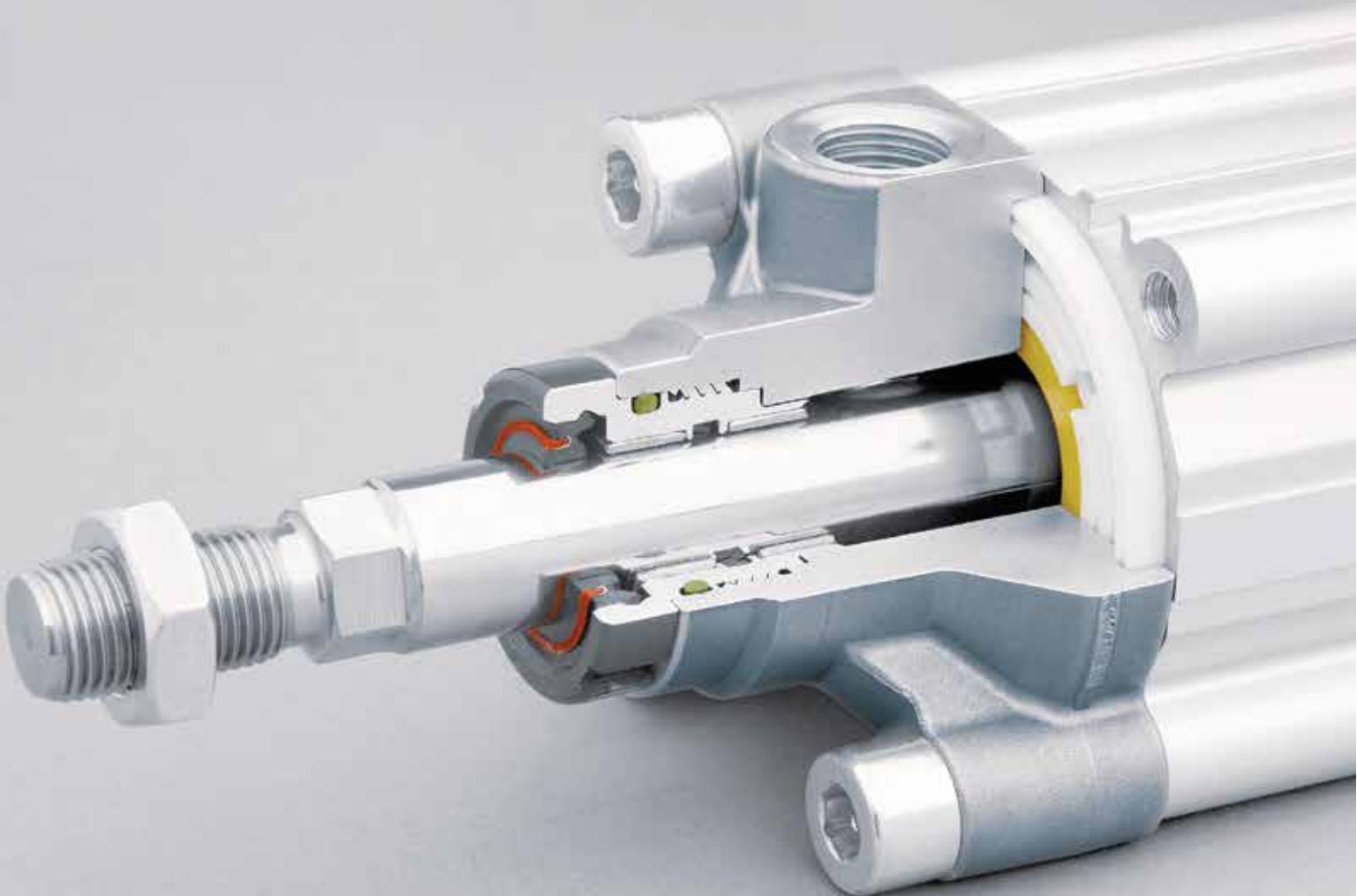


AVENTICS SMART PRODUCTS 2015



Smart Products. A Selection of Pneumatic Products



Welcome

This catalog offers a simple and practical guide to the most important pneumatic products in our range. It is especially to support the daily activities of our partners within the distribution.

The catalog will help you find the right product for your specific needs quickly and easily, and provides key technical information and identification data on the spot. It highlights important information about main components and accessories, and will guide you effectively through all possible pneumatic solutions.

The selection of products presented in the catalog is based on a strategic product orientation within the wide range of AVENTICS pneumatic solutions. Furthermore, all the needs of specific markets in our distribution network are included.

All other products and technical information are, of course, available in our online catalog and engineering tools.



4 **Online catalog**



5 **Configurator**

CAD

6 **CAD drawings**



8 **Circuit diagram software**



9 **Calculation programs**



10 **Product prices and delivery / eShop**



11 **Language options**



12 **Technical information**



13 **Archive and spare parts**

15 **Smart products**

15 **Actuators**

121 **Valves**

269 **Preparation of compressed air**

291 **Accessories**



Find your product with ease: Product searches in our online catalog

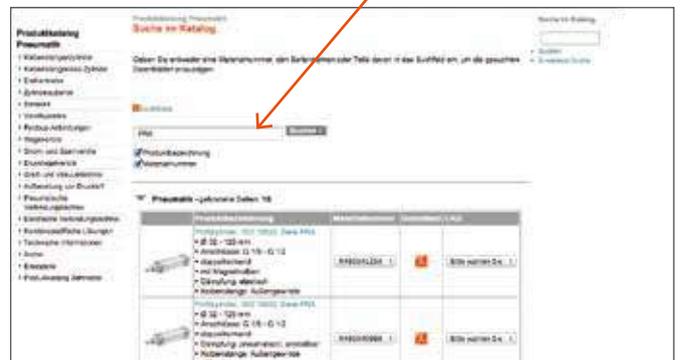
Efficient product searches

You need to search for components or systems for your designs on a daily basis. Our online catalog helps you to quickly and easily find what you're looking for, including all key product information. From piston rod cylinders to rotary actuators and valve systems, up to gripper and vacuum technology, our online catalog gives you a comprehensive overview of all our products. And if you require further details, click the PDF button to access product brochures with precise specifications.

The online catalog can be found at:

www.aventics.com/pneumatics-catalog

- Comprehensive product catalog
- Catalog brochure (PDF) for product series
- Data sheets (PDF) for all products
- Assembly and operating instructions (PDF)
- Declaration of incorporation or conformity
- Easy to navigate



- ▲ Select your product in the catalog (1, 2) or quickly find what you need using the search function (3).



Configuration made easy: The fast track to your individual configuration

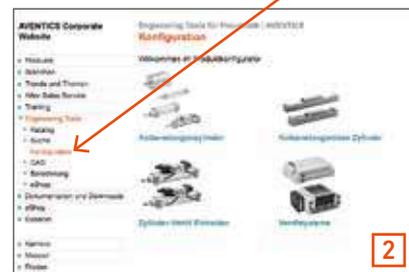
Just a few clicks and you're there

Rotary actuators, cylinders, valve systems, and many other components not only need to provide high quality, but also meet your specific requirements. Our online catalog configurator gives you everything you need to adapt individual products, precisely and professionally. You can select the required parameters and define stroke lengths, diameters, and even accessories. The configurator can be used to tailor products to your exact needs. If you have already found your product in the online shop, you can also link from the shop directly to the configurator.

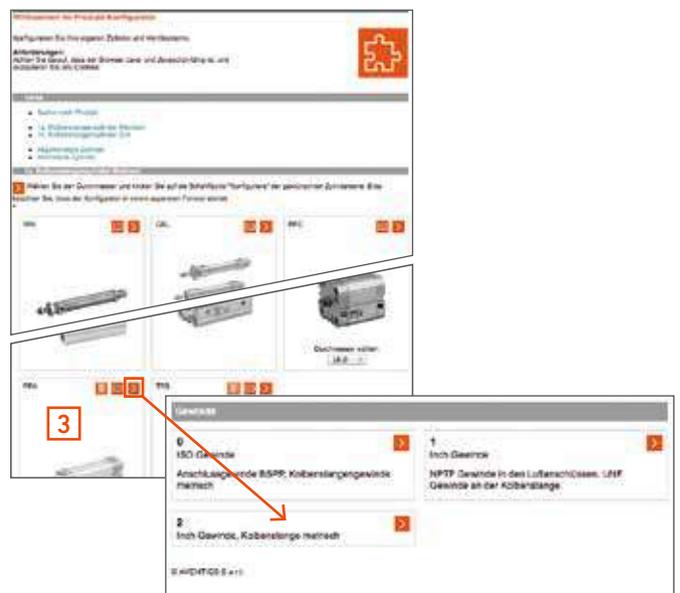
- Individual product configuration options
- Access to configuration via the product or the configurator
- Clear and direct menu prompts

Your configuration results provide the following information:

- Configuration documentation (PDF)
- Parts list
- Dimensioned drawing
- Item drawing
- 2D/3D CAD data
- Circuit diagram



▲ Open the configurator (1). Select your product from the product catalog (2).



▲ Click the arrow symbol to configure your product (3).

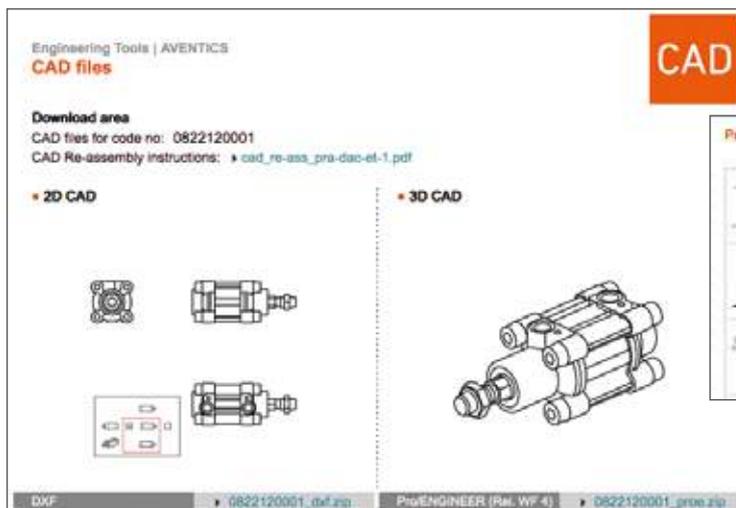
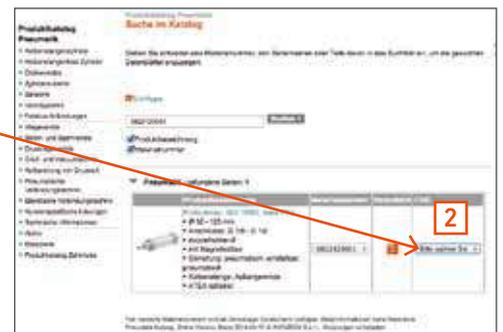
CAD One-stop CAD drawings: Visit our online catalog for a virtual model of your product

Our Engineering Tools deliver

CAD drawings are essential for your planning and product documentation. AVENTICS Engineering Tools provide complex technical drawings. You can easily find the matching CAD drawing for your product and download it free of charge. Even if you have already modified products using the configurator, our software still has no problem generating precise 2D and 3D CAD files.

- CAD drawings available for standard and individually

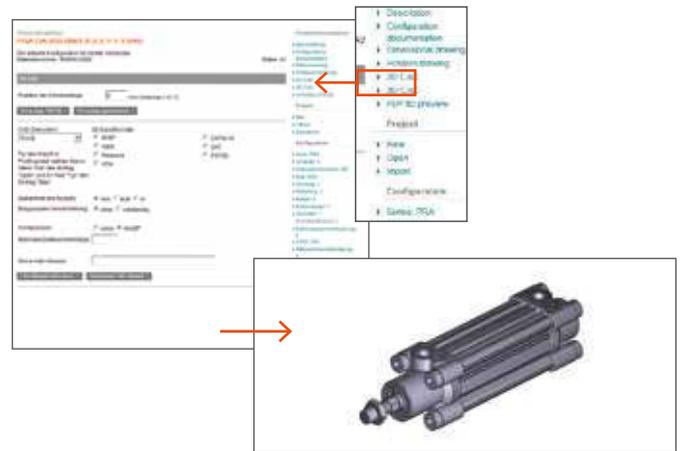
- configured products
- Click to download and use as needed
- Perfect for your planning and product documentation



- ▲ Enter a part number in the search field (1). Select the part number in the "CAD" table column (2). Also accessible via the "CAD" menu item (3).

Utmost flexibility: cylinders with user-defined stroke lengths

Need a CAD drawing for products you've already configured? No problem, AVENTICS Engineering Tools can help you here as well. If you need a cylinder with a specific stroke length, for example, simply enter this variable. A 2D or 3D CAD file can then be generated for the cylinder.

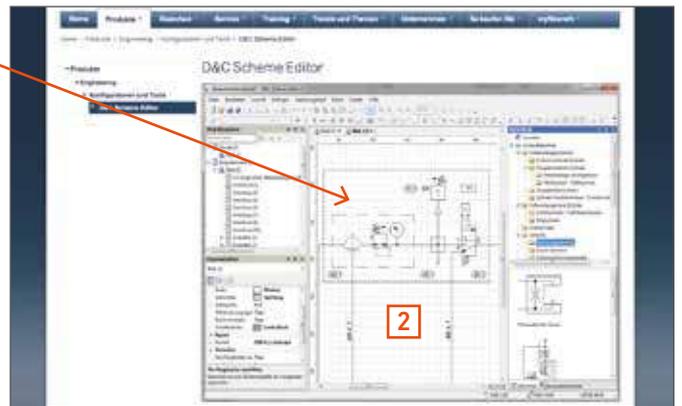


- ▲ Click the CAD symbol and enter the desired stroke length. Now click the double arrow symbol and choose between 2D or 3D files. Create a preview or send a direct request for the CAD model.





The perfect view: Generate highly accurate pneumatic circuit diagrams with the D&C Scheme Editor



▲ Select "Circuit diagram software" (1). Install the D&C Scheme Editor (2). Now you are ready to generate individual pneumatic circuit diagrams.

Get a clear view with our Engineering Tools

Whether you need a circuit diagram when starting to design your system, or for repairs and maintenance, you can use our software to generate a complete pneumatic circuit diagram. The D&C Scheme Editor from AVENTICS not only allows users to work with a variety of models and worksheets, including integration of drawing headers, but also provides all functions required to create a reliable pneumatic circuit diagram for your system. And all that while complying with DIN ISO 1219-2. Thanks to an extensive symbol library, you can easily and intuitively drag and drop objects to generate circuit diagrams, whether simple or highly complex. We offer these functions absolutely free of charge and you don't even need a CAD license. The D&C Scheme Editor can also be found in our online catalog and launched after a brief installation process.

■ Intuitive operation, even without CAD skills

- Compatible with Microsoft Windows XP, Windows Vista, Windows 7, and Windows 8
- Generate parts lists by matching symbols with part and item numbers
- Operates without a CAD license
- Freeware – totally free of charge



Find exactly what you need: Selecting components is a snap with the first-rate product calculation tools

Let us do the math

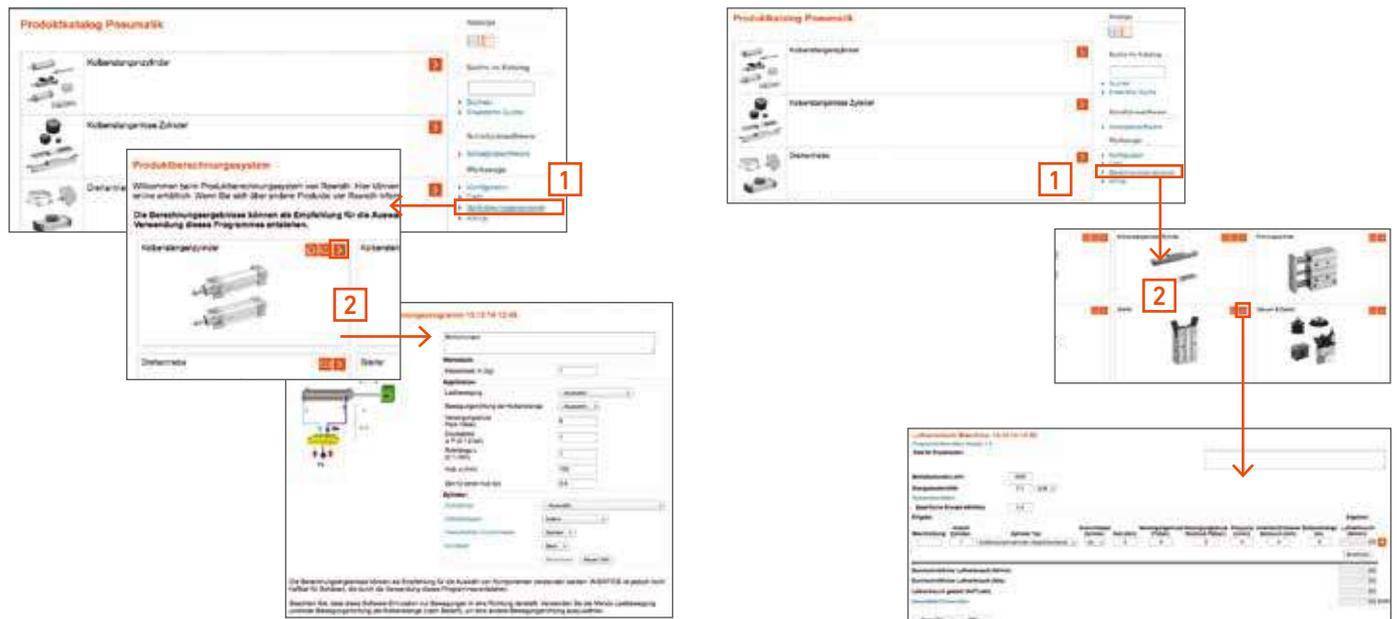
Need to compute the load for a guide cylinder? Our product calculation system lets you easily define specific variables. From the lever arm to supply pressure, up to the cylinder orientation, simply enter your exact parameters and our software calculates reliable results. This option is now available for a wide range of products in our online catalog. Just select your product and enter the relevant variables.

Need more efficiency? Optimize air consumption

Trying to identify ways to improve the energy efficiency of your systems? Substantial improvements can be achieved by optimizing air consumption. You can define how much air your machine uses with our calculation program. By entering various factors, such as operating hours and number of cylinders, you can calculate your average and total air consumption with

absolute precision. This allows you to identify improvement targets.

- Online calculation for numerous products
- Order required products directly online via a link to the product catalog
- Quick and free of charge
- Option to calculate air consumption, as well as additional features



▲ Launch the calculation tool (1). Select your product (2). A new window will open, where you can calculate your product.



Our extra service: Reliable pricing and delivery information in the eShop

Added certainty for your orders

Certainty in planning is an indispensable part of business. You can always count on us for accurate pricing and on-time deliveries. After you have chosen one or more of our products, you can view the respective prices and shipment or delivery dates in your shopping basket.

- Overview of all selected products
- Optimum planning with precise delivery information
- Product ordering directly via the eShop

- View prices and delivery times in the shopping basket

The image shows two screenshots from the AVENTICS eShop. The left screenshot displays a table of products with a red box labeled '1' highlighting a specific part number. An arrow points from this box to the right screenshot, which shows the detailed product page for 'Proficylinder, Serie PRA'. A red box labeled '2' highlights the 'Korb' (Basket) icon in the top navigation bar of the product page.

- ▲ Add a product to your shopping basket by clicking the part number (1). Click the basket in order to display its contents and continue your order (2).



Our Engineering Tools: 24/7 availability, worldwide, and in many different languages

We speak your language

When specialists around the world cooperate, they need language-specific support from our Engineering Tools. Whether you speak German, Spanish, or Russian: As an international company, we also work to enable global communication for our customers. Simply select your preferences and we'll soon be speaking the same language.

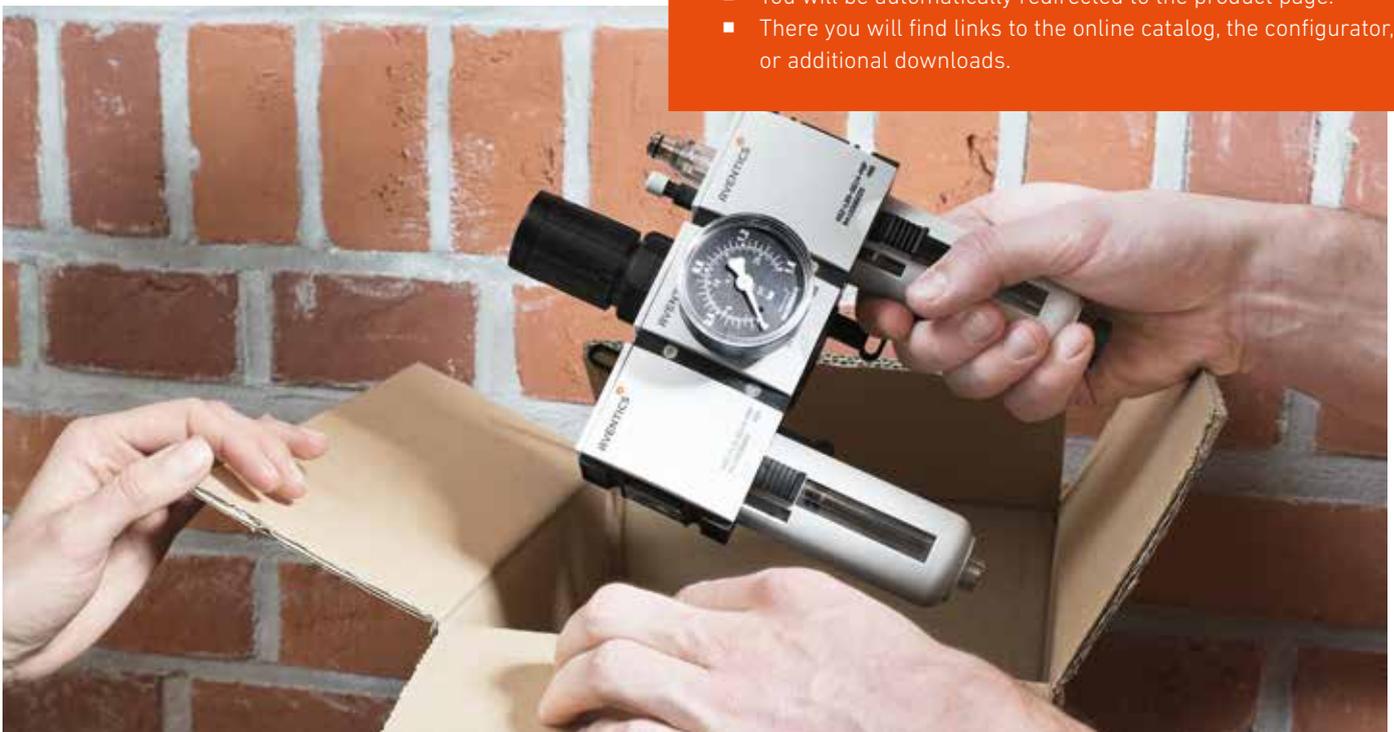
- Complete online catalog content available in 14 different languages
- All other Engineering Tools available in 8 languages
- Mobile access to the online catalog also available for tablets via the catalog app



- ▲ Click the "Language" item in the header and select the desired language version.

PN-QR-Info: The app for easy product searches using QR codes

- Simply scan the QR code on an AVENTICS product or enter the part number.
- You will be automatically redirected to the product page.
- There you will find links to the online catalog, the configurator, or additional downloads.





Our extra service: All technical information online and free of charge

Our media directory:

All product and marketing content at a glance

Do you need precise information for product assembly, commissioning, or maintenance? Are you searching for didactic materials on the topic of pneumatics? The AVENTICS media directory offers all this and more, including a wealth of additional information and catalogs in the various different categories. You can download these documents as PDFs and also print them out as needed. Use our instructions, view key data when you have a spare moment, or file the information away for a later date.

Our complete media directory is available at:

www.aventics.com/mediadirectory

Technical information:

Banded pneumatics expertise to supplement our catalog

You can obtain in-depth information sorted according to product groups in our collection of technical information. Everything you need to know about:

- Applicable guidelines such as ATEX or ISO standards
- Information on compressed air quality or IP protection classes
- Product-specific information on system configuration (calculating forces, air consumption, etc.)
- Storage and transport for our products

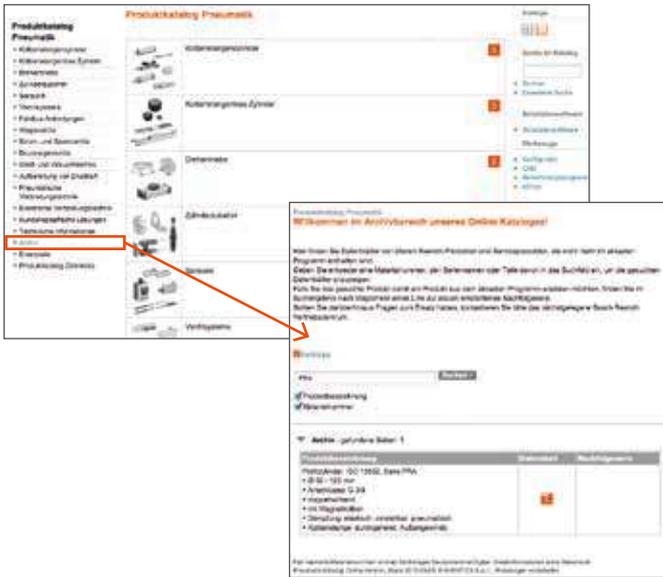
Select the category "Technical information" in our online catalog or perform a direct search in our media directory to download the current PDF version.



▲ Select "Technical information" to visit our comprehensive media directory.



Always find what you're looking for: Our online catalog even contains older products and spare parts



▲ Select "Archive" to search for your product in the database.

Seek and you will find – in our product archive!

If you have relied on products from AVENTICS for some time, you may not see them all in the current product overview. If you still need some technical information on a product, you will be able to find it in our archive, which is also available online. There, you can access the desired products using the search function. Product data sheets are, of course, also available for download. You can also quickly see whether a "successor series" is available for a product group.



▲ Select "Spare parts" to receive a comprehensive list.

Just the right spare part – your order's in the bag!

If you need a spare part, due to wear or for stock, you can find it in our online catalog. The complete list of our spare parts range is available for download online. You can use it to conveniently select the spare parts you need.

- Quickly find older products and technical data sheets
- Direct link to the sought-after product with potential successor series
- Complete spare parts range in one list

ACTUATORS

Profile cylinders

Series PRA
Series ICL

Tie rod cylinders

Series TRB
Series ITS

Mini cylinders

Series MNI
Series CSL-RD
Series ICM

Round cylinders

Series RPC

Short-stroke and compact cylinders

Series CCI
Series SSI

Guide cylinders

Series MSC
Series GPC

Rodless cylinders

Series RTC

Bellow actuators

Series BCP
Series BCR

Rack-and-pinion gears

Series RCM

Locking Elements

Series HU1
Series LU6

Proximity sensors

Series ST4
Series ST6

Distance measuring sensors

Series SM6
Series SM6-AL

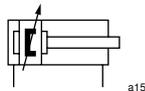
Piston rod cylinder ▶ Profile cylinder

Profile cylinder, ISO 15552, Series PRA

▶ Ø 32 - 125 mm ▶ Ports: G 1/8 - G 1/2 ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically, adjustable, pneumatically ▶ Piston rod: external thread ▶ ATEX optional



00134193



Standards	ISO 15552
Compressed air connection	internal thread
Working pressure min./max.	1.5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6,3 bar

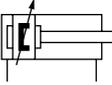
Piston Ø		[mm]	32	40	50	63	80
Retracting piston force		[N]	435	660	1035	1765	2855
Extracting piston force		[N]	505	790	1235	1960	3165
Cushioning length		[mm]	16.5	19	17	16.5	19.5
Cushioning energy		[J]	4.8	9	15	27	54
Weight	0 mm stroke	[kg]	0.5	0.65	1.06	1.42	2.37
	+10 mm stroke	[kg]	0.022	0.032	0.047	0.054	0.085
Stroke max.		[mm]	1600	1900	2100	2500	2800

Piston Ø		[mm]	100	125			
Retracting piston force		[N]	4635	7220			
Extracting piston force		[N]	4945	7725			
Cushioning length		[mm]	19.5	22			
Cushioning energy		[J]	88	140			
Weight	0 mm stroke	[kg]	3.51	6.72			
	+10 mm stroke	[kg]	0.1	0.15			
Stroke max.		[mm]	2800	2750			

Piston rod cylinder ▶ Profile cylinders

Profile cylinder, ISO 15552, Series PRA

▶ Ø 32 - 125 mm ▶ Ports: G 1/8 - G 1/2 ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically, adjustable, pneumatically ▶ Piston rod: external thread ▶ ATEX optional

	Piston Ø Piston rod thread Ports Piston rod Ø	32	40	50	63	80	
		M10x1,25 G 1/8 12	M12x1,25 G 1/4 16	M16x1,5 G 1/4 20	M16x1,5 G 3/8 20	M20x1,5 G 3/8 25	
	Stroke 25	0822120001	0822121001	0822122001	0822123001	0822124001	
	50	0822120002	0822121002	0822122002	0822123002	0822124002	
	80	0822120003	0822121003	0822122003	0822123003	0822124003	
	100	0822120004	0822121004	0822122004	0822123004	0822124004	
	125	0822120005	0822121005	0822122005	0822123005	0822124005	
	160	0822120006	0822121006	0822122006	0822123006	0822124006	
	200	0822120007	0822121007	0822122007	0822123007	0822124007	
	250	0822120008	0822121008	0822122008	0822123008	0822124008	
	320	0822120009	0822121009	0822122009	0822123009	0822124009	
	400	0822120010	0822121010	0822122010	0822123010	0822124010	
	500	0822120011	0822121011	0822122011	0822123011	0822124011	
		Piston Ø Piston rod thread Ports Piston rod Ø	100 M20x1,5 G 1/2 25	125 M27x2 G 1/2 32			
	Stroke 25	0822125001	R480140491				
	50	0822125002	R480140455				
	80	0822125003	R480141371				
	100	0822125004	R480079499				
	125	0822125005	R480140083				
	160	0822125006	R480079809				
	200	0822125007	R480140833				
	250	0822125008	R480141106				
320	0822125009	R480140759					
400	0822125010	R480141373					
500	0822125011	R480141666					

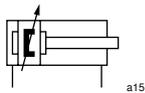
Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series TRB

▶ Ø 32 - 125 mm ▶ Ports: G 1/8 - G 1/2 ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically, adjustable, pneumatically ▶ piston rod: external thread ▶ ATEX optional



00134195



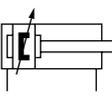
Standards	ISO 15552
Compressed air connection	Internal thread
Working pressure min./max.	1,5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Piston-Ø		[mm]	32	40	50	63	80
Retracting piston force		[N]	435	660	1035	1765	2855
Extracting piston force		[N]	505	790	1235	1960	3165
Cushioning length		[mm]	16,5	19	17	16,5	19,5
Cushioning energy		[J]	4,8	9	15	27	54
Weight	0 mm Stroke	[kg]	0,46	0,67	1,14	1,4	2,12
	+10 mm Stroke	[kg]	0,024	0,03	0,036	0,052	0,06
Stroke max.		[mm]	1600	1900	2100	2500	2800
Tie-rods			Stainless steel	Stainless steel	Steel galvanized	Steel galvanized	Steel galvanized

Piston-Ø		[mm]	100	125		
Retracting piston force		[N]	4635	7220		
Extracting piston force		[N]	4945	7725		
Cushioning length		[mm]	19,5	22		
Cushioning energy		[J]	88	140		
Weight	0 mm Stroke	[kg]	3,16	6,92		
	+10 mm Stroke	[kg]	0,065	0,21		
Stroke max.		[mm]	2800	2750		
Tie-rods			Steel galvanized	Steel galvanized		

Piston rod cylinder ▶ Tie rod cylinders
ISO 15552, Series TRB

▶ Ø 32 - 125 mm ▶ Ports: G 1/8 - G 1/2 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: pneumatically, adjustable, pneumatically ▶ Piston rod: External thread ▶ ATEX optional

	Piston-Ø Piston rod thread Ports Piston rod-Ø	32 M10x1,25 G 1/8 12	40 M12x1,25 G 1/4 16	50 M16x1,5 G 1/4 20	63 M16x1,5 G 3/8 20	80 M20x1,5 G 3/8 25	
	Stroke 25	0822340001	0822341001	0822342001	0822343001	0822344001	
	50	0822340002	0822341002	0822342002	0822343002	0822344002	
	80	0822340003	0822341003	0822342003	0822343003	0822344003	
	100	0822340004	0822341004	0822342004	0822343004	0822344004	
	125	0822340005	0822341005	0822342005	0822343005	0822344005	
	160	0822340006	0822341006	0822342006	0822343006	0822344006	
	200	0822340007	0822341007	0822342007	0822343007	0822344007	
	250	0822340008	0822341008	0822342008	0822343008	0822344008	
	320	0822340009	0822341009	0822342009	0822343009	0822344009	
	400	0822340010	0822341010	0822342010	0822343010	0822344010	
	500	0822340011	0822341011	0822342011	0822343011	0822344011	
		Piston-Ø Piston rod thread Ports Piston rod-Ø	100 M20x1,5 G 1/2 25	125 M27x2 G 1/2 32			
		Stroke 25	0822345001	0822306201			
		50	0822345002	0822306202			
		80	0822345003	0822306203			
		100	0822345004	0822306204			
		125	0822345005	0822306205			
		160	0822345006	0822306206			
		200	0822345007	0822306207			
	250	0822345008	0822306208				
	320	0822345009	0822306209				
	400	0822345010	0822306210				
	500	0822345011	0822306211				

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series PRA and TRB Accessories

Cylinder mountings

Piston-Ø	AB7, Bearing block with fixed bearing and foot	AB6, Clevis mounting	CS7, angled in acc. with VDMA	MP2, Clevis mounting	MP4, Rear eye for clevis mounting MP2, AB3	MP9, Clevis mounting with rubber bushing	MP2, Clevis mounting for rear eye MP9	Axle AA4
								
32	1825805275	1827001593	1827001784	1827001289	1827001283	3683203000	3682903590	1823120020
40	1825805276	1827001594	1827001785	1827001290	1827001284	3683204000	3682904590	1823120021
50	1825805277	1827001595	1827001786	1827001291	1827001285	3683205000	3682905590	1823120022
63	1825805278	1827002024	1827001787	1827001500	1827020086	3683206000	3682906590	1823120023
80	1825805279	1827001597	1827001788	1827001293	1827001287	3683208000	3682908590	1823120024
100	1825805280	1827001598	1827001789	1827001294	1827001288	3683210000	3682910590	1823120025
125	1825805281	1827001599	1827001790	1827004862	1827004866	-	2990602912	5236000092

Piston-Ø	AT4, bearing brackets MT4, MT5, MT6	MT4, Center trunnion mounting	MT5, MT6, Trunnion mounting, front or rear	MF1, MF2, Flange mounting	MP6, Rear eye with ball joint and foot	JP1, Intermediate flange for multi-position cylinders	MS1, Foot mounting
							
32	1827001603	1827003991	1827001609	1827001277	1827001619	1827020247	1827001271
40	1827001604	1827003992	1827001610	1827001278	1827001620	1827020248	1827001272
50	1827001604	1827003993	1827001611	1827001279	1827001621	1827020249	1827001273
63	1827001605	1827003994	1827002046	1827001499	1827020087	1827020250	1827001498
80	1827001605	1827003995	1827001613	1827001281	1827001623	1827020251	1827001275
100	1827001606	1827003996	1827001614	1827001282	1827001624	1827020252	1827001276
125	1827001606	1827003997	1827001615	1827004861	1827001625	1827020253	1827001310

Piston rod mountings

Piston-Ø	MR9, Nut for piston rod	PM5, Flexible spherical coupling	PM7, Flexible plate coupling	AP2, Rod clevis steel, galvanized	AP6, Ball eye rod end
					
32	1823300020	1826409002	1827001629	1822122024	1822124003
40	1823300021	1826409003	1827001630	1822122025	1822124004
50	1823300030	1826409004	1827001631	1822122005	1822124005
63	1823300030	1826409004	1827001631	1822122005	1822124005
80	1823300031	1826409005	1827001632	1822122004	1822124006
100	1823300031	1826409005	1827001632	1822122004	1822124006
125	1823300029	1826409006	1827001633	1827001493	1822124013

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series PRA and TRB
Accessories

Piston rod mountings

Piston-Ø	MSS Scraper, Brass -20 °C / +70 °C	MSS Scraper, Brass -20 °C / +120 °C	MSS Scraper, Polytetraflu- orethyle -20 °C / +70 °C	MSS Scraper, Polytetraflu- orethyle -20 °C / +120 °C	MSS Scraper, Polyester- elastomer
					
32	-	-	0496401107	0496401700	0496400704
40	0496400402	0496401409	0496401204	0496401808	0496400801
50	0496400518	0496401506	0496402103	0496401905	0496400909
63	0496400518	0496401506	0496402103	0496401905	0496400909
80	0496400607	0496401603	0496402200	0496402006	0496401018
100	0496400607	0496401603	0496402200	0496402006	0496401018
125	0496301404	0496303105	0496301706	0496303202	0496301307

Sensor, Series SM6

▶ 6 mm groove ▶ with cable ▶ Without wire end ferrule, tin-plated, 4-pin ▶ with distance measuring sensor, measurement range 32 - 256 mm

Cable length (m)	with cable, without wire end ferrule, tin-plated	with cable, plug
	4-pin	M8x1, 4-pin, with knurled screw
		
0,3	-	R412010142
	-	R412010144
	-	R412010263
	-	R412010265
	-	R412010410
	-	R412010412
	-	R412010414
	-	R412010416
2	R412010141	-
	R412010143	-
	R412010262	-
	R412010264	-
	R412010411	-
	R412010413	-
	R412010415	-
	R412010417	-

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series PRA and TRB
Accessories

Sensor, Series SM6-AL

▶ with cable ▶ plug, M8x1, 4-pin ▶ with distance measuring sensor, measurement range 107 - 1007 mm

	Cable length	Measurement range Max.	Overall length sensor A	Part No.
	[m]	[mm]	[mm]	
	0,3	107	109	R412010880
		143	145	R412010881
		179	181	R412010882
		215	217	R412010883
		251	253	R412010884
		287	289	R412010885
		323	325	R412010886
		359	361	R412010887
		395	397	R412010888
		431	433	R412010889
		467	469	R412010890
		503	505	R412010891
		539	541	R412010892
		575	577	R412010893
		611	613	R412010894
		647	649	R412010895
		683	685	R412010896
		719	721	R412010897
		755	757	R412010898
		791	793	R412010899
827	829	R412010900		
863	865	R412010901		
899	901	R412010902		
935	937	R412010903		
971	973	R412010904		
1007	1009	R412010905		

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series PRA and TRB
Accessories

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	0830100629
			5	0830100630
		electronic PNP	3	0830100631
			5	0830100632

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100434
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,5	R412004762 0830100437

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100488
		electronic PNP	0,3	0830100489

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100432
			0,3	0830100433
		electronic PNP	3	R412010753

Sensor mounting	for Series ST6	for Series ST6
∅		
32-40	1827020282	-
50-63	1827020283	-
80-100	1827020284	-
125	-	1827020292

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series PRA and TRB

Accessories

GU1, Guide unit

▶ Ø 32 - 100 mm ▶ plain bearing ▶ for Tie rod cylinders ISO 15552



00105859

Ambient temperature min./max.

-20 °C / 80 °C

Materials:

Bearing housing

Aluminum, black anodized

Bearing Type

Sintered bronze

Carrying plate

Aluminum, black anodized

Flexible coupling in carrying plate

Stainless steel

Guide rods

Stainless steel, smooth rolled

Suitable piston-Ø		[mm]	32	40	50	63	80
Weight	0 mm Stroke	[kg]	0,63	0,946	1,356	1,655	3,45
	10 mm Stroke	[kg]	0,0122	0,0176	0,0176	0,0176	0,0222

Suitable piston-Ø		[mm]	100				
Weight	0 mm Stroke	[kg]	4,69				
	10 mm Stroke	[kg]	0,0222				

	Suitable piston-Ø [mm]	32	40	50	63	80
	Stroke 50	0821401010	0821401020	0821401030	0821401480	0821401050
	100	0821401011	0821401021	0821401031	0821401481	0821401051
	160	0821401012	0821401022	0821401032	0821401482	0821401052
	200	0821401013	0821401023	0821401033	0821401483	0821401053
	250	0821401014	0821401024	0821401034	0821401484	0821401054
	320	0821401015	0821401025	0821401035	0821401485	0821401055
	400	0821401016	0821401026	0821401036	0821401486	0821401056
	500	0821401017	0821401027	0821401037	0821401487	0821401057
	600	0821401018	0821401028	0821401038	0821401488	0821401058
	800	0821401019	0821401029	0821401039	0821401489	0821401059
	1000	0821401500	0821401502	0821401504	0821401490	0821401508
	1200	0821401501	0821401503	0821401505	0821401491	0821401509
		Suitable piston-Ø [mm]	100			
	Stroke 50	0821401060				
	100	0821401061				
	160	0821401062				
	200	0821401063				
	250	0821401064				
	320	0821401065				
	400	0821401066				
	500	0821401067				
	600	0821401068				
	800	0821401069				
1000	0821401510					
1200	0821401511					

Piston rod cylinder ▶ Tie rod cylinders

ISO 1552, Series PRA and TRB
 Accessories

GH2, Guide unit

▶ Ø 32 - 100 mm ▶ Linear-Ball bearing ▶ for Tie rod cylinders ISO 1552



00105863

Ambient temperature min./max.

-20 °C / 80 °C

Materials:

Bearing Type

Steel

Carrying plate

Aluminum, black anodized

Flexible coupling in carrying plate

Stainless steel

Guide rods

Steel, hardened

Suitable piston-Ø	[mm]	32	40	50	63	80	
Weight	0 mm Stroke	[kg]	1,3	2,3	3,7	4,7	8,8
	10 mm Stroke	[kg]	0,009	0,016	0,025	0,025	0,039

Suitable piston-Ø	[mm]	100				
Weight	0 mm Stroke	[kg]	11,1			
	10 mm Stroke	[kg]	0,039			

Suitable piston-Ø [mm]	32	40	50	63	80
Stroke 50	0821401320	0821401330	0821401340	0821401380	-
100	0821401321	0821401331	0821401341	0821401381	0821401360
200	0821401322	0821401332	0821401342	0821401382	0821401361
320	0821401323	0821401333	0821401343	0821401383	0821401362
500	0821401324	0821401334	0821401344	0821401384	0821401363
600	0821401325	0821401335	0821401345	0821401385	0821401364
800	0821401326	0821401336	0821401346	0821401386	0821401365
1000	0821401327	0821401337	0821401347	0821401387	0821401366
1200	0821401328	0821401338	0821401348	0821401388	0821401367
Suitable piston-Ø [mm]	100				
Stroke 50	-				
100	0821401370				
200	0821401371				
320	0821401372				
500	0821401373				
600	0821401374				
800	0821401375				
1000	0821401376				
1200	0821401377				

Piston rod cylinder ▶ Tie rod cylinders

ISO 1552, Series PRA and TRB Accessories

GH1, Guide unit

▶ Ø 32 - 100 mm ▶ plain bearing ▶ for Tie rod cylinders ISO 1552



00105863

Ambient temperature min./max.

-20 °C / 80 °C

Materials:

Bearing housing
 Bearing Type
 Carrying plate
 Flexible coupling in carrying plate
 Guide rods

Aluminum, black anodized
 Sintered bronze
 Aluminum, black anodized
 Stainless steel
 Stainless steel, smooth rolled

Suitable piston-Ø		[mm]	32	40	50	63	80
Weight	0 mm Stroke	[kg]	1,3	2,3	3,7	4,7	8,8
	10 mm Stroke	[kg]	0,009	0,016	0,025	0,025	0,039

Suitable piston-Ø		[mm]	100				
Weight	0 mm Stroke	[kg]	11,1				
	10 mm Stroke	[kg]	0,039				

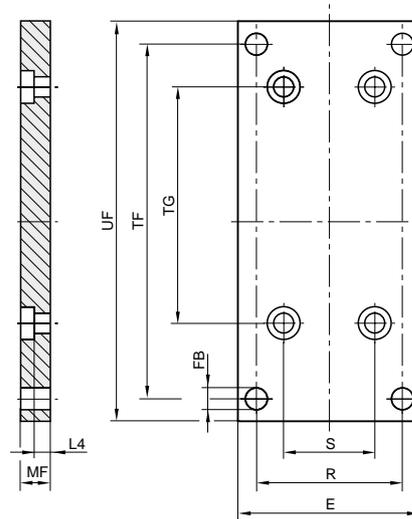
Suitable piston-Ø [mm]		32	40	50	63	80
Stroke 50		0821401220	0821401230	0821401240	0821401280	-
	100	0821401221	0821401231	0821401241	0821401281	0821401260
	160	0821401222	0821401232	0821401242	0821401285	-
	200	0821401223	0821401233	0821401243	0821401282	0821401261
	250	0821401224	0821401234	0821401244	0821401286	-
	320	0821401225	0821401235	0821401245	0821401283	0821401262
	400	0821401226	0821401236	0821401246	0821401287	-
	500	0821401227	0821401237	0821401247	0821401284	0821401263
	600	0821401228	0821401238	0821401249	0821401288	0821401264
	800	0821401229	0821401239	0821401474	0821401289	0821401265
	1000	0821401470	0821401472	0821401475	0821401290	0821401266
	1200	0821401471	0821401473	0821401476	0821401291	0821401267
	Suitable piston-Ø [mm]		100			
Stroke 50		-				
	100	0821401270				
	160	-				
	200	0821401271				
	250	-				
	320	0821401272				
	400	-				
	500	0821401273				
	600	0821401274				
	800	0821401275				
	1000	0821401276				
	1200	0821401277				

Piston rod cylinder ▶ Tie rod cylinders
**ISO 15552, Series PRA and TRB
Accessories**
Flange mounting

▶ for Series for Guide units ,U' version



00133744



00127854

Part No.	Piston-Ø	For series	Ø	E	FB	L4	MF	R	S	TF	TG	UF
1827010494	80	for guide units version, U'	80	100	12	9	16	80	50	195	130	220
1827010495	100	for guide units version, U'	100	120	14	9	16	95	--	217	150	245

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series PRA and TRB
Accessories

Flange mounting

▶ For series for guide units, version ,H'



00106403



00106476

Part No.	Piston-Ø	For series	Ø	E	Ø FB	L4	MF	R	TF	TG	UF
1821038079	32	for guide units version ,H'	32	50	6,6	4,5	10	32,5	116	61	130
1821038163	12, 16	for guide units version ,H'	12/16	50	5,5	4,5	10	32,5	50	23	64
1821038078	20, 25	for guide units version ,H'	20/25	50	6,6	4,5	10	32,5	50	23	64
1821038080	40	for guide units version ,H'	40	55	9	4,5	10	38	140	69	160
1821038081	50	for guide units version ,H'	50	70	9	6	12	46,5	160	85	180
1821038082	63	for guide units version ,H'	63	80	9	6	12	56,5	175	100	195
1821038083	80	for guide units version ,H'	80	100	12	9	16	72	218	130	242
1821038084	100	for guide units version ,H'	100	120	14	9	16	89	245	150	272

Piston rod cylinder ▶ Tie rod cylinders

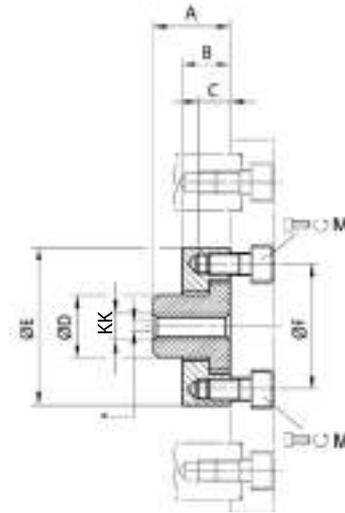
ISO 15552, Series PRA and TRB
Accessories

GU3, Flexible coupling form C

▶ for guide units ▶ version ,U' and ,H', Ø12–63



00136409



00132063

* Radial joint from 2 - 2,5 mm

Scope of delivery: flexible coupling incl. mounting screws

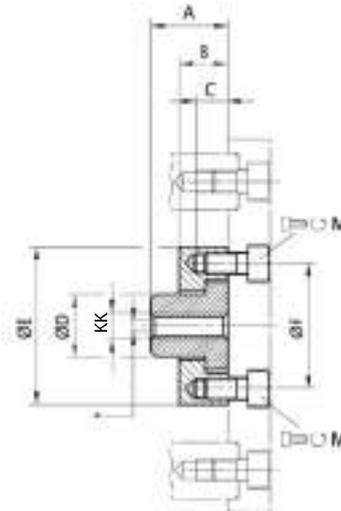
Part No.	KK	Ø	M	A	B	C	D	ØE	ØF	Material
1827020170	M6	12/16	2x M4x10	18	7	7	10	22	15	Stainless steel
1827020174	M12x1,25	40	2x M6x12	22	14	8	18	45	36	Stainless steel
1827020175	M16x1,5	50/63	4x M6x14	26	14	8	24	54	45	Stainless steel

GU3, Flexible coupling form B

▶ for guide units ▶ version ,H', Ø20–100



00106407



00105878_a

* Radial joint from 1,5 - 1,8 mm

Scope of delivery: flexible coupling incl. mounting screws

Part No.	KK	Ø	M	A	B	C	D	ØE	ØF	Material
1827020177	M8	20	2x M5x12	22	14	6	14,5	33	26	Stainless steel
1827020178	M10x1,25	25/32	2x M5x12	17	14	6	14,5	33	26	Stainless steel
1827020179	M20x1,5	80/100	4x M6x20	32	14	11,5	32	60	51	Stainless steel

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series PRA and TRB
Accessories

Holding unit, HU1

▶ Ø32 - 100 mm ▶ hold: spring force, release: compressed air



00104762

Function	Hold with clamping jaws
release pressure min./max.	4 bar / 8 bar
Ambient temperature min./max.	-10 °C / +60 °C
Medium temperature min./max.	-10 °C / +60 °C
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³

Materials:	Aluminum, black anodized
Housing	

	Piston-Ø	Suitable piston rod-Ø	Piston rod extension	Compressed air connection	Static holding force	Weight	Part No.
	[mm]	[mm]	[mm]		[N]	[kg]	
	32	12	42	M5	650	0,2	0821401165
	40	16	45	G 1/8	1100	0,27	0821401166
	50	20	57	G 1/8	1600	0,57	0821401167
	63	20	57	G 1/8	2500	0,8	0821401168
	80	25	77	G 1/8	4000	1,85	0821401169
	100	25	77	G 1/8	6300	2,9	0821401170

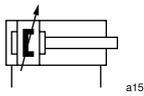
Holding force at 0 bar

Piston rod cylinder ▶ Profile cylinders
Profile cylinder, ISO 15552, Series ICL

▶ Ø 32 - 125 mm ▶ Ports: G 1/8 - G 1/2 ▶ double-acting ▶ with Magnetic piston ▶ Cushioning: pneumatically, adjustable ▶ corrosion-resistant ▶ Piston rod: External thread ▶ Suitable for use in food processing



00120530



a15

Standards	ISO 15552
Compressed air connection	Internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³
Pressure for determining piston forces	6,3 bar

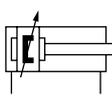
Piston Ø	[mm]	32	40	50	63	80
Retracting piston force	[N]	435	665	1039	1766	2855
Extracting piston force	[N]	507	792	1237	1964	3167
Cushioning length	[mm]	11,5	15	17	16,5	19,5
Cushioning energy	[J]	4,8	9	15	27	54
Weight	0 mm Stroke	0,45	0,76	1,1	1,17	2,5
	+10 mm Stroke	0,02	0,029	0,045	0,049	0,078
Stroke max.	[mm]	1850	1850	1850	1850	1800

Piston Ø	[mm]	100	125			
Retracting piston force	[N]	4639	7422			
Extracting piston force	[N]	4948	7731			
Cushioning length	[mm]	19,5	22			
Cushioning energy	[J]	88	140			
Weight	0 mm Stroke	3,7	6,9			
	+10 mm Stroke	0,1	0,131			
Stroke max.	[mm]	1800	1800			

Piston rod cylinder ▶ Profile cylinders

Profile cylinder, ISO 15552, Series ICL

▶ Ø 32 - 125 mm ▶ Ports: G 1/8 - G 1/2 ▶ double-acting ▶ with Magnetic piston ▶ Cushioning: pneumatically, adjustable ▶ corrosion-resistant ▶ Piston rod: External thread ▶ Suitable for use in food processing

	Piston Ø Piston rod thread Ports Piston rod-Ø	32	40	50	63	80	
		M10x1,25 G 1/8 12	M12x1,25 G 1/4 16	M16x1,5 G 1/4 20	M16x1,5 G 3/8 20	M20x1,5 G 3/8 25	
	Stroke 25	R480060005	R480060018	R480060026	R480060036	R480060060	
	50	R480058830	R480059528	R480060027	R480058890	R480060061	
	80	R480060006	R480060019	R480060028	R480060037	R480060063	
	100	R480059075	R480060020	R480060029	R480060038	R480060064	
	125	R480060007	R480060021	R480060030	R480060039	R480059699	
	160	R480060008	R480059526	R480060031	R480060040	R480060065	
	200	R480060009	R480060022	R480060032	R480060041	R480059532	
	250	R480060010	R480060023	R480060033	R480060043	R480060066	
	320	R480060011	R480060024	R480060034	R480060042	R480060067	
	400	R480060012	R480059529	R480058941	R480060044	R480060068	
	500	R480060013	R480060025	R480060035	R480060045	R480060069	
		Piston Ø Piston rod thread Ports Piston rod-Ø	100 M20x1,5 G 1/2 25	125 M27x2 G 1/2 32			
	Stroke 25		R480060070	R480060080			
	50		R480060071	R480060081			
	80		R480060072	R480060082			
	100		R480060073	R480060083			
	125		R480060074	R480060084			
	160		R480060075	R480060085			
	200		R480060076	R480060086			
	250		R480058909	R480060087			
320		R480060077	R480060088				
400		R480060078	R480060089				
500		R480060079	R480060091				

Piston rod cylinder ▶ Profile cylinders

ISO 15552, Series ICL Accessories

Cylinder mountings

Piston Ø	AB7, Bearing block with fixed bearing and foot	CS7, angled, clinder mounting in accordance with VDMA	AB6, Clevis mounting	MP2, Clevis mounting	MP2, Clevis mounting for MP9	MP4, Rear eye for Clevis mounting MP2, AB3	MP9, Clevis mounting with rubber bushing	Axle AA4
								
32	1825805275	1827001784	1827001593	1827001289	3682903590	1827001283	3683203000	1823120020
40	1825805276	1827001785	1827001594	1827001290	3682904590	1827001284	3683204000	1823120021
50	1825805277	1827001786	1827001595	1827001291	3682905590	1827001285	3683205000	1823120022
63	1825805278	1827001787	1827002024	1827001500	3682906590	1827020086	3683206000	1823120023
80	1825805279	1827001788	1827001597	1827001293	3682908590	1827001287	3683208000	1823120024
100	1825805280	1827001789	1827001598	1827001294	3682910590	1827001288	3683210000	1823120025
125	1825805281	1827001790	1827001599	1827004862	2990602912	1827004866	-	5236000092

Piston Ø	AT4, bearing brackets MT4, MT5, MT6	MT4, Center trunnion mounting	MF1, MF2, Flange mounting	MT5, MT6, Trunnion mounting, front or rear	MP6, Rear eye with ball joint and foot	JP1, Intermediate flange for multi-position cylinders	AA6, Non-rotating axle for clevis mountings AB6
							
32	1827001603	2795010320	1827001277	1827001609	1827001619	1827020247	5230000082
40	1827001604	2795010400	1827001278	1827001610	1827001620	1827020248	5231000082
50	1827001604	2795010500	1827001279	1827001611	1827001621	1827020249	5232000082
63	1827001605	2795010630	1827001499	1827002046	1827020087	1827020250	5233000082
80	1827001605	2795010800	1827001281	1827001613	1827001623	1827020251	5234000082
100	1827001606	2795011000	1827001282	1827001614	1827001624	1827020252	5235000082
125	1827001606	2795011250	1827004861	1827001615	1827001625	1827020253	5236000082

Piston Ø	MS1, Foot mounting	Blanking screw
		
32	1827001271	8103190464
40	1827001272	3590304000
50	1827001273	3590305000
63	1827001498	3590305000
80	1827001275	3590308000
100	1827001276	3590308000
125	1827001310	2990600312

Piston rod cylinder ▶ Profile cylinders

ISO 15552, Series ICL Accessories

Piston rod mountings

Piston Ø	PM5, Flexible spherical coupling	AP2, Rod clevis Galvanized steel	AP2, Rod clevis Stainless steel	AP6, Ball eye rod end	AP6, Ball eye rod end, Stainless, Steel	MR9, Nut for Piston rod
						
32	1826409002	1822122024	3590502000	1822124003	8958209032	8103190464
40	1826409003	1822122025	3590504000	1822124004	8958209042	3590304000
50	1826409004	1822122005	3590505000	1822124005	8958209052	3590305000
63	1826409004	1822122005	3590505000	1822124005	8958209052	3590305000
80	1826409005	1822122004	3590508000	1822124006	8958209062	3590308000
100	1826409005	1822122004	3590508000	1822124006	8958209062	3590308000
125	1826409006	1827001493	-	1822124013	8958209072	2990600312

Sensors

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412007815
		Reed	3	0830100629
	Reed	5	0830100630	
		electronic PNP	3	0830100631
		electronic PNP	5	0830100632
		electronic PNP	5	0830100634

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Plug, M8, 3-pin, with Knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412004761
		Reed	0,3	0830100434
		Reed	0,3	R412007840
		Reed	0,5	0830100436
		electronic PNP	0,3	0830100435
		electronic PNP	0,3	R412004762
		electronic PNP	0,5	0830100437
		electronic PNP	0,5	0830100437

Piston rod cylinder ▶ Profile cylinders

ISO 15552, Series ICL

Accessories

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Plug, M8, 3-pin

		Type of contact	Cable length [m]	Part No.
		Reed	0,3	0830100488
		electronic PNP	0,3	0830100489

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Plug, M12, 3-pin, with Knurled screw

		Type of contact	Cable length [m]	Part No.
		Reed	0,3	0830100432
		electronic PNP	0,3	0830100433
			3	R412010753

Sensor mounting	For Series ST6
Ø	
32-125	R402000040

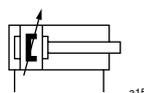
Piston rod cylinder ▶ Tie rod cylinders

Tie rod cylinder, ISO 15552, Series ITS

▶ Ø 160 - 320 mm ▶ Ports: G 3/4 - G 1 ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically, adjustable ▶ Piston rod: external thread ▶ ATEX optional



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Standards	ISO 15552
Compressed air connection	Internal thread
Working pressure min./max.	1,5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Piston Ø	[mm]	160	200	250	320
Retracting piston force	[N]	11650	18640	29124	47778
Extracting piston force	[N]	12436	19416	30337	49705
Cushioning length	[mm]	50	50	64	55
Cushioning energy	[J]	160	170	180	190
Weight	0 mm Stroke	11,6	14,5	30	61,4
	+10 mm Stroke	0,268	0,32	0,38	1,18
Stroke max.	[mm]	2700	2700	2500	2500

	Piston Ø	160	200	250	320
	Piston rod thread	M36x2	M36x2	M42x2	M48x2
	Ports	G 3/4	G 3/4	G 1	G 1
	Piston rod-Ø	40	40	50	63
	Stroke 25	R480627295	R480627367	R480627451	R480627463
	50	R480627296	R480627368	R480627452	R480627464
	80	R480627297	R480627369	R480627453	R480627465
	100	R480627298	R480627370	R480627454	R480627466
	125	R480627299	R480627371	R480627455	R480627467
	160	R480627300	R480627372	R480627456	R480627468
	200	R480627301	R480627373	R480627457	R480627469
	250	R480627302	R480627374	R480627458	R480627470
	320	R480627303	R480627375	R480627459	R480627471
	400	R480627304	R480627376	R480627460	R480627472
500	R480627305	R480627377	R480627461	R480627473	

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series ITS

Accessories

Cylinder mountings

Piston Ø	MF1, MF2, Flange mounting	MS1, Foot mounting	CS7, angled VDMA	AB6, Clevis mounting	MP2, Clevis mounting	MP6, Rear eye with ball joint and foot	AT4, Bea- ring block for MT4, MT5, MT6	AB7, Bea- ring block with fixed bearing and foot
								
160	1827001460	1827001457	1827001791	1827001600	1827004863	1827001626	1827001607	1825805282
200	1827001461	1827001458	1827001792	1827001601	1827004864	1827001627	1827001607	1825805283
250	1827001462	1827001459	1827001793	1827001602	1827004865	1827001628	1827001608	1825805284
320	5239016012	5239010502	5239013442	5239013432	5239813402	5239013452	R412018903	5239013422

Piston Ø	MP4, Rear eye for clevis mount- ing MP2, AB3	Axle AA4	AA6, Axle with non-rotat- ing axle for AB6	MT5, MT6, Trunnion mounting, front or rear	MSS Scraper, Acrylonitrile butadiene rubber	MSS Scraper, Fluor- Rubber	MSS Scraper, brass -20 °C/+80 °C	MSS Scraper, brass -10 °C/+150 °C
								
160	1827004867	5237000092	5237000082	1827001616	R412018749	R412018751	R412018750	R412018752
200	1827004868	5237000092	5237000082	1827001617	R412018749	R412018751	R412018750	R412018752
250	1827004869	5239000092	5239000082	1827001618	R412018753	R412018755	R412018758	R412018754
320	5239813412	5239010092	5239010082	-	R412018757	R412018759	R412018760	R412018758

Piston rod mountings

Piston Ø	MR9, Nut for piston rod	PM5, Flexible spherical coupling	AP2, Rod clevis, steel, galva- nized	AP6, Ball eye rod end
				
160	8103190414	1826409007	1827001471	1822124008
200	8103190414	1826409007	1827001471	1822124008
250	8103190424	R412007729	1827001472	1822124009
320	8103190434	-	8958019332	8958208842

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series ITS

Accessories

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412007815
		Reed	3	0830100629
			5	0830100630
		electronic PNP	3	0830100631
			5	0830100632
			5	0830100634

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412004761
			0,3	0830100434
			0,3	R412007840
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,3	R412004762
			0,5	0830100437

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100488
		electronic PNP	0,3	0830100489

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ Plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100432
			0,3	0830100433
		electronic PNP	3	R412010753

Sensor mounting	For Series ST6
∅	
160-200	R412017979
205-320	R412017980

Piston rod cylinder ▶ Tie rod cylinders

ISO 15552, Series ITS

Accessories

Sensor, Series SM6-AL

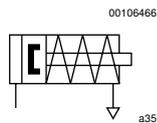
▶ with cable ▶ plug, M8x1, 4-pin ▶ with distance measuring sensor, measuring 107 - 1007 mm

	Cable length	Measurement range Max.	Overall length sensor A	Part No.
	[m]	[mm]	[mm]	
	0,3	107	109	R412010880
		143	145	R412010881
		179	181	R412010882
		215	217	R412010883
		251	253	R412010884
		287	289	R412010885
		323	325	R412010886
		359	361	R412010887
		395	397	R412010888
		431	433	R412010889
		467	469	R412010890
		503	505	R412010891
		539	541	R412010892
		575	577	R412010893
		611	613	R412010894
		647	649	R412010895
		683	685	R412010896
		719	721	R412010897
		755	757	R412010898
		791	793	R412010899
827	829	R412010900		
863	865	R412010901		
899	901	R412010902		
935	937	R412010903		
971	973	R412010904		
1007	1009	R412010905		

Piston rod cylinder ▶ Mini cylinders

Mini cylinder ISO 6432, Series MNI

▶ Ø 10 - 25 mm ▶ Ports: M5 - G 1/8 ▶ single-acting, retracted without pressure ▶ with magnetic piston ▶ cushioning: elastic ▶ corrosion-protected ▶ with integrated rear eye ▶ Piston rod: external thread



Standards	ISO 6432
Compressed air connection	Internal thread
Working pressure min./max.	2 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6,3 bar

Piston Ø	[mm]	10	12	16	20	25
Extracting piston force	[N]	41	60,2	102,2	174,6	279,6
Spring force min. - max.	[N]	5,2 - 8,4	6,7 - 11	14,2 - 24,4	12,8 - 23,4	19,2 - 29,4
Impact energy	[J]	0,04	0,07	0,14	0,23	0,35
Weight	0 mm Stroke	0,03	0,06	0,075	0,14	0,23
	+10 mm Stroke	0,005	0,006	0,007	0,016	0,024
Stroke max.	[mm]	40	50	50	50	50
Working pressure min./max.	[bar]	1 - 10	1 - 10	1 - 10	1 - 10	1 - 10

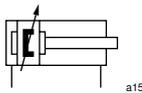
	Piston Ø [mm]	10	12	16	20	25
	Piston rod thread	M4	M6	M6	M8	M10x1,25
	Ports	M5	M5	M5	G 1/8	G 1/8
	Piston rod-Ø [mm]	4	6	6	8	10
	Cylinder outer thread	M12x1,25	M16x1,5	M16x1,5	M22x1,5	M22x1,5
	Stroke 10	0822430301	0822431301	0822432301	0822433301	0822434301
	25	0822430302	0822431302	0822432302	0822433302	0822434302
	40	0822430303	R480609773	R412009548	R480609780	R480609781
	50	-	0822431303	0822432303	0822433303	0822434303

Piston rod cylinder ▶ Mini cylinders
Mini cylinder, ISO 6432, Series MNI

▶ Ø 16 - 25 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically, adjustable ▶ corrosion-protected ▶ with integrated rear eye ▶ Piston rod: external thread

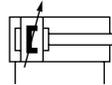


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Standards	ISO 6432
Compressed air connection	Internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6,3 bar

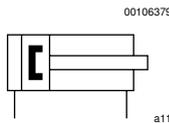
Piston Ø		[mm]	16	20	25		
Retracting piston force		[N]	109	166	260		
Extracting piston force		[N]	127	198	309		
Cushioning length		[mm]	9	13	17,5		
Cushioning energy		[J]	0,6	1,5	2,3		
Weight	0 mm Stroke	[kg]	0,1	0,16	0,265		
	+10 mm Stroke	[kg]	0,0055	0,009	0,013		
Stroke max.		[mm]	800	1100	1300		

	Piston Ø [mm]	16	20	25		
	Piston rod thread	M6	M8	M10x1,25		
	Ports	M5	G 1/8	G 1/8		
	Piston rod-Ø [mm]	6	8	10		
	Cylinder outer thread	M16x1,5	M22x1,5	M22x1,5		
	Stroke 10	0822332501	0822333501	0822334501		
	25	0822332502	0822333502	0822334502		
	50	0822332503	0822333503	0822334503		
	80	0822332504	0822333504	0822334504		
	100	0822332505	0822333505	0822334505		
	125	0822332506	0822333506	0822334506		
	160	0822332507	0822333507	0822334507		
	200	0822332508	0822333508	0822334508		
	250	0822332509	0822333509	0822334509		
	320	0822332510	0822333510	0822334510		
	400	0822332511	0822333519	0822334511		
500	0822332512	0822333541	0822334512			

Piston rod cylinder ▶ Mini cylinders

Mini cylinder, ISO 6432, Series MNI

▶ Ø 10 - 25 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with Magnetic piston ▶ Cushioning: elastic ▶ corrosion-protected ▶ with integrated Rear eye ▶ Piston rod: External thread ▶ ATEX optional



Standards	ISO 6432
Compressed air connection	Internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-25°C / +80°C
Medium temperature min./max.	-25°C / +80°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Piston Ø	[mm]	10	12	16	20	25
Retracting piston force	[N]	42	53	109	166	260
Extracting piston force	[N]	49	71	127	198	309
Impact energy	[J]	0,04	0,07	0,14	0,23	0,35
Weight	0 mm Stroke	0,042	0,073	0,091	0,149	0,249
	+10 mm Stroke	0,0024	0,0046	0,0055	0,009	0,013
Stroke max.	[mm]	250	600	800	1100	1300

	Piston Ø [mm]	10	12	16	20	25
	Piston rod thread	M4	M6	M6	M8	M10x1,25
	Ports	M5	M5	M5	G 1/8	G 1/8
	Piston rod-Ø [mm]	4	6	6	8	10
	Cylinder outer thread	M12x1,25	M16x1,5	M16x1,5	M22x1,5	M22x1,5
	Stroke 10	0822330201	0822331201	0822332201	0822333201	0822334201
	25	0822330202	0822331202	0822332202	0822333202	0822334202
	50	0822330203	0822331203	0822332203	0822333203	0822334203
	80	0822330204	0822331204	0822332204	0822333204	0822334204
	100	0822330205	0822331205	0822332205	0822333205	0822334205
	125	0822330215	0822331206	0822332206	0822333206	0822334206
	160	0822330209	0822331207	0822332207	0822333207	0822334207
	200	0822330235	0822331218	0822332208	0822333208	0822334208
	250	0822330219	0822331219	0822332209	0822333209	0822334209
	320	-	0822331223	0822332210	0822333210	0822334210
	400	-	0822331217	0822332219	0822333214	0822334211
500	-	0822331233	0822332220	0822333220	0822334212	

Piston rod cylinder ▶ Mini cylinders
**ISO 6432, Series MNI
Accessories**
Holding unit, HU1

▶ Ø20 - 25 mm ▶ hold: spring force, release: compressed air



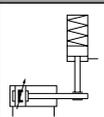
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Function	Hold with clamping jaws
Release pressure min./max.	4 bar / 8 bar
Ambient temperature min./max.	-10 °C / +60 °C
Medium temperature min./max.	-10 °C / +60 °C
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Static holding force	See table below

Materials:	
Housing	Aluminum, black anodized

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The Oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Warning: The holding unit may not be used for the following applications:
 - for dynamic holding
 - in or as safety equipment
- Holding unit may only be unlocked when turned off.
- Make sure that the load direction does not change during a holding interval. A change in the direction of force, as well as external forces such as impacts, strong vibrations or torsional forces, will briefly release the piston rod and may destroy the HU 1 holding unit.
- When clamped, there must be no residual pressure on the holding unit (0 bar).
- Note: The minimum control pressure is \geq the working pressure of the cylinder!

	Piston Ø	Suitable piston rod diameter	Piston rod extension	Compressed air connection	Static holding force	Weight	Part No.
	[mm]	[mm]	[mm]		[N]	[kg]	
	20	8	54	M5	300	0,11	0821401163
	25	10	51		400		0821401164

Holding force at 0 bar

Piston rod cylinder ▶ Mini cylinders
**ISO 6432, Series MNI
Accessories**
Cylinder mountings

Piston Ø	MR3, Nut for Cylinder mounting	MS3, Foot mounting	MF8, Flange mounting	AB3, Clevis mounting
				
10	1823300024	1821332029	1821036012	1827001447
12	2915A51204	1821332028	1821036011	1827001446
16	2915A51204	1821332028	1821036011	1827001446
20	2915051207	1821332027	1821036010	1827001445
25	2915051207	1821332027	1821036010	1827001445

Piston rod mountings

Piston Ø	MR9, Nut for Piston rod	PM5, Flexible spherical coupling	AP2, Rod clevis Galvanized steel	AP6, Ball eye rod end
				
10	1823300032	1826409008	1822122028	1822124000
12	1823300033	1826409000	1822122009	1822124001
16	1823300033	1826409000	1822122009	1822124001
20	1823300034	1826409001	1822122010	1822124002
25	1823300020	1826409002	1822122024	1822124003

Piston rod cylinder ▶ Mini cylinders
ISO 6432, Series MNI
Accessories
Sensor, Series ST6
▶ 6 mm Nut ▶ with Cable ▶ tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	0830100629
			5	0830100630
		electronic PNP	3	0830100631
			5	0830100632

Sensor, Series ST6
▶ 6 mm Nut ▶ with Cable ▶ Plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100434
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,5	R412004762 0830100437

Sensor, Series ST6
▶ 6 mm Nut ▶ with Cable ▶ Plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100488
			0,3	0830100489
		electronic PNP	0,3	

Sensor, Series ST6
▶ 6 mm Nut ▶ with Cable ▶ Plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100432
			0,3	0830100433
		electronic PNP	3	R412010753

Sensor mountings	For Series ST6	
∅		
10	1827020296	-
12	1827020297	-
16	R412018490	R412018490
20	R412018491	R412018491
25	R412018492	R412018492
32	-	-

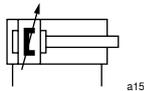
Piston rod cylinder ▶ Mini cylinders

Series CSL-RD, version: ISO model

▶ Ø 16 - 25 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically, adjustable ▶ with integrated rear eye ▶ Piston rod: external thread ▶ ATEX optional



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Standards	ISO 6432
Compressed air connection	Internal thread
ATEX	2 G/D
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6,3 bar

Piston Ø		[mm]	16	20	25		
Retracting piston force		[N]	109	166	260		
Extracting piston force		[N]	127	198	309		
Cushioning length		[mm]	11,5	13	14		
Cushioning energy		[J]	1	1,7	2,7		
Impact energy		[J]	0,14	0,23	0,35		
Weight	0 mm Stroke	[kg]	0,034	0,063	0,082		
	+10 mm Stroke	[kg]	0,0024	0,0046	0,0055		
Stroke max.		[mm]	800	1100	1300		

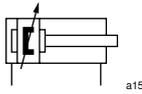
	Piston Ø	16	20	25		
	Piston rod thread	M6	M8	M10x1,25		
	Ports	M5	G 1/8	G 1/8		
	Piston rod-Ø	6	8	10		
	Stroke 25	R412020409	R412020453	R412020497		
	50	R412020410	R412020454	R412020498		
	80	R412020411	R412020455	R412020499		
	100	R412020412	R412020456	R412020500		
	125	R412020413	R412020457	R412020501		
	160	R412020414	R412020458	R412020502		
	200	R412020415	R412020459	R412020503		
	250	R412020416	R412020460	R412020504		
	320	R412020417	R412020461	R412020505		
	400	R412020418	R412020462	R412020506		
	500	R412020419	R412020463	R412020507		

Piston rod cylinder ▶ Mini cylinders
Series CSL-RD, version: hygienic design

▶ Ø 16 - 25 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically, adjustable ▶ with integrated rear eye ▶ Piston rod: external thread ▶ ATEX optional



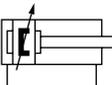
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Standards	ISO 6432
Compressed air connection	Internal thread
ATEX	2 G/D
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6,3 bar

Piston Ø		[mm]	16	20	25		
Retracting piston force		[N]	109	166	260		
Extracting piston force		[N]	127	198	309		
Cushioning length		[mm]	11,5	13	14		
Cushioning energy		[J]	1	1,7	2,7		
Impact energy		[J]	0,14	0,23	0,35		
Weight	0 mm Stroke	[kg]	0,034	0,063	0,082		
	+10 mm Stroke	[kg]	0,0024	0,0046	0,0055		
Stroke max.		[mm]	800	1100	1300		

	Piston Ø	16	20	25		
	Piston rod thread	M6	M8	M10x1,25		
	Ports	M5	G 1/8	G 1/8		
	Piston rod-Ø	6	8	10		
	Stroke 25	R412020431	R412020475	R412020519		
	50	R412020432	R412020476	R412020520		
	80	R412020433	R412020477	R412020521		
	100	R412020434	R412020478	R412020522		
	125	R412020435	R412020479	R412020523		
	160	R412020436	R412020480	R412020524		
	200	R412020437	R412020481	R412020525		
	250	R412020438	R412020482	R412020526		
	320	R412020439	R412020483	R412020527		
	400	R412020440	R412020484	R412020528		
	500	R412020441	R412020485	R412020529		

Piston rod cylinder ▶ Mini cylinders

Series CSL-RD
Accessories

Cylinder mountings

Piston Ø	MS3, Foot mounting	MF8, Flange mounting	AB3, Clevis mounting
			
16	3322216000	3322016000	3323416000
20	3322220000	3322020000	3323420000
25	3322220000	3322020000	3323420000

Piston rod mountings

Piston Ø	MR9, Nut for Piston rod	AP2, Rod clevis, Stainless Steel	AP6, Ball eye rod end
			
16	8103190644	3330516000	8958209012
20	8103190164	3330520000	8958209022
25	8103190464	3590502000	8958209032

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ open cable ends, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412019488
			5	R412019489
		electronic PNP	3	R412019680
			5	R412019681

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ Plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019682
				electronic PNP

Piston rod cylinder ▶ Mini cylinders

Series CSL-RD

Accessories

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412007815
		Reed	3	0830100629
			5	0830100630
		electronic PNP	3	0830100631
			5	0830100632

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin, with knurled screw

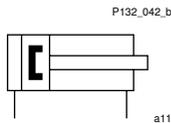
		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412004761
			0,3	0830100434
			0,3	R412007840
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,3	R412004762
			0,3	0830100437
			0,5	0830100437

Sensor mounting	For Series ST6, ST4
∅	
16	R412021791
20	R412021792
25	R412021793

Piston rod cylinder ▶ Mini cylinders

Mini cylinder, Series ICM

▶ Ø 12 - 32 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ corrosion-resistant ▶ with integrated rear eye ▶ Piston rod: external thread ▶ Suitable for use in food processing



Standards	ISO 6432
Compressed air connection	Internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20°C / +70°C
Medium temperature min./max.	-20°C / +70°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³
Pressure for determining piston forces	6,3 bar

Piston Ø	[mm]	12	16	20	25	32	
Retracting piston force	[N]	53	109	166	260	435	
Extracting piston force	[N]	71	127	198	309	506	
Weight	0 mm Stroke	[kg]	0,048	0,054	0,08	0,1	0,26
	+10 mm Stroke	[kg]	0,005	0,005	0,01	0,014	0,022
Stroke max.	[mm]	100	100	200	250	200	

Piston Ø Piston rod thread Ports	Stroke	12	16	20	25	32
		M6 M5	M6 M5	M8 G 1/8	M10x1,25 G 1/8	M10x1,25 G 1/8
	12	1331201000	1331601000	1332001000	1332501000	-
	15	-	R404062574	R402001231	R404050979	-
	20	-	-	-	R404054477	-
	25	1331202000	1331602000	1332002000	1332502000	1333202000
	30	-	-	R402001533	R404052834	R404050547
	35	-	R404053760	R404063867	-	R404050533
	40	-	-	R404051010	R402001019	-
	50	1331205000	1331605000	1332005000	1332505000	1333205000
	60	-	R404052973	R402001230	-	R404051858
	70	-	-	-	R404051389	R404051564
	80	1331208000	1331608000	1332008000	1332508000	1333208000
	100	1331210000	1331610000	1332010000	1332510000	1333210000
	125	-	-	1332012000	1332512000	1333212000
	160	-	R404063245	1332016000	1332516000	1333216000
	200	-	R404065638	R402001232	R402001235	1333220000
	250	-	-	R404051220	R402001236	R404051390
	300	-	-	R404053499	R404050518	-
320	-	-	R404008517	R404009055	-	
400	-	-	R404001788	-	R404009214	

Piston rod cylinder ▶ Mini cylinders
**Mini cylinder, Series ICM
Accessories**
Cylinder mountings

Piston Ø	MF8, Flange mounting	MS3, Foot mounting	AB3, Clevis mounting	MR3, Nut for cylinder mounting
				
12	3322016000	3322216000	3323416000	0413214505
16	3322016000	3322216000	3323416000	0413214505
20	3322020000	3322220000	3323420000	0413214602
25	3322020000	3322220000	3323420000	0413214602
32	-	3322232000	3323432000	0413214718

Piston rod mountings

Piston Ø	MR9, Nut for piston rod	AP2, Rod clevis Stainless, steel	AP2, Rod clevis, steel, galvanized	AP6, Ball eye rod end	PM5, Flexible spherical coupling
					
12	3330316000	3330516000	1822122009	8958209012	1826409000
16	3330316000	3330516000	1822122009	8958209012	1826409000
20	3330320000	3330520000	1822122010	8958209022	1826409001
25, 32	3590302000	3590502000	1822122024	8958209032	1826409002

Sensors
Sensor, Series ST6
▶ 6 mm groove ▶ with cable ▶ tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412007815
		Reed	3	0830100629
			5	0830100630
		electronic PNP	3	0830100631
			5	0830100632
			10	R412004576

Sensor, Series ST6
▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100434
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,3	R412004762
			0,5	0830100437
			0,5	0830100437

Piston rod cylinder ▶ Mini cylinders

Mini cylinder, Series ICM
Accessories

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100488
		electronic PNP	0,3	0830100489

Sensor, Series ST6

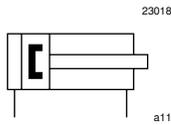
▶ 6 mm groove ▶ with cable ▶ plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100432
		electronic PNP	0,3	0830100433
			3	R412010753

Sensor mounting	For Series ST6		
∅			
12	1827020297	-	-
16	1827020298	-	R412018491
20	1827020299	-	R412018492
25	1827020300	-	R412018493
32	-	R412003576	-

Piston rod cylinder ▶ Roand cylinders
RPC Series, version: compact Type

- ▶ Ø 32 - 63 mm ▶ Ports: G 1/8 - G 3/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic, non-adjustable
▶ with integrated rear eye ▶ Piston rod: external thread



Compressed air connection

Internal thread

Working pressure min./max.

1 bar / 10 bar

Ambient temperature min./max.

-20°C / +80°C

Medium temperature min./max.

-20°C / +80°C

Medium

Compressed air

Max. particle size

50 µm

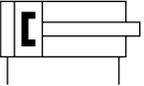
Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

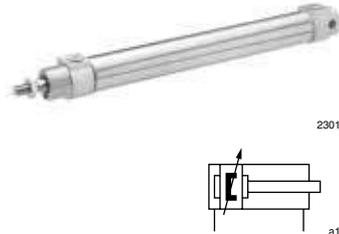
Piston Ø		[mm]	32	40	50	63
Retracting piston force		[N]	435	660	1035	1765
Extracting piston force		[N]	505	790	1235	1960
Impact energy		[J]	0,8	1,04	1,28	1,5
Weight	0 mm Stroke	[kg]	0,33	0,58	0,92	1,62
	+10 mm Stroke	[kg]	0,015	0,024	0,04	0,044
Stroke max.		[mm]	1200	1200	1200	1200

	Piston Ø Piston rod thread Ports Piston rod Ø	32	40	50	63
		M10x1,25 G 1/8 12	M12x1,25 G 1/4 16	M16x1,5 G 1/4 20	M16x1,5 G 3/8 20
	Stroke 25	R412020684	R412020695	R412020706	R412020717
	50	R412020685	R412020696	R412020707	R412020718
	80	R412020686	R412020697	R412020708	R412020719
	100	R412020687	R412020698	R412020709	R412020720
	125	R412020688	R412020699	R412020710	R412020721
	160	R412020689	R412020700	R412020711	R412020722
	200	R412020690	R412020701	R412020712	R412020723
	250	R412020691	R412020702	R412020713	R412020724
	320	R412020692	R412020703	R412020714	R412020725
	400	R412020693	R412020704	R412020715	R412020726
	500	R412020694	R412020705	R412020716	R412020727

Piston rod cylinder ▶ Roand cylinders

RPC Series, version: standard Type

▶ Ø 32 - 63 mm ▶ Ports: G 1/8 - G 3/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically, adjustable ▶ with integrated rear eye ▶ Piston rod: external thread



Compressed air connection

Internal thread

Working pressure min./max.

1 bar / 10 bar

Ambient temperature min./max.

-20 °C / +80 °C

Medium temperature min./max.

-20 °C / +80 °C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Piston Ø		[mm]	32	40	50	63
Retracting piston force		[N]	435	660	1035	1765
Extracting piston force		[N]	505	790	1235	1960
Cushioning length		[mm]	16,5	19	17	16,5
Cushioning energy		[J]	4,8	9	15	27
Weight	0 mm Stroke	[kg]	0,34	0,58	0,96	1,3
	+10 mm Stroke	[kg]	0,015	0,024	0,04	0,044
Stroke max.		[mm]	1200	1200	1200	1200

	Piston Ø	32	40	50	63
	Piston rod thread	M10x1,25	M12x1,25	M16x1,5	M16x1,5
	Ports	G 1/8	G 1/4	G 1/4	G 3/8
	Piston rod Ø	12	16	20	20
	Stroke 25	R412020728	R412020739	R412020750	R412020761
	50	R412020729	R412020740	R412020751	R412020762
	80	R412020730	R412020741	R412020752	R412020763
	100	R412020731	R412020742	R412020753	R412020764
	125	R412020732	R412020743	R412020754	R412020765
	160	R412020733	R412020744	R412020755	R412020766
	200	R412020734	R412020745	R412020756	R412020767
	250	R412020735	R412020746	R412020757	R412020768
	320	R412020736	R412020747	R412020758	R412020769
	400	R412020737	R412020748	R412020759	R412020770
500	R412020738	R412020749	R412020760	R412020771	

Piston rod cylinder ▶ Roand cylinders
Series RPC
Accessories
Cylinder mountings

Piston Ø	MS1, Foot mounting	AB3, clevis mounting	MP2, Trunnion mounting	Lock nut
				
32	5217000504	5217103402	R412019988	8915308704
40	5217010504	5217113402	R412019989	8915307604
50	5217020504	5217123402	R412019990	8915309004
63	5217030504	5217133402	R412019991	8915309004

Piston rod mountings

Piston Ø	MR9, Nut for piston rod	AP2, Rod clevis steel, galvanized	AP6, Ball eye rod end	PM5, Flexible spherical coupling	PM7, Flexible plate coupling
					
32	1823300020	1822122024	1822124003	1826409002	1827001629
40	1823300021	1822122025	1822124004	1826409003	1827001630
50, 63	1823300030	1822122005	1822124005	1826409004	1827001631

Piston rod cylinder ▶ Roand cylinders

Series RPC

Accessories

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412007815
			5	0830100629 0830100630
		electronic PNP	3	0830100631
			5	0830100632
			5	0830100634

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412004761
			0,3	0830100434
			0,3	R412007840
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,3	R412004762
			0,5	0830100437

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ Plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100488
				electronic PNP

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ Plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.		
			[m]			
		Reed	0,3	0830100432		
				electronic PNP	0,3	0830100433
					3	R412010753

Sensor mountings	For seriesST6
∅	
32	R412003576
40	R412003577
50	R412003578
63	R412003579

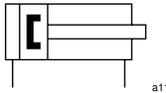
Piston rod cylinder ▶ Short-stroke and Compact cylinders

Compact cylinders, ISO 21287, Series CCI

▶ Ø 16 - 100 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ Piston rod: Internal thread ▶ ATEX optional



00119669



Standards	ISO 21287
Compressed air connection	Internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6 bar

Piston Ø	[mm]	16	20	25	32	40
Retracting piston force	[N]	91	137	216	364	560
Extracting piston force	[N]	106	164	259	422	665
Impact energy	[J]	0,11	0,15	0,2	0,4	0,52
Weight	0 mm Stroke	0,059	0,099	0,123	0,233	0,303
	+10 mm Stroke	0,016	0,023	0,026	0,042	0,052
Stroke max.	[mm]	300	300	300	300	300

Piston Ø	[mm]	50	63	80	100
Retracting piston force	[N]	871	1478	2397	3886
Extracting piston force	[N]	1035	1647	2656	4145
Impact energy	[J]	0,64	0,75	0,75	1
Weight	0 mm Stroke	0,448	0,689	1,114	2,153
	+10 mm Stroke	0,07	0,087	0,116	0,168
Stroke max.	[mm]	300	300	500	500

Piston rod cylinder ▶ Short-stroke and Compact cylinders
Compact cylinders, ISO 21287, Series CCI

▶ Ø 16 - 100 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ Piston rod: Internal thread ▶ ATEX optional

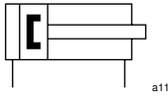
	Piston Ø Piston rod thread Ports Piston rod-Ø	16 M4 M5 8	20 M6 M5 10	25 M6 M5 10	32 M8 G 1/8 12	40 M8 G 1/8 12	
	Stroke 5	R422001002	R422001003	R422001004	R422001005	R422001006	
	10	R422001012	R422001013	R422001014	R422001015	R422001016	
	15	R422001022	R422001023	R422001024	R422001025	R422001026	
	20	R422001032	R422001033	R422001034	R422001035	R422001036	
	25	R422001042	R422001043	R422001044	R422001045	R422001046	
	30	R422001052	R422001053	R422001054	R422001055	R422001056	
	40	R422001062	R422001063	R422001064	R422001065	R422001066	
	50	R422001072	R422001073	R422001074	R422001075	R422001076	
	60	R422001082	R422001083	R422001084	R422001085	R422001086	
	80	-	-	-	R422001095	R422001096	
	100	-	-	-	R422001105	R422001106	
	125	-	-	-	R422001115	R422001116	
	150	-	-	-	R422001125	R422001126	
		Piston Ø Piston rod thread Ports Piston rod-Ø	50 M10 G 1/8 16	63 M10 G 1/8 16	80 M12 G 1/8 20	100 M12 G 1/8 25	
	Stroke 5		R422001007	R422001008	R422001009	R422001010	
	10		R422001017	R422001018	R422001019	R422001020	
	15		R422001027	R422001028	R422001029	R422001030	
20		R422001037	R422001038	R422001039	R422001040		
25		R422001047	R422001048	R422001049	R422001050		
30		R422001057	R422001058	R422001059	R422001060		
40		R422001067	R422001068	R422001069	R422001070		
50		R422001077	R422001078	R422001079	R422001080		
60		R422001087	R422001088	R422001089	R422001090		
80		R422001097	R422001098	R422001099	R422001100		
100		R422001107	R422001108	R422001109	R422001110		
125		R422001117	R422001118	R422001119	R422001120		
150		R422001127	R422001128	R422001129	R422001130		

Piston rod cylinder ▶ Short-stroke and Compact cylinders
Compact cylinders, ISO 21287, Series CCI

▶ Ø 16 - 100 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ Piston rod: external thread ▶ ATEX optional



00119670



Standards	ISO 21287
Compressed air connection	Internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6 bar

Piston Ø	[mm]	16	20	25	32	40
Retracting piston force	[N]	91	137	216	364	560
Extracting piston force	[N]	106	164	259	422	665
Impact energy	[J]	0,11	0,15	0,2	0,4	0,52
Weight	0 mm Stroke	0,064	0,125	0,149	0,256	0,326
	+10 mm Stroke	0,016	0,023	0,026	0,043	0,052
Stroke max.	[mm]	300	300	300	300	300

Piston Ø	[mm]	50	63	80	100
Retracting piston force	[N]	871	1478	2397	3886
Extracting piston force	[N]	1035	1647	2656	4145
Impact energy	[J]	0,64	0,75	0,75	1
Weight	0 mm Stroke	0,487	0,728	1,195	2,234
	+10 mm Stroke	0,07	0,087	0,116	0,168
Stroke max.	[mm]	300	300	500	500

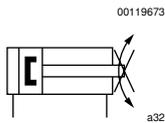
Piston rod cylinder ▶ Short-stroke and Compact cylinders
Compact cylinders, ISO 21287, Series CCI

▶ Ø 16 - 100 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with Magnetic piston ▶ Cushioning: elastic ▶ Piston rod: External thread ▶ ATEX optional

	Piston Ø Piston rod thread Ports Piston rod-Ø	16	20	25	32	40	
		M6x1 M5 8	M8x1,25 M5 10	M8x1,25 M5 10	M10x1,25 G 1/8 12	M10x1,25 G 1/8 12	
	Stroke 5	R422001132	R422001133	R422001134	R422001135	R422001136	
	10	R422001142	R422001143	R422001144	R422001145	R422001146	
	15	R422001152	R422001153	R422001154	R422001155	R422001156	
	20	R422001162	R422001163	R422001164	R422001165	R422001166	
	25	R422001172	R422001173	R422001174	R422001175	R422001176	
	30	R422001182	R422001183	R422001184	R422001185	R422001186	
	40	R422001192	R422001193	R422001194	R422001195	R422001196	
	50	R422001202	R422001203	R422001204	R422001205	R422001206	
	60	R422001212	R422001213	R422001214	R422001215	R422001216	
	80	-	-	-	R422001225	R422001226	
	100	-	-	-	R422001235	R422001236	
	125	-	-	-	R422001245	R422001246	
	150	-	-	-	R422001255	R422001256	
		Piston Ø Piston rod thread Ports Piston rod-Ø	50 M12x1,25 G 1/8 16	63 M12x1,25 G 1/8 16	80 M16x1,5 G 1/8 20	100 M16x1,5 G 1/8 25	
	Stroke 5	R422001137	R422001138	R422001139	R422001140		
	10	R422001147	R422001148	R422001149	R422001150		
	15	R422001157	R422001158	R422001159	R422001160		
20	R422001167	R422001168	R422001169	R422001170			
25	R422001177	R422001178	R422001179	R422001180			
30	R422001187	R422001188	R422001189	R422001190			
40	R422001197	R422001198	R422001199	R422001200			
50	R422001207	R422001208	R422001209	R422001210			
60	R422001217	R422001218	R422001219	R422001220			
80	R422001227	R422001228	R422001229	R422001230			
100	R422001237	R422001238	R422001239	R422001240			
125	R422001247	R422001248	R422001249	R422001250			
150	R422001257	R422001258	R422001259	R422001260			

Piston rod cylinder ▶ Short-stroke and Compact cylinders
Compact cylinders, ISO 21287, Series CCI

▶ Ø 16 - 100 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ Piston rod: non-rotating, with front plate, internal thread



Standards	ISO 21287
Compressed air connection	Internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6 bar

Piston Ø	[mm]	16	20	25	32	40
Retracting piston force	[N]	91	137	216	364	560
Extracting piston force	[N]	106	164	259	422	665
Impact energy	[J]	0,11	0,15	0,2	0,4	0,52
Weight	0 mm Stroke	0,071	0,119	0,155	0,303	0,383
	+10 mm Stroke	0,019	0,026	0,03	0,05	0,06
Stroke max.	[mm]	300	300	300	300	300

Piston Ø	[mm]	50	63	80	100
Retracting piston force	[N]	871	1478	2397	3886
Extracting piston force	[N]	1035	1647	2656	4145
Impact energy	[J]	0,64	0,75	0,75	1
Weight	0 mm Stroke	0,626	0,907	1,462	2,641
	+10 mm Stroke	0,09	0,107	0,136	0,188
Stroke max.	[mm]	300	300	500	500

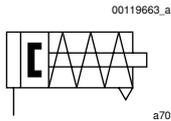
Piston rod cylinder ▶ Short-stroke and Compact cylinders
Compact cylinders, ISO 21287, Series CCI

▶ Ø 16 - 100 mm ▶ Ports: M5 - G 1/8 ▶ double-acting ▶ with Magnetic piston ▶ Cushioning: elastic ▶ Piston rod: non-rotating, with Front plate, Internal thread

	Piston Ø Piston rod thread Ports Piston rod-Ø	16 M4 M5 8	20 M6 M5 10	25 M6 M5 10	32 M8 G 1/8 12	40 M8 G 1/8 12	
	Stroke 5	R422001262	R422001263	R422001264	R422001265	R422001266	
	10	R422001272	R422001273	R422001274	R422001275	R422001276	
	15	R422001282	R422001283	R422001284	R422001285	R422001286	
	20	R422001292	R422001293	R422001294	R422001295	R422001296	
	25	R422001302	R422001303	R422001304	R422001305	R422001306	
	30	R422001312	R422001313	R422001314	R422001315	R422001316	
	40	R422001322	R422001323	R422001324	R422001325	R422001326	
	50	R422001332	R422001333	R422001334	R422001335	R422001336	
	60	R422001342	R422001343	R422001344	R422001345	R422001346	
	80	-	-	-	R422001355	R422001356	
	100	-	-	-	R422001365	R422001366	
	125	-	-	-	R422001375	R422001376	
	150	-	-	-	R422001385	R422001386	
		Piston Ø Piston rod thread Ports Piston rod-Ø	50 M10 G 1/8 16	63 M10 G 1/8 16	80 M12 G 1/8 20	100 M12 G 1/8 25	
		Stroke 5	R422001267	R422001268	R422001269	R422001270	
		10	R422001277	R422001278	R422001279	R422001280	
		15	R422001287	R422001288	R422001289	R422001290	
		20	R422001297	R422001298	R422001299	R422001300	
		25	R422001307	R422001308	R422001309	R422001310	
		30	R422001317	R422001318	R422001319	R422001320	
	40	R422001327	R422001328	R422001329	R422001330		
	50	R422001337	R422001338	R422001339	R422001340		
	60	R422001347	R422001348	R422001349	R422001350		
	80	R422001357	R422001358	R422001359	R422001360		
	100	R422001367	R422001368	R422001369	R422001370		
	125	R422001377	R422001378	R422001379	R422001380		
	150	R422001387	R422001388	R422001389	R422001390		

Piston rod cylinder ▶ Short-stroke and Compact cylinders
Compact cylinders, ISO 21287, Series CCI

▶ Ø 16 - 100 mm ▶ Ports: M5 - G 1/8 ▶ single-acting, retracted without pressure ▶ with Magnetic piston
▶ Cushioning: elastic ▶ Piston rod: Internal thread



Standards	ISO 21287
Compressed air connection	Internal thread
Working pressure min./max.	1,5 bar / 10 bar
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6 bar

Piston Ø	[mm]	16	20	25	32	40
Retracting piston force	[N]	12	13	25	35	43
Extracting piston force	[N]	94	151	234	387	622
Impact energy	[J]	0,11	0,15	0,2	0,4	0,52
Weight	0 mm Stroke	0,061	0,101	0,126	0,237	0,309
	+10 mm Stroke	0,016	0,023	0,026	0,043	0,052
Stroke max.	[mm]	25	25	25	25	25

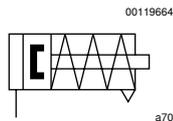
Piston Ø	[mm]	50	63	80	100
Retracting piston force	[N]	82	82	105	215
Extracting piston force	[N]	953	1565	2551	3930
Impact energy	[J]	0,64	0,75	0,75	1
Weight	0 mm Stroke	0,462	0,703	1,142	2,199
	+10 mm Stroke	0,07	0,087	0,116	0,168
Stroke max.	[mm]	25	25	25	25

	Piston Ø	16	20	25	32	40
	Piston rod thread	M4	M6	M6	M8	M8
	Ports	M5	M5	M5	G 1/8	G 1/8
	Piston rod-Ø	8	10	10	12	12
	Stroke 5	R422001392	R422001393	R422001394	R422001395	R422001396
	10	R422001402	R422001403	R422001404	R422001405	R422001406
	15	R422001412	R422001413	R422001414	R422001415	R422001416
	20	R422001422	R422001423	R422001424	R422001425	R422001426
	25	R422001432	R422001433	R422001434	R422001435	R422001436
	Piston Ø	50	63	80	100	
	Piston rod thread	M10	M10	M12	M12	
	Ports	G 1/8	G 1/8	G 1/8	G 1/8	
	Piston rod-Ø	16	16	20	25	
	Stroke 5	R422001397	R422001398	R422001399	R422001400	
	10	R422001407	R422001408	R422001409	R422001410	
15	R422001417	R422001418	R422001419	R422001420		
20	R422001427	R422001428	R422001429	R422001430		
25	R422001437	R422001438	R422001439	R422001440		

Piston rod cylinder ▶ Short-stroke and Compact cylinders

Compact cylinders, ISO 21287, Series CCI

- ▶ Ø 16 - 100 mm ▶ Ports: M5 - G 1/8 ▶ single-acting, retracted without pressure ▶ with Magnetic piston
- ▶ Cushioning: elastic ▶ Piston rod: External thread



Standards	ISO 21287
Compressed air connection	Internal thread
Working pressure min./max.	1,5 bar / 10 bar
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6 bar

Piston Ø	[mm]	16	20	25	32	40	
Retracting piston force	[N]	12	13	25	35	43	
Extracting piston force	[N]	94	151	234	387	622	
Impact energy	[J]	0,11	0,15	0,2	0,4	0,52	
Weight	0 mm Stroke	[kg]	0,066	0,127	0,152	0,26	0,332
	+10 mm Stroke	[kg]	0,016	0,023	0,026	0,043	0,052
Stroke max.	[mm]	25	25	25	25	25	

Piston Ø	[mm]	50	63	80	100	
Retracting piston force	[N]	82	82	105	215	
Extracting piston force	[N]	953	1565	2551	3930	
Impact energy	[J]	0,64	0,75	0,75	1	
Weight	0 mm Stroke	[kg]	0,501	0,742	1,223	2,28
	+10 mm Stroke	[kg]	0,07	0,087	0,116	0,168
Stroke max.	[mm]	25	25	25	25	

	Piston Ø	16	20	25	32	40
	Piston rod thread	M6x1	M8x1,25	M8x1,25	M10x1,25	M10x1,25
	Ports	M5	M5	M5	G 1/8	G 1/8
	Piston rod-Ø	8	10	10	12	12
	Stroke 5	R422001442	R422001443	R422001444	R422001445	R422001446
	10	R422001452	R422001453	R422001454	R422001455	R422001456
	15	R422001462	R422001463	R422001464	R422001465	R422001466
	20	R422001472	R422001473	R422001474	R422001475	R422001476
	25	R422001482	R422001483	R422001484	R422001485	R422001486
	Piston Ø	50	63	80	100	
	Piston rod thread	M12x1,25	M12x1,25	M16x1,5	M16x1,5	
	Ports	G 1/8	G 1/8	G 1/8	G 1/8	
	Piston rod-Ø	16	16	20	25	
	Stroke 5	R422001447	R422001448	R422001449	R422001450	
	10	R422001457	R422001458	R422001459	R422001460	
	15	R422001467	R422001468	R422001469	R422001470	
	20	R422001477	R422001478	R422001479	R422001480	
	25	R422001487	R422001488	R422001489	R422001490	

Piston rod cylinder ▶ Short-stroke and Compact cylinders
**ISO 21287, Series CCI
Accessories**
Cylinder mountings

Piston Ø	AB7, Bearing block with fixed bearing and foot	AB6, Clevis mounting	CS7, angled, clinder mounting in accordance with VDMA	MP2, Clevis mounting	MP4, Rear eye for Clevis mounting MP2, AB3	MP9, Clevis mounting with rubber bushing	MP2, Clevis mounting for MP9
							
16	-	-	-	-	1825805368	-	-
20	-	-	-	-	1827002300	-	-
25	-	-	-	-	1827002301	-	3672902000
32	1825805275	1827001593	1827001784	1827001289	1827001283	3683203000	3682903590
40	1825805276	1827001594	1827001785	1827001290	1827001284	3683204000	3682904590
50	1825805277	1827001595	1827001786	1827001291	1827001285	3683205000	3682905590
63	1825805278	1827002024	1827001787	1827001500	1827020086	3683206000	3682906590
80	1825805279	1827001597	1827001788	1827001293	1827001287	3683208000	3682908590
100	1825805280	1827001598	1827001789	1827001294	1827001288	3683210000	3682910590

Piston Ø	AT4, bearing brackets MT4, MT5, MT6	MT5, MT6, Trunnion mounting, front or rear	Flange mounting MF1, MF2	MP6, Rear eye with ball joint and foot	JP1, intermediate flange for multi-position cylinder	AB3, Clevis mounting	Axle AA4	Centering sleeve
								
16	-	-	1821038241	-	-	1827001446	-	1827020278
20	1827001603	1825805360	1827002292	-	-	1827001445	-	1827020279
25	1827001603	1825805361	1827002293	-	-	1827001445	-	1827020280
32	1827001603	1827001609	1827001277	1827001619	1827020247	-	1823120020	-
40	1827001604	1827001610	1827001278	1827001620	1827020248	-	1823120021	-
50	1827001604	1827001611	1827001279	1827001621	1827020249	-	1823120022	-
63	1827001605	1827002046	1827001499	1827020087	1827020250	--	1823120023	-
80	1827001605	1827001613	1827001281	1827001623	1827020251	-	1823120024	-
100	1827001606	1827001614	1827001282	1827001624	1827020252	-	1823120025	-

Piston rod cylinder ▶ Short-stroke and Compact cylinders
**ISO 21287, Series CCI
Accessories**

Piston Ø	Groove lock profile	Mounting kit	MS1, Foot mounting	MS9, Foot mounting, long
				
16-100	1821321009	1827020275	1821332053	-
20			1827002284	-
25			1827002285	-
32			1827001271	1827001018
40			1827001272	1827001019
50			1827001273	1827001020
63			1827001498	1827020085
80			1827001275	1827001022
100			1827001276	1827001023

Piston rod mountings

Piston Ø	PM5, Flexible spherical coupling	PM7, Flexible plate coupling	AP2, Rod clevis Steel, galvanized	AP6, Ball eye rod end	MR9, Nut for Piston rod	Male threaded rod
						
16	1826409000	-	1822122009	1822124001	1823300033	2701432000
20	1826409001	-	1822122010	1822124002	1823300034	2701432000
25	1826409001	-	1822122010	1822124002	1823300034	2701450000
32	1826409002	1827001629	1822122024	1822124003	1823300020	2701463000
40	1826409002	1827001629	1822122024	1822124003	1823300020	2701463000
50	1826409003	1827001630	1822122025	1822124004	8103190344	-
63	1826409003	1827001630	1822122025	1822124004	8103190344	-
80	1826409004	1827001631	1822122005	1822124005	1823300030	-
100	1826409004	1827001631	1822122005	1822124005	1823300030	-

Piston rod cylinder ▶ Short-stroke and Compact cylinders
ISO 21287, Series CCI
Accessories
Sensors, Series SM6
▶ 6 mm Nut ▶ with Cable ▶ Tin-plated, 4-pin ▶ with distance measuring sensor, Measurement range 32 - 256 mm

Cable length (m)	with Cable, Tin-plated	with Cable, Plug
	4-pin	M8x1, 4-pin, with knurled screw
		
0,3	-	R412010142
	-	R412010144
	-	R412010263
	-	R412010265
	-	R412010410
	-	R412010412
	-	R412010414
	-	R412010416
2	R412010141	-
	R412010143	-
	R412010262	-
	R412010264	-
	R412010411	-
	R412010413	-
	R412010415	-
	R412010417	-

Piston rod cylinder ▶ Short-stroke and Compact cylinders

ISO 21287, Series CCI
Accessories

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	0830100629
			5	0830100630
		electronic PNP	3	0830100631
			5	0830100632

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100434
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,5	R412004762 0830100437

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100488
		electronic PNP	0,3	0830100489

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Plug, M12, 3-pin, with knurled screw

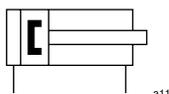
		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100432
			0,3	0830100433
		electronic PNP	3	R412010753

Piston rod cylinder ▶ Short-stroke and compact cylinders
Short-stroke cylinders, ISO 15524, Series SSI

▶ Ø 12 - 100 mm ▶ Ports: M5 - G 3/8 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread



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Standards	ISO 15524
Compressed air connection	Internal thread
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6,3 bar

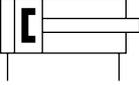
Piston-Ø	[mm]	12	16	20	25	32
Retracting piston force	[N]	53	95	148	238	380
Extracting piston force	[N]	71	127	198	309	507
Impact energy	[J]	0,03	0,06	0,08	0,1	0,16
Weight	0 mm Stroke	0,04	0,064	0,083	0,099	0,148
	+10 mm Stroke	0,012	0,017	0,021	0,027	0,038
Stroke max.	[mm]	75	100	150	150	150
Working pressure min./max.	[bar]	1 - 10	1 - 10	1 - 10	1 - 10	0,6 - 10
Material, front cover		Brass	Brass	Brass	Aluminum	Aluminum
Material Scraper		Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane
Material Seals		Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane

Piston-Ø	[mm]	40	50	63	80	100
Retracting piston force	[N]	665	1039	1766	2857	4441
Extracting piston force	[N]	792	1237	1964	3167	4948
Impact energy	[J]	0,24	0,32	0,38	0,43	0,5
Weight	0 mm Stroke	0,245	0,38	0,598	1,093	1,888
	+10 mm Stroke	0,044	0,067	0,079	0,122	0,168
Stroke max.	[mm]	150	150	150	150	150
Working pressure min./max.	[bar]	0,6 - 10	0,6 - 10	0,6 - 10	0,6 - 10	0,6 - 10
Material, front cover		Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Material Scraper		Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Material Seals		Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane

Piston rod cylinder ▶ Short-stroke and compact cylinders

Short-stroke cylinder, ISO 15524, Series SSI

▶ Ø 12 - 100 mm ▶ Ports: M5 - G 3/8 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread

	Piston-Ø Piston rod thread Ports Piston rod-Ø	12 M3 M5 6	16 M4 M5 8	20 M5 M5 10	25 M6 M5 12	32 M8 G 1/8 16
	Stroke 5	R412019800	R412019808	R412019816	R412019824	R412019832
	10	R412019801	R412019809	R412019817	R412019825	R412019833
	15	R412019802	R412019810	R412019818	R412019826	R412019834
	20	R412019803	R412019811	R412019819	R412019827	R412019835
	25	R412019804	R412019812	R412019820	R412019828	R412019836
	30	R412019805	R412019813	R412019821	R412019829	R412019837
	40	R412019806	R412019814	R412019822	R412019830	R412019838
	50	R412019807	R412019815	R412019823	R412019831	R412019839
	80	-	-	-	-	R412019840
	100	-	-	-	-	R412019841
	Piston-Ø Piston rod thread Ports Piston rod-Ø	40 M8 G 1/8 16	50 M10 G 1/4 20	63 M10 G 1/4 20	80 M16 G 3/8 25	100 M20 G 3/8 32
	Stroke 5	R412019842	R412019852	R412019862	R412019872	R412019882
	10	R412019843	R412019853	R412019863	R412019873	R412019883
	15	R412019844	R412019854	R412019864	R412019874	R412019884
	20	R412019845	R412019855	R412019865	R412019875	R412019885
	25	R412019846	R412019856	R412019866	R412019876	R412019886
	30	R412019847	R412019857	R412019867	R412019877	R412019887
	40	R412019848	R412019858	R412019868	R412019878	R412019888
	50	R412019849	R412019859	R412019869	R412019879	R412019889
	80	R412019850	R412019860	R412019870	R412019880	R412019890
100	R412019851	R412019861	R412019871	R412019881	R412019891	

Piston rod cylinder ▶ Short-stroke and compact cylinders
Short-stroke cylinder, ISO 15524, Series SSI
▶ Ø 12 - 100 mm ▶ Ports: M5 - G 3/8 ▶ double-acting ▶ cushioning: elastic ▶ Piston rod: Internal thread

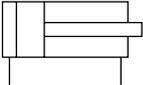

Standards	ISO 15524
Compressed air connection	Internal thread
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6,3 bar

Piston-Ø	[mm]	12	16	20	25	32
Retracting piston force	[N]	53	95	148	238	380
Extracting piston force	[N]	71	127	198	309	507
Impact energy	[J]	0,03	0,06	0,08	0,1	0,16
Weight	0 mm Stroke	0,023	0,039	0,052	0,071	0,11
	+10 mm Stroke	0,012	0,017	0,02	0,027	0,038
Stroke max.	[mm]	75	100	150	150	150
Working pressure min./max.	[bar]	1 - 10	1 - 10	1 - 10	1 - 10	0,6 - 10
Material, front cover		Brass	Brass	Brass	Aluminum	Aluminum
Material Scraper		Nitrile butadiene rubber				
Material Seals		Nitrile butadiene rubber				

Piston-Ø	[mm]	40	50	63	80	100
Retracting piston force	[N]	665	1039	1766	2857	4441
Extracting piston force	[N]	792	1237	1964	3167	4948
Impact energy	[J]	0,24	0,32	0,38	0,43	0,5
Weight	0 mm Stroke	0,193	0,312	0,523	0,97	1,826
	+10 mm Stroke	0,044	0,067	0,079	0,122	0,168
Stroke max.	[mm]	150	150	150	150	150
Working pressure min./max.	[bar]	0,6 - 10	0,6 - 10	0,6 - 10	0,6 - 10	0,6 - 10
Material, front cover		Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Material Scraper		Nitrile butadiene rubber	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Material Seals		Nitrile butadiene rubber				

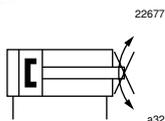
Piston rod cylinder ▶ Short-stroke and compact cylinders
Short-stroke cylinder, ISO 15524, Series SSI

▶ Ø 12 - 100 mm ▶ Ports: M5 - G 3/8 ▶ double-acting ▶ Cushioning: elastic ▶ Piston rod: Internal thread

	Piston-Ø Piston rod thread Ports Piston rod-Ø	12 M3 M5 6	16 M4 M5 8	20 M5 M5 10	25 M6 M5 12	32 M8 G 1/8 16
	Stroke 5	R480637830	R480637835	R480637841	R480637849	R480637857
	10	R480637831	R480637836	R480637842	R480637850	R480637858
	15	R480637832	R480637837	R480637843	R480637851	R480637859
	20	R480637833	R480637838	R480637844	R480637852	R480637860
	25	R480637834	R480637839	R480637845	R480637853	R480637861
	30	-	R480637840	R480637846	R480637854	R480637862
	40	-	-	R480637847	R480637855	R480637863
	50	-	-	R480637848	R480637856	R480637864
	80	-	-	-	-	R480644580
	100	-	-	-	-	R480644582
	Piston-Ø Piston rod thread Ports Piston rod-Ø	40 M8 G 1/8 16	50 M10 G 1/4 20	63 M10 G 1/4 20	80 M16 G 3/8 25	100 M20 G 3/8 32
	Stroke 5	R480637865	R480637873	R480637883	R480637893	R480637903
	10	R480637866	R480637874	R480637884	R480637894	R480637904
	15	R480637867	R480637875	R480637885	R480637895	R480637905
	20	R480637868	R480637876	R480637886	R480637896	R480637906
	25	R480637869	R480637877	R480637887	R480637897	R480637907
	30	R480637870	R480637878	R480637888	R480637898	R480637908
	40	R480637871	R480637879	R480637889	R480637899	R480637909
	50	R480637872	R480637880	R480637890	R480637900	R480637910
	80	R480641942	R480637881	R480637891	R480637901	R480637911
100	R480644583	R480637882	R480637892	R480637902	R480637912	

Piston rod cylinder ▶ Short-stroke and compact cylinders
Short-stroke cylinder, ISO 15524, Series SSI

▶ Ø 20 - 63 mm ▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: non-rotating, with front plate



Standards	ISO 15524
Compressed air connection	Internal thread
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6,3 bar

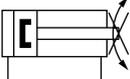
Piston-Ø		[mm]	20	25	32	40	50
Retracting piston force		[N]	148	238	380	665	1039
Extracting piston force		[N]	198	309	507	792	1237
Impact energy		[J]	0,08	0,1	0,16	0,24	0,32
Weight	0 mm Stroke	[kg]	0,101	0,14	0,216	0,334	0,547
	+10 mm Stroke	[kg]	0,021	0,028	0,039	0,045	0,07
Stroke max.		[mm]	150	150	150	150	150
Working pressure min./max.		[bar]	1 - 10	1 - 10	0,6 - 10	0,6 - 10	0,6 - 10
Material, front cover			Brass	Aluminum	Aluminum	Aluminum	Aluminum
Material Scraper			Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane	Polyurethane
Material Seals			Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane	Polyurethane	Polyurethane

Piston-Ø		[mm]	63				
Retracting piston force		[N]	1766				
Extracting piston force		[N]	1964				
Impact energy		[J]	0,38				
Weight	0 mm Stroke	[kg]	0,842				
	+10 mm Stroke	[kg]	0,083				
Stroke max.		[mm]	150				
Working pressure min./max.		[bar]	0,6 - 10				
Material, front cover			Aluminum				
Material Scraper			Polyurethane				
Material Seals			Polyurethane				

Piston rod cylinder ▶ Short-stroke and compact cylinders

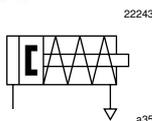
Short-stroke cylinder, ISO 15524, Series SSI

▶ Ø 20 - 63 mm ▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: non-rotating, with front plate

	Piston-Ø Ports Piston rod-Ø	20 M5 10	25 M5 12	32 G 1/8 16	40 G 1/8 16	50 G 1/4 20	
	Stroke 5	R480637940	R480637948	R480637956	R480637964	R480637972	
	10	R480637941	R480637949	R480637957	R480637965	R480637973	
	15	R480637942	R480637950	R480637958	R480637966	R480637974	
	20	R480637943	R480637951	R480637959	R480637967	R480637975	
	25	R480637944	R480637952	R480637960	R480637968	R480637976	
	30	R480637945	R480637953	R480637961	R480637969	R480637977	
	40	R480637946	R480637954	R480637962	R480637970	R480637978	
	50	R480637947	R480637955	R480637963	R480637971	R480637979	
	80	-	-	R480644584	R480644585	R480637980	
	100	-	-	R480641813	R480644586	R480637981	
		Piston-Ø Ports Piston rod-Ø	63 G 1/4 20				
	Stroke 5		R480637982				
	10		R480637983				
	15		R480637984				
	20		R480637985				
	25		R480637986				
	30		R480637987				
	40		R480637988				
	50		R480637989				
80		R480637990					
100		R480637991					

Piston rod cylinder ▶ Short-stroke and compact cylinders
Short-stroke cylinder, ISO 15524, Series SSI

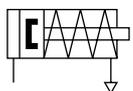
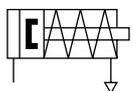
- ▶ Ø 12 - 63 mm ▶ Ports: M5 - G 1/4 ▶ single-acting, retracted without pressure ▶ with magnetic piston
 ▶ Cushioning: elastic ▶ Piston rod: Internal thread



Standards	ISO 15524
Compressed air connection	Internal thread
Ambient temperature min./max.	-20 °C / +80 °C
Medium temperature min./max.	-20 °C / +80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³
Pressure for determining piston forces	6,3 bar

Piston-Ø	[mm]	12	16	20	25	32
Extracting piston force	[N]	71	127	198	309	507
Impact energy	[J]	0,02	0,03	0,04	0,05	0,16
Weight	0 mm Stroke	0,039	0,061	0,077	0,098	0,171
	+10 mm Stroke	0,012	0,017	0,02	0,027	0,038
Stroke max.	[mm]	10	10	25	25	25
Working pressure min./max.	[bar]	1,7 - 10	1,5 - 10	1,5 - 10	1,5 - 10	1,3 - 10
Material, front cover		Brass	Aluminum	Aluminum	Aluminum	Aluminum
Material Seals		Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Nitrile butadiene rubber	Polyurethane

Piston-Ø	[mm]	40	50	63		
Extracting piston force	[N]	792	1237	1964		
Impact energy	[J]	0,24	0,32	0,38		
Weight	0 mm Stroke	0,236	0,385	0,606		
	+10 mm Stroke	0,044	0,067	0,079		
Stroke max.	[mm]	25	25	25		
Working pressure min./max.	[bar]	1,3 - 10	1 - 10	1 - 10		
Material, front cover		Aluminum	Aluminum	Aluminum		
Material Seals		Polyurethane	Polyurethane	Polyurethane		

	Piston-Ø	12	16	20	25	32
	Piston rod thread	M3	M4	M5	M6	M8
	Ports	M5	M5	M5	M5	G 1/8
	Piston rod-Ø	6	8	10	12	16
	Stroke 5	R480637920	R480637922	R480637924	R480637927	R480637930
	10	R480637921	R480637923	R480637925	R480637928	R480637931
	25	-	-	R480637926	R480637929	R480637932
	Piston-Ø	40	50	63		
	Piston rod thread	M8	M10	M10		
	Ports	G 1/8	G 1/4	G 1/4		
	Piston rod-Ø	16	20	20		
	Stroke 5	R480637933	-	-		
	10	R480637934	R480637936	R480637938		
	25	R480637935	R480637937	R480637939		

Piston rod cylinder ▶ Short-stroke and compact cylinders

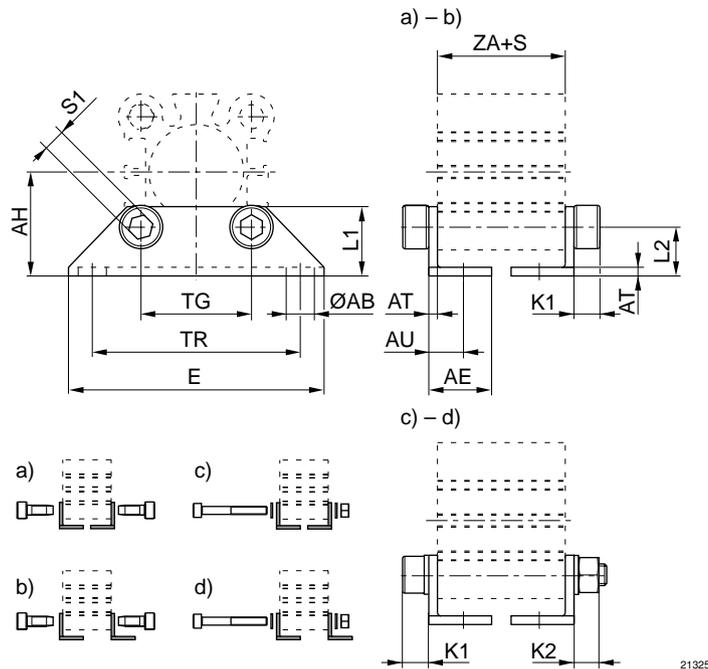
ISO 15524, Series SSI Accessories

MS9, Foot mounting

▶ Cylinder mounting for cylinder in accordance with ISO 15524



23321



21325

S = Stroke

Dimensions and cylinder-dependent installation options

Part No.	Piston-Ø	Installation options	ZA+S, min.	Stroke min. (with magnetic piston)	Stroke min. (without magnetic piston)	Length of through mounting screw	K1	K2	S1
R402006266	12	b)	21	2	4	-	4	-	3
		a) b)	22	2	5	-	4	-	3
R402006267	16	b)	21	2	4	-	4	-	3
		a) b)	22	2	4	-	4	-	3
R402006268	20	d)	23,5	2	4	45	6	5,7	4
		c) d)	26,5	2	7	45	6	5,7	4
		a) b)	29,5	2	10	-	6	-	5
R402006269	25	d)	26,5	2	4	45	6	5,7	4
		a) b)	29,5	2	7	-	6	-	5
R402006270	32	d)	27	2	4	50	6	5,7	4
		c) d)	29	2	6	50	6	5,7	4
		a) b)	35	2	12	-	6	-	5
R402006271	40	c) d)	33,5	2	4	50	6	5,7	4
		a) b)	35,5	2	6	-	6	-	5
R402006272	50	d)	34,5	2	4	60	7,6	6,8	5
		c) d)	39,5	2	9	60	7,6	6,8	5
		a) b)	45,5	5	15	-	8	-	6
R402006273	63	d)	40	2	4	80	9,6	8,4	6
		c) d)	43	3	7	80	9,6	8,4	6
		a) b)	53	7	17	-	10	-	8
R402006274	80	d)	47,5	2	4	90	12	10,4	8
		c) d)	51,5	2	8	90	12	10,4	8
		a) b)	61,5	8	18	-	12	-	10
R402006275	100	d)	57	2	4	90	12	10,4	8
		c) d)	58	2	5	90	12	10,4	8
		a) b)	61	2	8	-	12	-	10

Piston rod cylinder ▶ Short-stroke and compact cylinders

ISO 15524, Series SSI Accessories

Part No.	Ø AB	AE	AH	AT	AU	E	L1	L2	TG	TR
R402006266	4,5	12,5	17	2	8	44	13	9,3	15,5	34
R402006267	4,5	12,5	19	2	8	47	13	9	20	38
R402006268	6,5	14,5	24	2	8	59	16	11,3	25,5	48
R402006269	6,5	16	26	2	9,5	63	17	12	28	52
R402006270	6,5	16,8	30	3	11	69	18,5	13	34	57
R402006271	6,5	17	33	3	11	75	20	13	40	64
R402006272	9	22	39	3	14,5	93,5	25	14	50	79
R402006273	11	25	46	4	17	113	25	16	60	95
R402006274	13	30	59	5	20	138	35	20,5	77	118
R402006275	13	33,5	71	5	22	159	40	24	94	137

Scope of delivery: 2 foot mountings incl. mounting screws

ZA + S = cylinder length incl. stroke

S = stroke

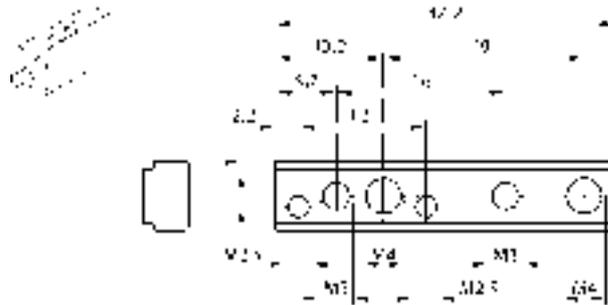
Material: Steel

Surface: galvanized

Mounting kit



00103610



00111998

Part No.	Ø	Material	Material screw	Surface screws	Weight [kg]				
1827020275	16-100	Brass	Steel	galvanized	0,02				

Piston rod cylinder ▶ Short-stroke and compact cylinders

ISO 15524, Series SSI Accessories

Piston rod mountings

Piston-Ø	PM5, Flexible coupling spherical	PM7, Flexible coupling with plate	AP2, Rod clevis steel, galvanized	AP2, Rod clevis Stainless, steel	AP6, Ball eye rod end	AP6, Rod clevis Stainless, steel	Male threaded rods
							
12	1826409008	-	1822122028	3330510000	1822124000	-	
16	1826409000	-	1822122009	3330516000	1822124001	-	2701412000
20	1826409001	-	1822122010	3330520000	1822124002	-	2701450000
25	1826409002	1827001629	1822122024	3590502000	1822124003	8958209032	2701463000
32	1826409003	1827001630	1822122025	3590504000	1822124004	8958209042	-
40	1826409003	1827001630	1822122025	3590504000	1822124004	8958209042	-
50	1826409004	1827001631	1822122005	3590505000 2990600505*	1822124005	8958209052	-
63	1826409004	1827001631	1822122005	3590505000 2990600505*	1822124005	8958209052	-
80	1826409005	1827001632	1822122004	2990600508	-	8958209062	-
100	1826409005	1827001632	1822122004	2990600508	-	8958209062	-

*Stainless steel, acid-proof

Cylinder mountings

Piston-Ø	Mounting kit	MS9, Foot mounting
		
12	-	R402006266
16	1827020275	R402006267
20	1827020275	R402006268
25	1827020275	R402006269
32	1827020275	R402006270
40	1827020275	R402006271
50	1827020275	R402006272
63	1827020275	R402006273
80	1827020275	R402006274
100	1827020275	R402006275

Piston rod cylinder ▶ Short-stroke and compact cylinders
ISO 15524, Series SSI
Accessories
Sensor, Series ST4
▶ 4 mm groove ▶ with cable ▶ open cable ends, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412019488
			5	R412019489
		electronic PNP	3	R412019680
			5	R412019681

Sensor, Series ST4
▶ 4 mm groove ▶ with cable ▶ plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019682
			0,3	R412019683
		electronic PNP	0,3	R412019683
			0,3	R412019683

Sensor, Series ST4
▶ 4 mm groove ▶ with cable ▶ plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019490
			0,5	R412019686
		electronic PNP	0,3	R412019493
			0,5	R412019687

Sensor, Series ST4
▶ 4 mm groove ▶ with cable ▶ plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019688
			0,3	R412019689
		electronic PNP	0,3	R412019689
			0,3	R412019689

Sensor, Series ST4-2P
▶ 4 mm Groove ▶ Number of switching points:2 ▶ with cable ▶ without wire end ferrule, tin-plated, 4-pin ▶ electronic PNP

		Type of contact	Cable length	Part No.
			[m]	
		electronic PNP	2	R412010139
			2	R412010139

Sensor, Series ST4-2P
▶ 4 mm Groove ▶ Number of switching points:2 ▶ with cable ▶ Plug, M8x1, 4-pin, with knurled screw ▶ electronic PNP

		Type of contact	Cable length	Part No.
			[m]	
		electronic PNP	0,3	R412010140
			0,3	R412010140

Piston rod cylinder ▶ Short-stroke and compact cylinders

ISO 15524, Series SSI

Accessories

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412007815
		Reed	3	0830100629
			5	0830100630
			10	R412004575
		electronic PNP	1,4	0830100635
			3	0830100631
			5	0830100632
			10	R412004576

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412004761
			0,3	0830100434
			0,3	R412007840
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,3	R412004762
			0,5	0830100437

Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100488
		electronic PNP	0,3	0830100489

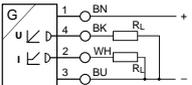
Sensor, Series ST6

▶ 6 mm groove ▶ with cable ▶ plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100432
		electronic PNP	0,3	0830100433
			3	R412010753

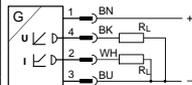
Piston rod cylinder ▶ Short-stroke and compact cylinders
ISO 15524, Series SSI
Accessories
Sensor, Series SM6

▶ 6 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 4-pin ▶ with distance measuring sensor, measuring 32 - 256 mm

		Cable length	Measurement range Max.	Overall length sensor A	Part No.
		[m]	[mm]	[mm]	
		2	32	45	R412010141
			64	77	R412010143
			96	109	R412010262
			128	141	R412010264

Sensor, Series SM6

▶ 6 mm groove ▶ with cable ▶ plug, M8x1, 4-pin, with knurled screw ▶ with distance measuring sensor, measuring 32 - 256 mm

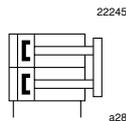
		Cable length	Measurement range Max.	Overall length sensor A	Part No.
		[m]	[mm]	[mm]	
		0,3	32	45	R412010142
			64	77	R412010144
			96	109	R412010263
			128	141	R412010265

Piston rod cylinder ▶ Guide cylinders

Mini slide compact, MSC-HG-EE

▶ Ø 8 - 25 mm ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ Easy-2-Combine-capable ▶ with double piston ▶ with integrated „High Performance“ ball rail system

Ambient temperature min./max.	+0°C / +60°C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Pressure for determining piston forces	6,3 bar
Repetitive precision	0,3 mm



Piston Ø	[mm]	2x8	2x12	2x16	2x20	2x25
Port		M5	M5	M5	G 1/8	G 1/8
Working pressure min./max.	[bar]	1,5 / 10	1 / 10	1 / 10	1 / 10	1 / 10
Retracting piston force, theoretical	[N]	48	107	218	297	520
Extracting piston force, theoretical	[N]	63	143	253	396	619
Speed max.	[m/s]	0,8	0,8	0,8	0,8	0,8
Cushioning length	[mm]	0,3	0,75	1	1,2	1,6
Cushioning energy	[Nm]	0,06	0,3	0,3	0,4	0,5

	Piston Ø	2x8	2x12	2x16	2x20	2x25
	Port	M5	M5	M5	G 1/8	G 1/8
	Stroke 10	R412019204	R412019190	R412019168	R412018910	R412019023
	20	R412019205	R412019191	R412019169	R412018911	R412019024
	30	R412019206	R412019192	R412019170	R412018912	R412019025
	40	R412019207	R412019193	R412019171	R412018913	R412019026
	50	R412019208	R412019194	R412019172	R412018914	R412019027
	80	R412019209	R412019195	R412019173	R412018915	R412019028
	100	-	R412019196	R412019174	R412018916	R412019029
	125	-	-	R412019175	R412018917	R412019030
	150	-	-	R412019176	R412018918	R412019031
	200	-	-	-	R412018919	R412019032

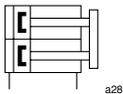
Piston rod cylinder ▶ Guide cylinders
Mini slide compact, MSC-HG-PM/PE

- ▶ Ø 16 - 25 mm ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically ▶ Easy-2-Combine-capable
 ▶ with double piston ▶ with integrated „High Performance“ ball rail system

Ambient temperature min./max.	+0 °C / +60 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Pressure for determining piston forces	6,3 bar
Repetitive precision	0,02 mm



22245



a28

Piston Ø	[mm]	2x16	2x20	2x25		
Port		M5	G 1/8	G 1/8		
Working pressure min./max.	[bar]	3 / 10	3 / 10	2 / 10		
Retracting piston force, theoretical	[N]	218	297	520		
Extracting piston force, theoretical	[N]	182	269	421		
Speed max.	[m/s]	0,8	0,8	0,8		
Cushioning length	[mm]	7	7	7		
Cushioning energy	[Nm]	0,5	1,2	1,6		

	Piston Ø	2x16	2x20	2x25		
	Stroke 50	R480640197	R480640202	R480640208		
	80	R480640198	R480640203	R480640209		
	100	R480640199	R480640204	R480640210		
	125	R480640200	R480640205	R480640211		
	150	R480640201	R480640206	R480640212		
	200	-	R480640207	R480640213		

Piston rod cylinder ▶ Guide cylinders

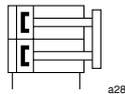
Mini slide compact, MSC-HG-HM

▶ Ø 8 - 25 mm ▶ double-acting ▶ with magnetic piston ▶ cushioning: hydraulic ▶ Easy-2-Combine-capable ▶ with double piston ▶ with integrated „High Performance“ ball rail system

Ambient temperature min./max.	+0 °C / +60 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Pressure for determining piston forces	6,3 bar
Repetitive precision	0,02 mm



22245



a28

Piston Ø	[mm]	2x8	2x12	2x16	2x20	2x25
Port		M5	M5	M5	G 1/8	G 1/8
Working pressure min./max.	[bar]	1,5 / 10	1 / 10	1 / 10	1 / 10	1 / 10
Retracting piston force, theoretical	[N]	48	107	218	297	520
Extracting piston force, theoretical	[N]	63	143	253	396	619
Speed max.	[m/s]	0,8	0,8	0,8	0,8	0,8
Cushioning length	[mm]	5	7	7	10	14
Cushioning energy	[Nm]	0,6	1	1,2	3,1	5,8

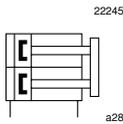
	Piston Ø	2x8	2x12	2x16	2x20	2x25
	Port	M5	M5	M5	G 1/8	G 1/8
	Stroke 20	R412019211	-	-	-	-
	30	R412019212	R412019199	R412019183	R412019000	R412019036
	40	R412019213	R412019200	R412019184	R412019001	R412019037
	50	R412019214	R412019201	R412019185	R412019002	R412019038
	80	R412019215	R412019202	R412019186	R412019003	R412019039
	100	-	R412019203	R412019187	R412019004	R412019040
	125	-	-	R412019188	R412019005	R412019041
	150	-	-	R412019189	R412019006	R412019042
	200	-	-	-	R412019007	R412019043

Piston rod cylinder ▶ Guide cylinders

Mini slide compact, MSC-MG-EE

▶ Ø 8 - 25 mm ▶ double-acting ▶ with magnetic piston ▶ cushioning: elastic ▶ Easy-2-Combine-capable ▶ with double piston ▶ with integrated „Medium Performance“ ball rail system

Ambient temperature min./max.	+0 °C / +60 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Pressure for determining piston forces	6,3 bar
Repetitive precision	0,3 mm



Piston Ø	[mm]	2x8	2x12	2x16	2x20	2x25
Port		M5	M5	M5	G 1/8	G 1/8
Working pressure min./max.	[bar]	1,5 / 10	1 / 10	1 / 10	1 / 10	1 / 10
Retracting piston force, theoretical	[N]	48	107	218	297	520
Extracting piston force, theoretical	[N]	63	143	253	396	619
Speed max.	[m/s]	0,8	0,8	0,8	0,8	0,8
Cushioning length	[mm]	0,3	0,75	1	1,2	1,6
Cushioning energy	[Nm]	0,06	0,3	0,3	0,4	0,5

	Piston Ø	2x8	2x12	2x16	2x20	2x25
	Stroke 10	R480640120	R480640126	R480640133	R480640140	R480640147
	20	R480640121	R480640127	R480640134	R480640141	R480640148
	30	R480640122	R480640128	R480640135	R480640142	R480640149
	40	R480640123	R480640129	R480640136	R480640143	R480640150
	50	R480640124	R480640130	R480640137	R480640144	R480640151
	80	R480640125	R480640131	R480640138	R480640145	R480640152
	100	-	R480640132	R480640139	R480640146	R480640153

Piston rod cylinder ▶ Guide cylinders

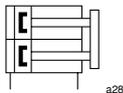
Mini slide compact, MSC-MG-PM/PE

- ▶ Ø 16 - 25 mm ▶ double-acting ▶ with magnetic piston ▶ cushioning: pneumatically ▶ Easy-2-Combine-capable
- ▶ with double piston ▶ with integrated „Medium Performance“ ball rail system

Ambient temperature min./max.	+0°C / +60°C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Pressure for determining piston forces	6,3 bar
Repetitive precision	0,02 mm



22245



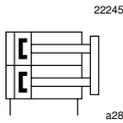
Piston Ø	[mm]	2x16	2x20	2x25		
Port		M5	G 1/8	G 1/8		
Working pressure min./max.	[bar]	3 / 10	3 / 10	2 / 10		
Retracting piston force, theoretical	[N]	218	297	520		
Extracting piston force, theoretical	[N]	182	269	421		
Speed max.	[m/s]	0,8	0,8	0,8		
Cushioning length	[mm]	7	7	7		
Cushioning energy	[Nm]	0,5	1,2	1,6		

	Piston Ø	2x16	2x20	2x25		
	Stroke 50	R480640154	R480640157	R480640160		
	80	R480640155	R480640158	R480640161		
	100	R480640156	R480640159	R480640162		

Piston rod cylinder ▶ Guide cylinders
Mini slide compact, MSC-MG-HM

- ▶ Ø 8 - 25 mm ▶ double-acting ▶ with Magnetic piston ▶ Cushioning: hydraulisch ▶ Easy-2-Combine-capable
 ▶ with Double piston ▶ with integrated „Medium Performance“ ball rail system

Ambient temperature min./max.	+0°C / +60°C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Pressure for determining piston forces	6,3 bar
Repetitive precision	0,02 mm



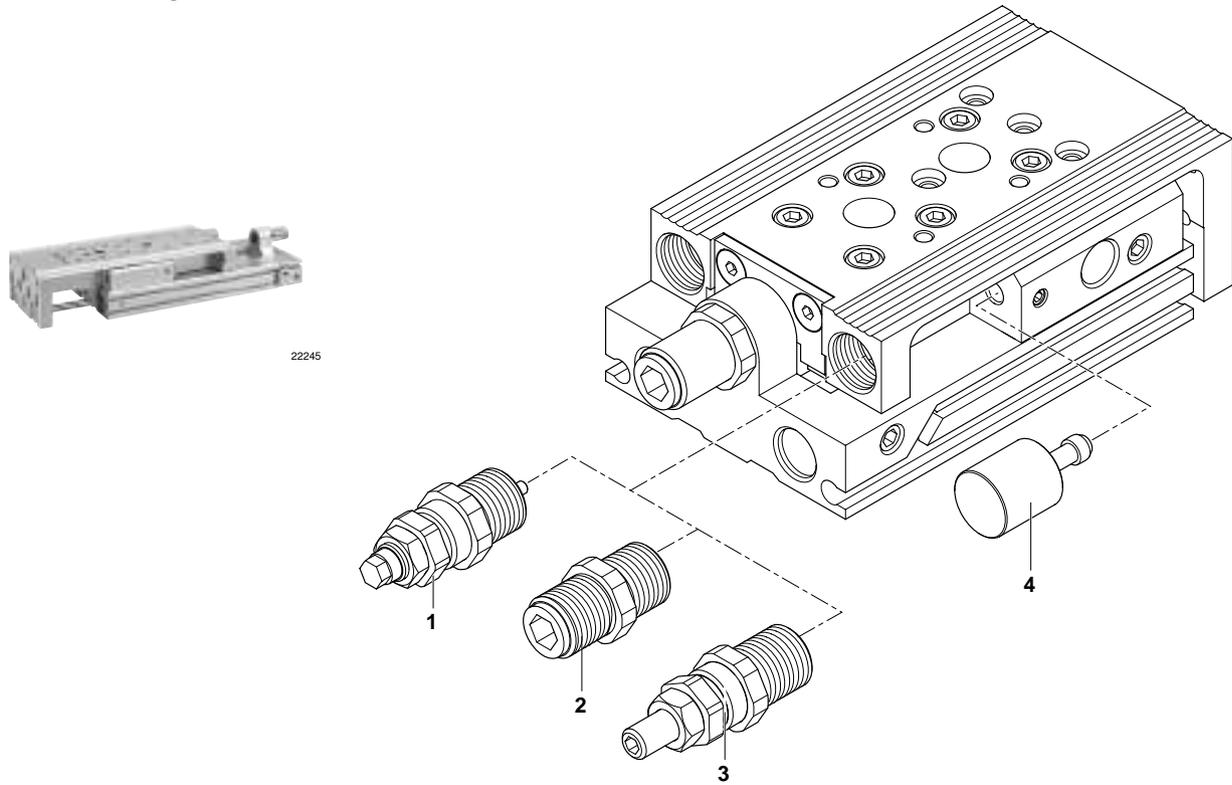
Piston Ø	[mm]	2x8	2x12	2x16	2x20	2x25
Port		M5	M5	M5	G 1/8	G 1/8
Working pressure min./max.	[bar]	1,5 / 10	1 / 10	1 / 10	1 / 10	1 / 10
Retracting piston force, theoretical	[N]	48	107	218	297	520
Extracting piston force, theoretical	[N]	63	143	253	396	619
Speed max.	[m/s]	0,8	0,8	0,8	0,8	0,8
Cushioning length	[mm]	5	7	7	10	14
Cushioning energy	[Nm]	0,6	1	1,2	3,1	5,8

	Piston Ø	2x8	2x12	2x16	2x20	2x25
	Stroke 20	R480640164	-	-	-	-
	30	R480640165	R480640171	R480640178	R480640185	R480640192
	40	R480640166	R480640172	R480640179	R480640186	R480640193
	50	R480640167	R480640173	R480640180	R480640187	R480640194
	80	R480640168	R480640174	R480640181	R480640188	R480640195
	100	-	R480640175	R480640182	R480640189	R480640196

Piston rod cylinder ▶ Guide cylinders

Series MSC Accessories

Stroke setting accessories



Part No.	Type	1)	2)	3)	Ø8	Ø12	Ø16	Ø20	Ø25
R422100795	-	1			MSC-HM	-	-	-	-
R422100797	-	1			-	MSC-HM	MSC-HM	-	-
R422100799	-	1			-	-	-	MSC-HM	-
R422100801	-	1			-	-	-	-	MSC-HM
R422100796	-	2			MSC-EE	-	-	-	-
R422100798	-	2			-	MSC-EE	MSC-EE	-	-
R422100800	-	2			-	-	-	MSC-EE	-
R422100802	-	2			-	-	-	-	MSC-EE
R412021913	-	3			MSC-EM	-	-	-	-
R412021914	-	3			-	MSC-EM	MSC-EM	-	-
R412021915	-	3			-	-	-	MSC-EM	-
R412021916	-	3			-	-	-	-	MSC-EM
7472D00616	MSC-08	4	30-80	10	-	-	-	-	-
7472D00626	MSC-08	4	30-80	20	-	-	-	-	-
R412021836	MSC-08	4	40-80	30	-	-	-	-	-
7472D00620	MSC-12 / MSC-16	4	30-100 / 30-150	10	-	-	-	-	-
7472D00619	MSC-12 / MSC-16	4	30-100 / 30-150	20	-	-	-	-	-
R412022650	MSC-12 / MSC-16	4	30-100 / 30-150	30	-	-	-	-	-
7472D00623	MSC-20 / MSC-25	4	30-200	10	-	-	-	-	-
7472D00622	MSC-20 / MSC-25	4	30-200	20	-	-	-	-	-
7472D00625	MSC-20 / MSC-25	4	40-200	30	-	-	-	-	-

1) Single parts

2) Stroke

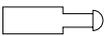
3) Additional stroke limitation in mm

Piston rod cylinder ▶ Guide cylinders
Series MSC
Accessories
Industrial shock absorber, Series SA1-MC and SA2-MS
▶ for MSC-12-HM, MSC-16-HM, MSC-20-HM ▶ sealing for piston rod: Lip ring


00127420

Ambient temperature min./max.	-20 °C / +80 °C
Aufprallspeed min./max.	See table below
Medium	Oil
Mounting	Lock groove

The delivered product varies from that in the illustration. See the drawing for an exact description.

	Type	Mounting thread	Energiaufnahme/	Stroke	for	Effective mass	Part No.
			stroke max.	[mm]		m_e	
			[Nm]			min./max.	
						[kg]	
	SA1-MC	M6x0,5	1	5	-	0,8 / 2,8	R412010284
	SA2-MS	M8x1	3	7	MSC-12-HM	1,7 / 50	R412010370
	SA2-MS	M12x1	8	10	MSC-16-HM	5 / 57	R412010371
	SA1-MC	M14x1,5	30	14	MSC-20-HM	9,9 / 76	R412010305

Part No.	Return spring force min./max.	Energiaufnahme/Stand max.	Aufprallspeed min./max.	Note	Delivery unit
	[N]	[Nm]	[m/s]		
R412010284	2 / 5	3000	0,9 / 1,6	1); 3)	1
R412010370	2,5 / 6	14100	-	1); 3)	
R412010371	3,5 / 7	26000	-	2)	
R412010305	13 / 23	50000	0,9 / 2,5	2)	

- 1) sealing for piston rod: Polyurethane
 2) sealing for piston rod: Nitrile butadiene-rubber
 3) Stop: Polyoxymethylene
 Cylinder tube: Steel, salt bath nitrocarburized
 Piston rod: Stainless Steel, hardened

End position lock


22410

Release pressure min./max.	4,5 bar / 10 bar
Ambient temperature min./max.	+0 °C / +60 °C
Medium temperature min./max.	+0 °C / +60 °C
Medium	Compressed air

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The Oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Max. permissible useful load MSC	Part No.
[kg]	
3,5	R402006023
8,5	R402006027

Piston rod cylinder ▶ Guide cylinders

Series MSC
Accessories

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ open cable ends, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412019488
			5	R412019489
		electronic PNP	3	R412019680
			5	R412019681

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019682
			0,3	R412019683
		electronic PNP	0,3	R412019683
			0,3	R412019683

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019490
			0,5	R412019686
		electronic PNP	0,3	R412019493
			0,5	R412019687

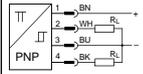
Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019688
			0,3	R412019689
		electronic PNP	0,3	R412019689
			0,3	R412019689

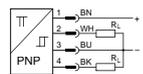
Series MSC
Accessories
Sensor, Series ST4-2P

▶ 4 mm groove ▶ number of switching points:2 ▶ with cable ▶ tin-plated, 4-pin ▶ electronic PNP

		Type of contact	Cable length [m]	Part No.
		electronic PNP	2	R412010139

Sensor, Series ST4-2P

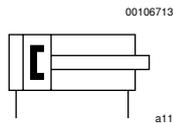
▶ 4 mm groove ▶ number of switching points:2 ▶ with cable ▶ plug, M8x1, 4-pin, with knurled screw ▶ electronic PNP

		Type of contact	Cable length [m]	Part No.
		electronic PNP	0,3	R412010140

Piston rod cylinder ▶ Guide cylinders

Guide cylinders, Series GPC-BV

▶ Ø 10 - 63 mm ▶ double-acting ▶ Ball bearing ▶ Cushioning: elastic ▶ with Magnetic piston



Ambient temperature min./max.

Medium

Max. particle size

Oil content of compressed air

Pressure for determining piston forces

-10 °C / +70 °C

Compressed air

50 µm

0 mg/m³ - 5 mg/m³

6,3 bar

Piston Ø	[mm]	10	12	16	20	25
Port		M5	M5	M5	M5	G 1/8
Working pressure min./max.	[bar]	2 / 8	2 / 8	2 / 10	2 / 10	1,5 / 10
Retracting piston force	[N]	42	53	95	148	260
Extracting piston force	[N]	49	71	127	198	309
Speed max.	[m/s]	0,5	0,5	0,5	0,5	0,8
Impact energy	[J]	0,04	0,1	0,11	0,15	0,35

Piston Ø	[mm]	32	40	50	63
Port		G 1/8	G 1/8	G 1/4	G 1/4
Working pressure min./max.	[bar]	1,3 / 10	1 / 10	1 / 10	1 / 10
Retracting piston force	[N]	435	720	1110	1837
Extracting piston force	[N]	507	792	1237	1964
Speed max.	[m/s]	0,6	0,6	0,6	0,6
Impact energy	[J]	0,4	0,52	0,64	0,75

Piston rod cylinder ▶ Guide cylinders
Guide cylinders, Series GPC-BV

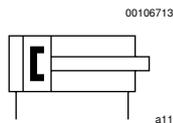
▶ Ø 10 - 63 mm ▶ double-acting ▶ Ball bearing ▶ Cushioning: elastic ▶ with Magnetic piston

	Piston Ø Piston rod-Ø	10 4	12 6	16 8	20 10	25 10	
	Stroke 10	R402000314	0822060100	0822061100	0822062100	0822063100	
	20	R402000316	0822060101	0822061101	0822062101	0822063101	
	25	R402000317	0822060107	0822061107	0822062107	0822063107	
	30	R402000318	0822060102	0822061102	0822062102	0822063102	
	40	R402000320	0822060103	0822061103	0822062103	0822063103	
	50	R402000322	0822060104	0822061104	0822062104	0822063104	
	75	R402000327	0822060105	0822061105	0822062105	0822063105	
	100	R402000332	0822060106	0822061106	0822062106	0822063106	
	125	-	0822060124	0822061124	0822062124	0822063124	
	150	-	0822060129	0822061129	0822062129	0822063129	
	160	-	-	-	-	0822063131	
	200	-	-	-	-	0822063139	
		Piston Ø Piston rod-Ø	32 12	40 12	50 16	63 16	
		Stroke 10	-	-	-	-	
		20	-	-	-	-	
		25	0822064100	0822065100	0822066100	0822067100	
		30	-	-	-	-	
		40	-	-	-	-	
		50	0822064101	0822065101	0822066101	0822067101	
		75	0822064102	0822065102	0822066102	0822067102	
	100	0822064103	0822065103	0822066103	0822067103		
	125	0822064104	0822065104	0822066104	0822067104		
	150	-	-	-	-		
	160	0822064105	0822065105	0822066105	0822067105		
	200	0822064106	0822065106	0822066106	0822067106		

Piston rod cylinder ▶ Guide cylinders

Guide cylinders, Series GPC-BV

▶ Ø 10 - 100 mm ▶ double-acting ▶ Slide bearing ▶ Cushioning: elastic ▶ with Magnetic piston



Ambient temperature min./max.

Medium

Max. particle size

Oil content of compressed air

Pressure for determining piston forces

-10 °C / +70 °C

Compressed air

50 µm

0 mg/m³ - 5 mg/m³

6,3 bar

Piston Ø	[mm]	10	12	16	20	25
Port		M5	M5	M5	M5	G 1/8
Working pressure min./max.	[bar]	2 / 8	2 / 8	2 / 8	2 / 8	1,5 / 8
Retracting piston force	[N]	42	53	95	148	260
Extracting piston force	[N]	49	71	127	198	309
Speed max.	[m/s]	0,5	0,5	0,5	0,5	0,8
Impact energy	[J]	0,04	0,1	0,11	0,15	0,35

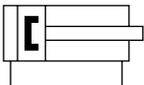
Piston Ø	[mm]	32	40	50	63	80
Port		G 1/8	G 1/8	G 1/4	G 1/4	G 1/4
Working pressure min./max.	[bar]	1,3 / 8	1 / 8	1 / 8	1 / 8	1 / 8
Retracting piston force	[N]	435	720	1110	1837	2969
Extracting piston force	[N]	507	792	1237	1964	3167
Speed max.	[m/s]	0,6	0,6	0,6	0,6	0,4
Impact energy	[J]	0,4	0,52	0,64	0,75	0,75

Piston Ø	[mm]	100				
Port		G 3/8				
Working pressure min./max.	[bar]	1 / 8				
Retracting piston force	[N]	4639				
Extracting piston force	[N]	4948				
Speed max.	[m/s]	0,4				
Impact energy	[J]	1				

Piston rod cylinder ▶ Guide cylinders

Guide cylinders, Series GPC-BV

▶ Ø 10 - 100 mm ▶ double-acting ▶ Slide bearing ▶ Cushioning: elastic ▶ with Magnetic piston

	Piston Ø Piston rod-Ø	10 4	12 6	16 8	20 10	25 10	
	Stroke 10	R402000294	0822060000	0822061000	0822062000	0822063000	
	20	R402000296	0822060001	0822061001	0822062001	0822063001	
	25	R402000297	0822060007	0822061007	0822062007	0822063007	
	30	R402000298	0822060002	0822061002	0822062002	0822063002	
	40	R402000300	0822060003	0822061003	0822062003	0822063003	
	50	R402000302	0822060004	0822061004	0822062004	0822063004	
	75	R402000307	0822060005	0822061005	0822062005	0822063005	
	100	R402000312	0822060006	0822061006	0822062006	0822063006	
	125	-	0822060024	0822061024	0822062024	0822063024	
	150	-	0822060029	0822061029	0822062029	0822063029	
	160	-	-	-	-	0822063031	
	200	-	-	-	-	0822063039	
		Piston Ø Piston rod-Ø	32 12	40 12	50 16	63 16	80 20
		Stroke 10	-	-	-	-	-
		20	-	-	-	-	-
		25	0822064000	0822065000	0822066000	0822067000	R402000914
		30	-	-	-	-	-
		40	-	-	-	-	-
		50	0822064001	0822065001	0822066001	0822067001	R402000915
		75	0822064002	0822065002	0822066002	0822067002	R402000916
	100	0822064003	0822065003	0822066003	0822067003	R402000917	
	125	0822064004	0822065004	0822066004	0822067004	R402000918	
	150	-	-	-	-	-	
	160	0822064005	0822065005	0822066005	0822067005	R402000919	
	200	0822064006	0822065006	0822066006	0822067006	R402000920	
	Piston Ø Piston rod-Ø	100 25					
	Stroke 10	-					
	20	-					
	25	R402000928					
	30	-					
	40	-					
	50	R402000929					
	75	R402000930					
	100	R402000931					
	125	R402000932					
	150	-					
	160	R402000933					
	200	R402000934					

Piston rod cylinder ▶ Guide cylinders

Series GPC-BV

Accessories

Sensor, Series ST4

▶ 4 mm Nut ▶ with Cable ▶ Plug, M8, 3-pin, with Knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019490
			0,5	R412019686
		electronic PNP	0,3	R412019493
			0,5	R412019687

Sensor, Series ST4

▶ 4 mm Nut ▶ with Cable ▶ Plug, M12, 3-pin, with Knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019688
			0,3	R412019689
		electronic PNP	0,3	R412019689

Sensor, Series ST4

▶ 4 mm Nut ▶ with Cable ▶ Plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019682
			0,3	R412019683
		electronic PNP	0,3	R412019683

Sensor, Series ST4

▶ 4 mm Nut ▶ with Cable ▶ open cable ends, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412019488
			5	R412019489
		electronic PNP	3	R412019680
			5	R412019681

Piston rod cylinder ▶ Guide cylinders

Series GPC-BV
Accessories
Sensors, Series SM6
▶ 6 mm Nut ▶ with Cable ▶ Tin-plated, 4-pin ▶ Plug, M8x1, 4-pin, with Knurled screw

	with Cable, Tin-plated	with Cable, Plug
Cable length (m)	4-pin	M8x1, 4-pin, with Knurled screw
		
0,3	-	R412010142
	-	R412010144
	-	R412010263
	-	R412010265
	-	R412010410
	-	R412010412
	-	R412010414
	-	R412010416
2	R412010141	-
	R412010143	-
	R412010262	-
	R412010264	-
	R412010411	-
	R412010413	-
	R412010415	-
	R412010417	-

Piston rod cylinder ▶ Guide cylinders

Series GPC-BV

Accessories

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	0830100629
			5	0830100630
		electronic PNP	3	0830100631
			5	0830100632

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Plug, M12, 3-pin, with Knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100432
			3	R412010753
		electronic PNP	0,3	0830100433
			3	R412010753

Sensor, Series ST6

▶ 6 mm Nut ▶ with Cable ▶ Plug, M8, 3-pin, with Knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412004761
			0,3	0830100434
			0,3	R412007840
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,3	R412004762
			0,5	0830100437

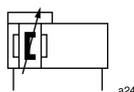
Rodless cylinders ▶ Rodless cylinders
Rodless cylinder, Series RTC-BV

▶ Ø 16 - 80 mm ▶ Ports: M7 - G 3/8 ▶ double-acting ▶ with magnetic piston ▶ integrated guide ▶ Basic Version ▶ cushioning: pneumatically, adjustable

Working pressure min./max.	2 bar / 8 bar
Ambient temperature min./max.	-10°C / +60°C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Pressure for determining piston forces	6,3 bar



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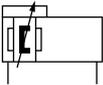
a24

Piston Ø		[mm]	16	25	32	40	50
Piston force		[N]	127	309	507	792	1237
Cushioning length		[mm]	20	20	20	20	20
Cushioning energy		[J]	1,5	4	7	10	15
Speed max.		[m/s]	5,5	6,5	4	5	3
Weight	0 mm Stroke	[kg]	0,45	0,82	1,39	2,09	3,37
	+10 mm Stroke	[kg]	0,014	0,023	0,031	0,044	0,065
Stroke max.		[mm]	6600	7000	9900	9900	9900

Piston Ø		[mm]	63	80			
Piston force		[N]	1964	3146			
Cushioning length		[mm]	20	20			
Cushioning energy		[J]	25	40			
Speed max.		[m/s]	3	3			
Weight	0 mm Stroke	[kg]	5,65	9,71			
	+10 mm Stroke	[kg]	0,098	0,157			
Stroke max.		[mm]	5800	4800			

Rodless cylinders ▶ Rodless cylinders
Rodless cylinder, Series RTC-BV

▶ Ø 16 - 80 mm ▶ Ports: M7 - G 3/8 ▶ double-acting ▶ with magnetic piston ▶ integrated guide ▶ Basic Version ▶ cushioning: pneumatically, adjustable

	Piston Ø Ports	16 M7	25 G 1/8	32 G 1/8	40 G 1/4	50 G 1/4
	Stroke 100	R480143252	R480141454	-	-	-
	200	R480143255	R480141455	R480141462	-	-
	300	R480143256	R480141456	R480141463	-	-
	400	R480143257	R480141457	R480141464	R480141472	R480148854
	500	R480143258	R480141458	R480141465	R480141473	R480146166
	600	R480143259	R480141459	R480141466	R480141474	R480149081
	700	R480143260	R480141460	R480141468	R480141475	R480145947
	800	-	R480141461	R480141469	R480141476	R480148600
	900	-	-	R480141470	R480141477	R480147023
	1000	-	-	R480141471	R480141478	R480149199
	Piston Ø Ports	63 G 3/8	80 G 3/8			
Stroke 100	-	-				
200	-	-				
300	-	-				
400	R480147730	R480147731				
500	R480147713	R480147714				
600	R480146014	R480146210				
700	R480145948	R480155522				
800	R480147223	R480147699				
900	R480146204	R480156948				
1000	R480147036	R480147700				

Configurable product


This product is configurable. Please use the Internet configurator or contact the nearest AVENTICS sales office.

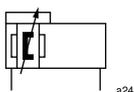
Rodless cylinders ▶ Rodless cylinders
Rodless cylinder, Series RTC-HD

▶ Ø 16 - 63 mm ▶ Ports: M7 - G 3/8 ▶ double-acting ▶ with magnetic piston ▶ ball rail guide ▶ Heavy Duty ▶ cushioning: pneumatically, adjustable ▶ Easy-2-Combine-capable with connection kit

Working pressure min./max.	4 bar / 8 bar
Ambient temperature min./max.	-10°C / +60°C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Pressure for determining piston forces	6,3 bar



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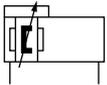
Piston Ø		[mm]	16	25	32	40	50
Piston force		[N]	127	309	507	792	1237
Cushioning length		[mm]	20	20	20	20	20
Cushioning energy		[J]	1,5	4	7	10	15
Speed max.		[m/s]	2	2	2	2	2
Weight	0 mm Stroke	[kg]	1,62	2,96	3,9	6,58	8,94
	+10 mm Stroke	[kg]	0,047	0,071	0,086	0,128	0,162
Stroke max.		[mm]	1800	4300	4300	4300	4300

Piston Ø		[mm]	63				
Piston force		[N]	1964				
Cushioning length		[mm]	20				
Cushioning energy		[J]	25				
Speed max.		[m/s]	2				
Weight	0 mm Stroke	[kg]	11,75				
	+10 mm Stroke	[kg]	0,193				
Stroke max.		[mm]	3700				

Rodless cylinders ▶ Rodless cylinders

Rodless cylinder, Series RTC-HD

▶ Ø 16 - 63 mm ▶ Ports: M7 - G 3/8 ▶ double-acting ▶ with magnetic piston ▶ ball rail guide ▶ Heavy Duty ▶ cushioning: pneumatically, adjustable ▶ Easy-2-Combine-capable with connection kit

	Piston Ø Ports	16 M7	25 G 1/8	32 G 1/8	40 G 1/4	50 G 1/4	
	Stroke 200	R480156949	R480149659	R480154726	R480155259	-	
	300	R480156950	R480149553	R480148820	R480154424	-	
	400	R480156951	R480150759	R480148602	R480154425	R480155175	
	500	R480147724	R480147725	R480147726	R480147727	R480147728	
	600	R480156953	R480153574	R480148603	R480148971	R480146987	
	700	R480156954	R480156959	R480154001	R480149554	R480156943	
	800	-	R480155572	R480150325	R480156710	R480149774	
	900	-	-	R480156963	R480156969	R480156944	
	1000	-	-	R480148582	R480150515	R480149030	
		Piston Ø Ports	63 G 3/8				
	Stroke 200		-				
	300		-				
	400	R480156946					
	500	R480147729					
	600	R480156947					
	700	R480149638					
	800	R480154379					
	900	R480149592					
	1000	R480149031					

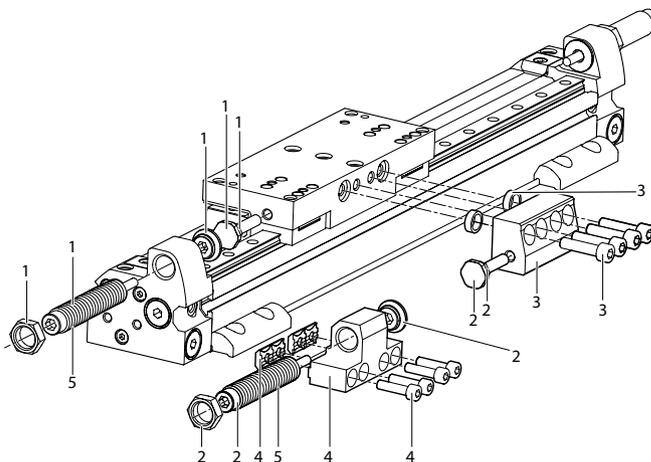
Configurable product



This product is configurable. Please use the Internet configurator or contact the nearest AVENTICS sales office.

Series RTC
Accessories
Kit for shock absorber adjustment for RTC


00125260



Part No.	m [kg]	2)	Ø16	Ø25	Ø32	Ø40	Ø50	Ø63
R402002804	<4	1, 2	RTC-HD RTC-CG CKP	-	-	-	-	-
R402002805	<8	1, 2	-	RTC-HD RTC-CG CKP	RTC-HD RTC-CG CKP	RTC-HD RTC-CG	-	-
R402002806	<23	2	-	-	-	-	RTC-HD	RTC-HD
R402003618	>4	1, 2	RTC-HD RTC-CG CKP	-	-	-	-	-
R402003619	>8	1, 2	-	RTC-HD RTC-CG CKP	RTC-HD RTC-CG CKP	RTC-HD RTC-CG	-	-
R402003620	>23	2	-	-	-	-	RTC-HD	RTC-HD
R402002695	-	3	RTC-HD RTC-CG	-	-	-	-	-
R402002696	-	3	-	RTC-HD RTC-CG	RTC-CG	-	-	-
R402002698	-	3	-	-	RTC-HD	-	-	-
R402002699	-	3	-	-	-	RTC-CG	-	-
R402002700	-	3	-	-	-	RTC-HD	-	-
R402002701	-	3	-	-	-	-	RTC-HD	RTC-HD
R402002702	-	4	RTC-HD RTC-CG CKP	-	-	-	-	-
R402002703	-	4	-	RTC-HD RTC-CG CKP	-	-	-	-
R402002704	-	4	-	-	RTC-HD RTC-CG CKP	RTC-HD RTC-CG	-	-
R402003397	-	4	-	-	-	-	RTC-HD	RTC-HD

m = mass
2) Single parts

Rodless cylinders ▶ Rodless cylinders

Serie RTC
Accessories

Cylinder mountings

Piston Ø	End cover mounting, MF1	Foot mounting, M41	Foot mounting, M48	Compensating coupling, S44
				
16	R402002728	R402003401	R402003404	R402002403
25	R402002728	R402003401	R402003404	R402002403
32	R402002729	R402003402	R402003405	R402002404
40	R402002729	R402003402	R402003405	R402002404
50	R402002730	R402003403	R402005912	R402002405
63	R402002731	R402003403	R402005912	R402002405
80	R402002731	R402003403	R402005912	R402002405

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ open cable ends, 3-pin

		Type of contact	Cable length [m]	Part No.
		Reed	3	R412019488
			5	R412019489
		electronic PNP	3	R412019680
			5	R412019681

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ Plug, M8, 3-pin

		Type of contact	Cable length [m]	Part No.
		Reed	0,3	R412019682
			0,3	R412019683
		electronic PNP	0,3	R412019683
			0,3	R412019683

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ Plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length [m]	Part No.
		Reed	0,3	R412019490
			0,5	R412019686
		electronic PNP	0,3	R412019493
			0,5	R412019687

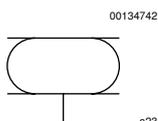
Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ Plug, M12, 3-pin, with knurled screw

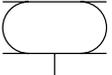
		Type of contact	Cable length [m]	Part No.
		Reed	0,3	R412019688
		electronic PNP	0,3	R412019689

Piston rod cylinder ▶ Bellow actuator
Bellow actuator, Series BCP

▶ single ▶ Stroke: 34 - 107 mm



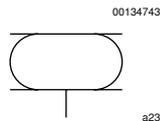
Version	Bellow actuator with cover
Functional principle	Single-acting, retracted without pressure
Max. Angle of tilt	10 ° 20 °
Working pressure min./max.	0 bar / 8 bar
Ambient temperature min./max.	-40 °C / +70 °C
Medium	Compressed air
Pressure for determining forces	6 bar

	Compressed air connection G	Stroke	Cover diameter	Min. installation space	Material bellow	Material covers	Weight	Force min./max.	Part No.
		[mm]	[mm]	[mm]			[kg]	[kN]	
	G 1/8	50	90	160	caoutchouc/ butadiene caoutchouc	Steel, galvanized	0.9	2.5 - 5.5	0822419001
	G 1/4	34	108	165			1.2	3.5 - 6.9	R412010198
	G 1/4	54	108	180			1.2	4.5 - 7.5	0822419002
	G 1/4	79	114	225			1.4	4.3 - 10.9	R412010199
	G 3/4	75	141	230			2	6.1 - 13.6	0822419003
	G 3/4	107	141	250			1.9	7 - 14	R412010197
	G 3/4	74	161	265			2.3	9.3 - 17.3	0822419004
	G 3/4	89	228	340			4.1	19.4 - 33.3	1933091000
G 3/4	104	287	400	5.9	26.1 - 50	1938091000			

Piston rod cylinder ▶ Bellow actuator

Bellow actuator, Series BCP

▶ double ▶ Stroke: 95 - 580 mm



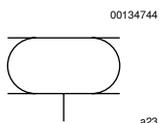
Version
 Functional principle
 Working pressure min./max.
 Ambient temperature min./max.
 Medium
 Pressure for determining forces

Bellow actuator with cover
 Single-acting, retracted without pressure
 See table below
 -40°C / +70°C
 Compressed air
 6 bar

	Compressed air connection G	Angle of tilt [°]	Stroke [mm]	Cover diameter [mm]	Min. installation space [mm]	Working pressure min./max.	Part No.
	G 1/8	15	95	90	160	0 - 8	0822419040
	G 1/4	15	108	108	180	0 - 8	0822419041
	G 3/4	15	153	141	235	0 - 8	1922161000
	G 3/4	15	223	161	275	0 - 8	2999619400
	G 3/4	15	223	228	355	0 - 8	2999638300
	G 3/4	15	223	287	415	0 - 8	R412010200
	G 3/4	15	198	420	570	0 - 8	R412021987
	G 3/4	1.5	580	420	700	0 - 6	R412010151

Part No.	Material bellow	Material covers	Weight [kg]	Force min./max. [kN]	Note
0822419040	caoutchouc/butadiene caoutchouc	Steel, galvanized	1.1	2.1 - 5.6	-
0822419041			1.5	3.5 - 8.7	-
1922161000			2.3	7.7 - 14.8	-
2999619400			3.5	8.2 - 19.5	-
2999638300			5.1	20.5 - 36.8	-
R412010200			7.3	27.8 - 52.6	-
R412021987			19.2	146 - 52.6	-
R412010151			28.5	57 - 197	1)

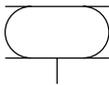
1) Permissible parallel movement 1.5 mm

Piston rod cylinder ▶ Bellow actuator
Bellow actuator, Series BCP
▶ triple ▶ Stroke: 275 - 285 mm


00134744

a23

Version	Bellow actuator with cover
Functional principle	Single-acting, retracted without pressure
Max. Angle of tilt	15 ° 30 °
Working pressure min./max.	0 bar / 8 bar
Ambient temperature min./max.	-40 °C / +70 °C
Medium	Compressed air
Pressure for determining forces	6 bar

	Copressed air connection G	Stroke [mm]	Cover diameter [mm]	Min. installation space [mm]	Material Bellow	Material Covers	Weight [kg]	Force min./max. [kN]	Part No.
	G 3/4	285 275	228 287	345 410	caoutchouc/ butadiene caoutchouc	Steel, galvanized	5.9 8	17.1 - 34.5 28.7 - 52.6	2999612800 1938281000

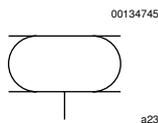
Piston rod cylinder ▶ Bellow actuator

Bellow actuator, BCR

▶ single ▶ Stroke: 94 - 135 mm

Version
 Functional principle
 Working pressure min./max.
 Ambient temperature min./max.
 Medium
 Pressure for determining forces

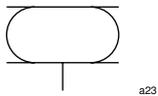
Bellow actuator with mounting ring
 Single-acting, retracted without pressure
 0 bar / 8 bar
 -40°C / +70°C
 Compressed air
 6 bar



	Stroke	Cover diameter	Min. installation space	Material bellow	Material mounting ring	Material clamping ring	Weight	Force min./max.	Part No.
	[mm]	[mm]	[mm]				[kg]	[kN]	
	107	384	480	caoutchouc/ butadiene caoutchouc	Aluminum	Aluminum	5	41 - 78	2999697410
	94	451	570				7.3	67 - 107	2999696600
	102	517	620				8.7	90 - 137	2999697310
	135	638	760				11.1	131 - 229	1971132000
	122	890	1000				22	265 - 390	2999699610

Piston rod cylinder ▶ Bellow actuator
Bellow actuator, Series BCR
▶ double ▶ Stroke: 185 - 233 mm


00134746



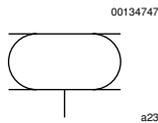
Version
 Functional principle
 Working pressure min./max.
 Ambient temperature min./max.
 Medium
 Pressure for determining forces

Bellow actuator with mounting ring
 Single-acting, retracted without pressure
 0 bar / 8 bar
 -40°C / +70°C
 Compressed air
 6 bar

	Stroke	Cover diameter	Min. installation space	Material bellow	Material mounting ring	Material clamping ring	Weight	Force min./max.	Part No.
	[mm]	[mm]	[mm]				[kg]	[kN]	
	185	384	490	caoutchouc/ butadiene caoutchouc	Aluminum	Aluminum	8.6	44 - 80	1944182000
	200	451	570				10.2	64 - 108	1951182000
	200	517	620				12	84 - 141	1957192000
	226	638	760				15.4	136 - 207	1971232000
	233	890	1000				32.9	257 - 390	2999697010

Piston rod cylinder ▶ Bellow actuator

Bellow actuator, Series BCR ▶ triple ▶ Stroke: 286 - 365 mm



Version
 Functional principle
 Working pressure min./max.
 Ambient temperature min./max.
 Medium
 Pressure for determining forces

Bellow actuator with mounting ring
 Single-acting, retracted without pressure
 0 bar / 8 bar
 -40°C / +70°C
 Compressed air
 6 bar

	Stroke	Cover diameter	Min. installation space	Material bellow	Material mounting ring	Material clamping ring	Weight	Force min./max.	Part No.
	[mm]	[mm]	[mm]				[kg]	[kN]	
	290	384	510	caoutchouc/ butadiene caoutchouc	Aluminum	Aluminum	9.3	43 - 81	1946272000
	286	451	570				12.5	65 - 114	1951282000
	305	517	630				14.5	84 - 140	2999698310
	365	638	770				17	124 - 219	1971372000
	350	890	1000				44	277 - 390	2999697110

Rotary actuators ▶ Rack-and-pinion gears
Rotary Compact Module, Series RCM-SE

▶ angle of rotation: 0 - 180 ° ▶ Ø6 - 25 mm ▶ with magnetic piston ▶ double piston with rack ▶ Easy-2-Combine-capable ▶ cushioning: elastic

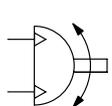


00117211

Working pressure min./max.	2 bar / 8 bar
Ambient temperature min./max.	+5 °C / +60 °C
Medium temperature min./max.	+5 °C / +60 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Theoretical torque at	6 bar

Frame size		RCM-06	RCM-08	RCM-12	RCM-16	RCM-20
Max. permissible axial bearing load	[N]	170	280	330	490	620
Max. permissible radial bearing load	[N]	170	300	360	580	780
Max. permissible mass moment of inertia	[kgcm ²]	0,08	0,25	0,7	1,6	3,2
Repetitive precision	[°]	0,2	0,2	0,2	0,2	0,2
Theoretical torque	[Nm]	0,17	0,33	0,95	1,7	3

Frame size		RCM-25			
Max. permissible axial bearing load	[N]	1160			
Max. permissible radial bearing load	[N]	1480			
Max. permissible mass moment of inertia	[kgcm ²]	6,3			
Repetitive precision	[°]	0,2			
Theoretical torque	[Nm]	6,5			

	Frame size	Compressed air connection	Angle of rotation	Swivel time min./max.	Air consumption per rotation	Weight	Part No.
			[°]	[s]	[cm ³]	[kg]	
	RCM-06	M3	0 - 90	0,08 / --	1,13	0,13	R412000357
	RCM-06	M3	0 - 180	0,12 / --	2,26	0,13	R412000358
	RCM-08	M3	0 - 90	0,1 / --	2,14	0,18	R412000359
	RCM-08	M3	0 - 180	0,16 / --	4,27	0,18	R412000360
	RCM-12	M5	0 - 90	0,1 / --	5,86	0,42	R412000361
	RCM-12	M5	0 - 180	0,16 / --	11,72	0,42	R412000362
	RCM-16	M5	0 - 90	0,13 / --	10,36	0,7	R412000363
	RCM-16	M5	0 - 180	0,2 / --	20,71	0,7	R412000364
	RCM-20	M5	0 - 90	0,16 / --	17,92	0,91	R412000365
	RCM-20	M5	0 - 180	0,25 / --	35,84	0,91	R412000366
	RCM-25	M5	0 - 90	0,16 / --	38,75	1,73	R412000367
	RCM-25	M5	0 - 180	0,25 / --	77,5	1,73	R412000368

Rotary actuators ▶ Rack-and-pinion gears

Rotary Compact Module, Series RCM-SH

▶ angle of rotation: 0 - 180 ° ▶ Ø12 - 25 mm ▶ with magnetic piston ▶ double piston with rack ▶ Easy-2-Combine-capable ▶ cushioning: elastic



00131811

Working pressure min./max.	2 bar / 8 bar
Ambient temperature min./max.	+5°C / +60°C
Medium temperature min./max.	+5°C / +60°C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Theoretical torque at	6 bar

Frame size		RCM-12	RCM-16	RCM-20	RCM-25	
Max. permissible axial bearing load	[N]	330	490	620	1160	
Max. permissible radial bearing load	[N]	360	580	780	1480	
Max. permissible mass moment of inertia	[kgcm²]	10	80	180	450	
Repetitive precision	[°]	0,05	0,05	0,05	0,05	
Theoretical torque	[Nm]	0,95	1,7	3	6,5	

	Frame size	Compressed air connection	Angle of rotation	Swivel time min./max.	Air consumption per rotation	Weight	Part No.
			[°]	[s]	[cm³]	[kg]	
	RCM-12	M5	0 - 90	0,3 / --	5,86	0,46	R412000369
	RCM-12		0 - 180	0,3 / --	11,72	0,46	R412000370
	RCM-16		0 - 90	0,32 / --	10,36	0,77	R412000371
	RCM-16		0 - 180	0,32 / --	20,71	0,77	R412000372
	RCM-20		0 - 90	0,48 / --	17,92	0,96	R412000373
	RCM-20		0 - 180	0,48 / --	35,84	0,96	R412000374
	RCM-25		0 - 90	0,6 / --	38,75	1,85	R412000375
	RCM-25		0 - 180	0,6 / --	77,5	1,85	R412000376

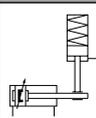
Piston rod cylinder ▶ Locking Elements, Series CL1
Holding unit, HU1

▶ Ø20 - 25 mm ▶ hold: spring force, release: compressed air



00106684

Function	Hold with clamping jaws
Release pressure min./max.	4 bar / 8 bar
Ambient temperature min./max.	-10°C / +60°C
Medium temperature min./max.	-10°C / +60°C
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³

	Piston Ø	Suitable piston rod diameter	Piston rod extension	Compressed air connection	Static holding force	Weight	Part No.
	[mm]	[mm]	[mm]		[N]	[kg]	
	20	8	54	M5	300	0,11	0821401163
	25	10	51		400		0821401164

Holding force at 0 bar

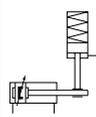
Holding unit, HU1

▶ Ø32 - 100 mm ▶ hold: spring force, release: compressed air



00104762

Function	Hold with clamping jaws
Release pressure min./max.	4 bar / 8 bar
Ambient temperature min./max.	-10°C / +60°C
Medium temperature min./max.	-10°C / +60°C
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³

	Piston Ø	Suitable piston rod diameter	Piston rod extension	Compressed air connection	Static holding force	Weight	Part No.
	[mm]	[mm]	[mm]		[N]	[kg]	
	32	12	42	M5	650	0,2	0821401165
	40	16	45	G 1/8	1100	0,27	0821401166
	50	20	57	G 1/8	1600	0,57	0821401167
	63	20	57	G 1/8	2500	0,8	0821401168
	80	25	77	G 1/8	4000	1,85	0821401169
	100	25	77	G 1/8	6300	2,9	0821401170

Holding force at 0 bar

Sensor technologies ▶ Proximity sensors

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ open cable ends, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412019488
			5	R412019489
		electronic PNP	3	R412019680
			5	R412019681
		electronic NPN	3	R412019684
			5	R412019685

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019682
			0,3	R412019683
		electronic PNP	0,3	R412019694
0,3			R412019694	

Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019490
			0,5	R412019686
		electronic PNP	0,3	R412019493
			0,5	R412019687

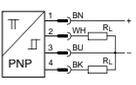
Sensor, Series ST4

▶ 4 mm groove ▶ with cable ▶ plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412019688
			0,3	R412019689
	electronic PNP	0,3	R412019689	
		0,3	R412019689	

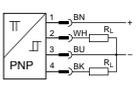
Sensor, Series ST4-2P

▶ 4 mm Groove ▶ number of switching points:2 ▶ with cable ▶ without wire end ferrule, tin-plated, 4-pin
▶ electronic PNP

		Type of contact	Cable length	Part No.
			[m]	
		electronic PNP	2	R412010139
			2	R412010139

Sensor, Series ST4-2P

▶ 4 mm groove ▶ number of switching points:2 ▶ with cable ▶ plug, M8x1, 4-pin, with knurled screw ▶ electronic PNP

		Type of contact	Cable length	Part No.
			[m]	
		electronic PNP	0,3	R412010140
			0,3	R412010140

Sensor technologies ▶ Proximity sensors
Sensor, Series ST6
▶ 6 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	3	R412007815
		Reed	3	0830100629
			5	0830100630
			10	R412004575
		electronic PNP	1,4	0830100635
			3	0830100631
			5	0830100632
			10	R412004576
	electronic NPN	3	0830100633	
		5	0830100634	

Sensor, Series ST6
▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	R412004761
			0,3	0830100434
			0,3	R412007840
			0,5	0830100436
		electronic PNP	0,3	0830100435
			0,3	R412004762
			0,5	0830100437
	electronic NPN	0,3	0830100431	

Sensor, Series ST6
▶ 6 mm groove ▶ with cable ▶ plug, M8, 3-pin

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100488
		electronic PNP	0,3	0830100489
		electronic NPN	0,3	0830100430

Sensor, Series ST6
▶ 6 mm groove ▶ with cable ▶ plug, M12, 3-pin, with knurled screw

		Type of contact	Cable length	Part No.
			[m]	
		Reed	0,3	0830100432
		electronic PNP	0,3	0830100433
			3	R412010753

Piston rod cylinder ▶ Locking Elements, Series CL1

Locking unit, LU6

▶ Ø32 - 125 mm ▶ Hold: non adjustable spring force, release: compressed air



00134922

Certificates	DGUV Test
Version	Clamping jaw lock
Function	Hold with clamping jaws
Release pressure min./max.	4 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Static holding force	See table below

	Piston Ø	Suitable piston rod diameter	Piston rod extension	Compressed air connection	Static holding force	Required flow rate Qn	Weight	Part No.
	[mm]	[mm]	[mm]		[N]	[l/min]	[kg]	
	32	12	125	G 1/8	760	40	0,8	5230996402
	40	16	125	G 1/8	1200	50	1	5231996402
	50	20	145	G 1/8	1900	90	1,8	5232996402
	63	20	165	G 1/8	3000	150	2,8	5233996402
	80	25	185	G 1/8	5000	300	5,5	5234996402
	100	25	220	G 1/8	8000	450	9,5	5235996402
	125	32	220	G 1/4	12000	700	13,8	5236996402

Holding force at 0 bar

Holding unit, LU6

Accessories

Sensors, Series IN1

▶ for locking unit Series LU6



00136289

Standardization	DIN EN 60947-5-2
Ambient temperature min./max.	-20 / 65 °C
Protection class	IP67
Hysteresis	5 - 15%, adjustable
Temperature drift	± 10 %
Residual ripple	≤ 10 %
Reproducibility	≤ 2 %
Switching logic	NO (make contact)
LED status display	Yellow

Materials:

Housing

Brass

Technical Remarks

- Flush installation.

	Operational voltage	Switching distance max.	Power consumption	Continuous current	Part No.
	[V CC]		[mA]	[mA]	
	10 / 30	2 mm	10	200	R412010426

Short circuit resistant ; Protected against polarity reversal

Sensor technologies ▶ Distance measuring sensors
Sensors, Series SM6-AL

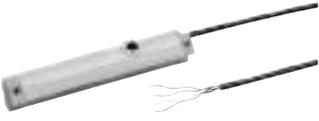
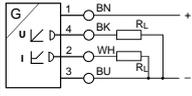
▶ with cable ▶ Plug, M8x1, 4-pin ▶ with distance measuring sensor, measurement range 107 - 1007 mm

	Cable length	Measurement range Max.	Overall length Sensor A	Part No.
	[m]	[mm]	[mm]	
	0,3	107	109	R412010880
		143	145	R412010881
		179	181	R412010882
		215	217	R412010883
		251	253	R412010884
		287	289	R412010885
		323	325	R412010886
		359	361	R412010887
		395	397	R412010888
		431	433	R412010889
		467	469	R412010890
		503	505	R412010891
		539	541	R412010892
		575	577	R412010893
		611	613	R412010894
		647	649	R412010895
		683	685	R412010896
		719	721	R412010897
		755	757	R412010898
		791	793	R412010899
827	829	R412010900		
863	865	R412010901		
899	901	R412010902		
935	937	R412010903		
971	973	R412010904		
1007	1009	R412010905		

Sensor technologies ▶ Distance measuring sensors

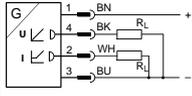
Sensors, Series SM6

▶ 6 mm groove ▶ with cable ▶ without wire end ferrule, tin-plated, 4-pin ▶ with distance measuring sensor, measurement range 32 - 256 mm

		Cable length	Measurement range Max.	Overall length Sensor A	Part No.
		[m]	[mm]	[mm]	
		2	32	45	R412010141
			64	77	R412010143
			96	109	R412010262
			128	141	R412010264
			160	173	R412010411
			192	205	R412010413
			224	237	R412010415
			256	269	R412010417

Sensoren, Serie SM6

▶ 6 mm groove ▶ with cable ▶ Plug, M8x1, 4-pin, with knurled screw ▶ with distance measuring sensor, measurement range 32 - 256 mm

		Cable length	Measurement range Max.	Overall length Sensor A	Part No.
		[m]	[mm]	[mm]	
		0,3	32	45	R412010142
			64	77	R412010144
			96	109	R412010263
			128	141	R412010265
			160	173	R412010410
			192	205	R412010412
			224	237	R412010414
			256	269	R412010416

VALVES

Valve systems

CD01-PA
581, ISO1-4
AV03
AV05

Link structure

Series AES
Series BDC B-design

Electrically operated

Series 589
Series CD04
Series CD07
Series CD12
Series HV30
Series TC08
Series TC15

Electrically operated

Series TC08
Series TC15
Series CD04
Series CD07
Series CD12

Mechanically operated

Series CD04 K
Series CD07 K

Check-choke valves

Series CC01
Series CC04

Non-return valves

Series QR1
Series NR01
Series NR02

Quick exhaust valves

Series 573

Ball valves

Series QR1

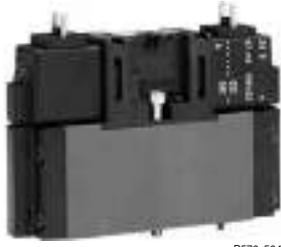
Proportional Valves

Series ED02
Series ED05
Series ED07
Series ED12

Valve systems ▶ Standardized valve systems

2x3/2-directional valve, Series CD01-PA

▶ Qn = 800 - 1010 l/min ▶ Pilot valve width: 26 mm ▶ Plate connection ▶ Compressed air connection Output: Base plate DIN ISO 15407-1 ▶ Electr. connection: Plug, EN 175301-803, Form C ▶ Manual override: with detent, without detent



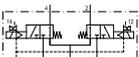
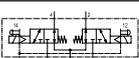
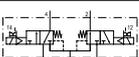
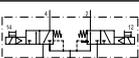
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Standards	ISO 15407-1, 26 mm
Certificates	Free of substances that impair surface wetting in the coating process
Version	Spool valve, zero overlap
Sealing principle	soft sealing
Ambient temperature min./max.	-15°C / +50°C
Medium temperature min./max.	-15°C / +50°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Pneumatic ports	Base plate DIN ISO 15407-1
version compressed air connection	nach ISO 15407-1 with collective pilot air exhaust
Connector standard	EN 175301-803, Form C
Protection class with electrical connector / plug	IP65
Duty cycle	100 %
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2,5 Nm

	MO	Operating voltage			Qn			Wor- king pressu- re min./ max.	Control pressu- re min./ max.	Switch on time	Switch off time	Weight	Note	Part No.
		DC	AC 50 Hz	AC 60 Hz	1▶2	2▶3								
							[l/min]	[bar]	[bar]	[ms]	[ms]	[kg]		
	NC/ NC		24 V	-	-	1010	1010	1010	-	2,5 / 10	27	46	0,25	2) 5763990220
	NC/ NC		24 V	-	-	1010	1010	1010	-	2,5 / 10	27	46	0,25	2) 5763990620
	NC/ NC		-	24 V 110 V	24 V 110 V	1010	1010	1010	-	2,5 / 10	27	46	0,25	5763995220 2) 5763995270
	NC/ NC		-	110 V	110 V	1010	1010	1010	-	2,5 / 10	27	46	0,25	2) 5763995670
	NC/ NC		-	230 V	230 V	1010	1010	1010	-	2,5 / 10	27	46	0,25	2) 5763995280
	NO/ NO		24 V	-	-	-	800	700	3 / --	3 / 10	26	34	0,25	2) 5763970220
	NO/ NO		24 V	-	-	-	800	700	3 / --	3 / 10	26	34	0,25	2) 5763970620
	NO/ NO		-	24 V 110 V	24 V 110 V	-	800	700	3 / --	3 / 10	26	34	0,25	5763975220 2) 5763975270
	NO/ NO		-	110 V	110 V	-	800	700	3 / --	3 / 10	26	34	0,25	2) 5763975670
	NO/ NO		24 V	-	-	-	800	700	0 / 16	-- / 10	26	34	0,25	1); 3) 5763960220

Valve systems ▶ Standardized valve systems
2x3/2-Directional valve, Series CD01-PA

▶ Qn = 800 - 1010 l/min ▶ pilot valve width: 26 mm ▶ plate connection ▶ compressed air connection output: Base plate DIN ISO 15407-1 ▶ electr. connection: Plug, EN 175301-803, Form C ▶ manual override: with detent, without detent

		MO	Operating voltage			Qn			Working pressure min./max.	Control pressure min./max.	Switch on time	Switch off time	Weight	Note	Part No.
			DC	AC 50 Hz	AC 60 Hz	1▶2	2▶3								
						[l/min]			[bar]	[bar]	[ms]	[ms]	[kg]		
	NO/NO		24 V	-	-	-	800	700	0 / 16	-- / 10	26	34	0,25	1); 3)	5763960620
	NO/NO		-	110 V	110 V	-	800	700	0 / 16	-- / 10	26	34	0,25	2)	5763965270
	NO/NO		-	110 V	110 V	-	800	700	0 / 16	-- / 10	26	34	0,25	2)	5763965670
	NC/NO		24 V	-	-	1010	1010	1010	-	2,5 / 10	27	46	0,25	1)	5763950220
	NC/NO		24 V	-	-	1010	1010	1010	-	2,5 / 10	27	46	0,25	1)	5763950620
	NC/NO		-	110 V	110 V	1010	1010	1010	-	2,5 / 10	27	46	0,25	1)	5763955270
	NC/NO		-	110 V	110 V	1010	1010	1010	-	2,5 / 10	27	46	0,25	1)	5763955670

1) Pilot: internal
 2) Pilot: external
 3) Low power consumption
 Nominal flow Qn at 6 bar and $\Delta p = 1$ bar
 MO = Manual override

Valve systems ▶ Standardized valve systems

5/2-Directional valve, Series CD01-PA

▶ Qn = 1010 l/min ▶ pilot valve width: 26 mm ▶ plate connection ▶ compressed air connection output: Base plate DIN ISO 15407-1 ▶ electr. connection: Plug, EN 175301-803, Form C ▶ manual override: with detent, without detent



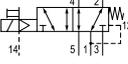
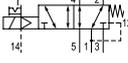
P576_506

Standards	ISO 15407-1, 26 mm
Certificates	Free of substances that impair surface wetting in the coating process
Version	Spool valve, zero overlap
Sealing principle	soft sealing
Working pressure min./max.	See table below
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Pneumatic ports	Base plate DIN ISO 15407-1
Version pneumatic port	according to ISO 15407-1 with collective pilot air exhaust
Connector standard	EN 175301-803, form C
Protection class with electrical connector / plug	IP65
Duty cycle	100 %
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2,5 Nm

	MO	Operating voltage			Qn			Working pressure min./max.	Control pressure min./max.	Ambient temperature min./max.	Medium temperature min./max.	Switch on time	Part No.
		DC	AC 50 Hz	AC 60 Hz		1▶2	2▶3						
					[l/min]			[bar]	[bar]	[°C]		[ms]	
		12 V	-	-	1010	1010	1010	3 / 10	3 / 10	-15°C / +50°C	-15°C / +50°C	29	5763510210
		24 V	-	-	1010	1010	1010	3 / 10	3 / 10	-15°C / +50°C	-15°C / +50°C	29	5763510220
		24 V	-	-	1010	1010	1010	3 / 10	3 / 10	-15°C / +50°C	-15°C / +50°C	29	5763510620
		-	24 V	24 V	1010	1010	1010	3 / 10	3 / 10	+0°C / +50°C	+0°C / +50°C	29	5763510920
		-	110 V	110 V	1010	1010	1010	3 / 10	3 / 10	-15°C / +50°C	-15°C / +50°C	29	5763515220
		-	110 V	110 V	1010	1010	1010	3 / 10	3 / 10	-15°C / +50°C	-15°C / +50°C	29	5763515270
		-	230 V	230 V	1010	1010	1010	3 / 10	3 / 10	-15°C / +50°C	-15°C / +50°C	29	5763515670
		-	230 V	230 V	1010	1010	1010	3 / 10	3 / 10	-15°C / +50°C	-15°C / +50°C	29	5763515280
		24 V	-	-	1010	1010	1010	0 / 16	-- / 10	-15°C / +50°C	-15°C / +50°C	34	5763600220
		-	24 V	24 V	1010	1010	1010	0 / 16	-- / 10	-15°C / +50°C	-15°C / +50°C	34	5763600620
		-	110 V	110 V	1010	1010	1010	0 / 16	-- / 10	-15°C / +50°C	-15°C / +50°C	34	5763605220
		-	110 V	110 V	1010	1010	1010	0 / 16	-- / 10	-15°C / +50°C	-15°C / +50°C	34	5763605270

Valve systems ▶ Standardized valve systems
5/2-Directional valve, Series CD01-PA

▶ Qn = 1010 l/min ▶ Pilot valve width: 26 mm ▶ Plate connection ▶ Compressed air connection output: Base plate
 DIN ISO 15407-1 ▶ Electr. connection: Plug, EN 175301-803, Form C ▶ Manual override: with detent, without detent

	MO	Operating voltage			Qn			Working pressure min./max.	Control pressure min./max.	Ambient temperature min./max.	Medium temperature min./max.	Switch on time	Part No.
		DC	AC 50 Hz	AC 60 Hz		1▶2	2▶3						
					[l/min]			[bar]	[bar]	[°C]	[ms]		
		-	110 V	110 V	1010	1010	1010	0 / 16	-- / 10	-15°C / +50°C	-15°C / +50°C	34	5763605670
		-	230 V	230 V	1010	1010	1010	0 / 16	-- / 10	-15°C / +50°C	-15°C / +50°C	34	5763605280

Part No.	Switch off time	Weight	Note
	[ms]	[kg]	
5763510210	42	0,21	1)
5763510220	42	0,21	1)
5763510620	42	0,21	1)
5763510920	42	0,21	1); 3)
5763515220	42	0,21	2)
5763515270	42	0,21	2)
5763515670	42	0,21	2)
5763515280	42	0,21	2)
5763600220	35	0,21	2)
5763600620	35	0,21	2)
5763605220	35	0,21	2)
5763605270	35	0,21	2)
5763605670	35	0,21	2)
5763605280	35	0,21	2)

1) Pilot: internal
 2) Pilot: external
 3) Low power consumption
 Nominal flow Qn at 6 bar and Δp = 1 bar
 MO = Manual override

Valve systems ▶ Standardized valve systems

5/2-Directional valve, Series CD01-PA

▶ Qn = 1010 l/min ▶ Pilot valve width: 26 mm ▶ Plate connection ▶ Compressed air connection Output: Base plate DIN ISO 15407-1 ▶ Electr. connection: Plug, EN 175301-803, Form C ▶ Manual override: with detent, without detent ▶ double solenoid



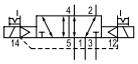
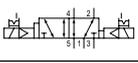
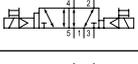
P576_504

Standards	ISO 15407-1, 26 mm
Certificates	Free of substances that impair surface wetting in the coating process
Version	Spool valve, zero overlap
Sealing principle	soft sealing
Working pressure min./max.	See table below
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Pneumatic ports	Base plate DIN ISO 15407-1
Version pneumatic port	nach ISO 15407-1 with collective pilot air exhaust
Connector standard	EN 175301-803
Protection class with electrical connector / plug	IP65
Duty cycle	100 %
Switch on time	17 ms
Switch off time	17 ms
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2,5 Nm

	MO	Operating voltage			Qn			Working pressure min./max.	Control pressure min./max.	Ambient temperature min./max.	Medium temperature min./max.	Weight	Note	Part No.
		DC	AC 50 Hz	AC 60 Hz		1▶2	2▶3							
					[l/min]			[bar]	[bar]	[°C]		[kg]		
		24 V	-	-	1010	1010	1010	2 / 10	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	1)	5763520220
		24 V	-	-	1010	1010	1010	2 / 10	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	1)	5763520620
		-	24 V 110 V	24 V 110 V	1010	1010	1010	2 / 10	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	1)	5763525220 5763525270
		-	110 V	110 V	1010	1010	1010	2 / 10	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	1)	5763525670
		-	230 V	230 V	1010	1010	1010	2 / 10	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	1)	5763525280
		24 V	-	-	1010	1010	1010	-0,95 / 16	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	2)	5763650220
		24 V	-	-	1010	1010	1010	-0,95 / 16	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	2)	5763650620
		-	110 V	110 V	1010	1010	1010	-0,95 / 16	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	2)	5763655270
		-	110 V	110 V	1010	1010	1010	-0,95 / 16	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	2)	5763655670

Valve systems ▶ Standardized valve systems
5/2-Directional valve, Series CD01-PA

▶ Qn = 1010 l/min ▶ Pilot valve width: 26 mm ▶ Plate connection ▶ Compressed air connection output: Base plate
 DIN ISO 15407-1 ▶ Electr. connection: Plug, EN 175301-803, Form C ▶ manual override: with detent, without detent,
 without ▶ double solenoid

	MO	Operating voltage			Qn			Wor- king pressu- re min./ max.	Control pres- sure min./ max.	Ambient tempera- ture min./ max.	Medium tempera- ture min./ max.	Weight	Note	Part No.
		DC	AC 50 Hz	AC 60 Hz	1▶2	2▶3								
					[l/min]	[bar]	[bar]							
		-	230 V	230 V	1010	1010	1010	-0,95 / 16	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	2)	5763655280
		24 V -	110 V	110 V	1010	1010	1010	2 / 10	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	1)	5763530220 5763535270
		24 V -	110 V	110 V	1010	1010	1010	2 / 10	2 / 10	-15°C / +50°C	-15°C / +50°C	0,26	1)	5763530620 5763535670
		-	24 V	-	1010	1010	1010	2 / 16	2 / 10	+0°C / +50°C	+0°C / +50°C	0,26	1); 3)	5763530920

1) Pilot: internal

2) Pilot: external

3) Low power consumption

Nominal flow Qn at 6 bar and Δp = 1 bar

MO = Manual override

Valve systems ▶ Standardized valve systems

5/3-Directional valve, Series CD01-PA

▶ Qn = 650 - 750 l/min ▶ Pilot valve width: 26 mm ▶ Plate connection ▶ Compressed air connection Output: Base plate DIN ISO 15407-1 ▶ Electr. connection: Plug, EN 175301-803, Form C ▶ Manual override: with detent, without detent



P576_504

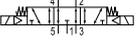
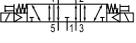
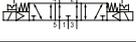
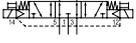
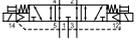
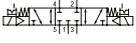
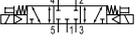
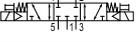
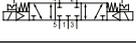
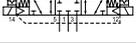
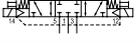
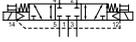
Standards	ISO 15407-1, 26 mm
Certificates	Free of substances that impair surface wetting in the coating process
Version	Spool valve, zero overlap
Sealing principle	soft sealing
Working pressure min./max.	See table below
Ambient temperature min./max.	-15°C / +50°C
Medium temperature min./max.	-15°C / +50°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Pneumatic ports	Base plate DIN ISO 15407-1
Version pneumatic port	according to ISO 15407-1 with collective pilot air exhaust
Connector standard	EN 175301-803, Form C
Protection class with electrical connector / plug	IP65
Duty cycle	100 %
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2,5 Nm

	MO	Operating voltage			Qn		Working pressure min./max.	Control pressure min./max.	Switch on time	Switch off time	Weight	Note	Part No.
		DC	AC 50 Hz	AC 60 Hz		1▶2							
						[l/min]	[bar]	[bar]	[ms]	[ms]	[kg]		
		24 V	-	-	-	750	650	3 / 10	3 / 10	27	55	1)	5763800220
		24 V	-	-	-	750	650	3 / 10	3 / 10	27	55	1)	5763800620
	-	24 V	-	-	-	750	650	3 / 16	3 / 16	27	55	1); 3)	5763800920
		-	110 V	110 V	-	750	650	3 / 10	3 / 10	27	55	1)	5763805270
		-	110 V	110 V	-	750	650	3 / 10	3 / 10	27	55	1)	5763805670
		24 V	-	-	-	750	650	-0,95 / 16	3 / 10	27	55	2)	5763850220
		24 V	-	-	-	750	650	-0,95 / 16	3 / 10	27	55	2)	5763850620
		-	110 V	110 V	-	750	650	-0,95 / 16	3 / 10	27	55	2)	5763855270
		-	110 V	110 V	-	750	650	-0,95 / 16	3 / 10	27	55	2)	5763855670
		24 V	-	-	-	650	750	3 / 10	3 / 10	24	58	1)	5763810220

1) Pilot: internal
 2) Pilot: external
 3) Low power consumption
 Nominal flow Qn at 6 bar and Δp = 1 bar
 MO = Manual override

Valve systems ▶ Standardized valve systems
5/3-Directional valve, Series CD01-PA

▶ Qn = 650 - 750 l/min ▶ Pilot valve width: 26 mm ▶ Plate connection ▶ Compressed air connection output: Base plate DIN ISO 15407-1 ▶ Electr. connection: Plug, EN 175301-803, Form C ▶ manual override: with detent, without detent

	MO	Operating voltage			Qn			Working pressure min./max.	Control pressure min./max.	Switch on time	Switch off time	Weight	Note	Part No.
		DC	AC 50 Hz	AC 60 Hz		1▶2	2▶3							
					[l/min]			[bar]	[bar]	[ms]	[ms]	[kg]		
		24 V	-	-	-	650	750	3 / 10	3 / 10	24	58	0,27	1)	5763810620
	-	24 V	-	-	-	650	750	3 / 16	3 / 16	24	58	0,27	1); 3)	5763810920
		-	24 V 110 V	24 V 110 V	-	650	750	3 / 10	3 / 10	24	58	0,27	1)	5763815220 5763815270
		-	110 V	110 V	-	650	750	3 / 10	3 / 10	24	58	0,27	1)	5763815670
		-	230 V	230 V	-	650	750	3 / 10	3 / 10	24	58	0,27	1)	5763815280
		24 V	-	-	-	650	750	-0,95 / 16	3 / 10	24	58	0,27	2)	5763860220
		24 V	-	-	-	650	750	-0,95 / 16	3 / 10	24	58	0,27	2)	5763860620
		-	110 V	110 V	-	650	750	-0,95 / 16	3 / 10	24	58	0,27	2)	5763865270
		-	110 V	110 V	-	650	750	-0,95 / 16	3 / 10	24	58	0,27	2)	5763865670
		12 V 24 V	-	-	650	650	650	3 / 10	3 / 10	24	49	0,27	1)	5763820210 5763820220
		24 V	-	-	650	650	650	3 / 10	3 / 10	24	49	0,27	1)	5763820620
		-	110 V	110 V	650	650	650	3 / 10	3 / 10	24	49	0,27	1)	5763825270
		-	110 V	110 V	650	650	650	3 / 10	3 / 10	24	49	0,27	1)	5763825670
		-	230 V	230 V	650	650	650	3 / 10	3 / 10	24	49	0,27	1)	5763825280
		24 V	-	-	650	650	650	-0,95 / 16	3 / 10	24	49	0,27	2)	5763870220
		24 V	-	-	650	650	650	-0,95 / 16	3 / 10	24	49	0,27	2)	5763870620
		-	110 V	110 V	650	650	650	-0,95 / 16	3 / 10	24	49	0,27	2)	5763875270
		-	110 V	110 V	650	650	650	-0,95 / 16	3 / 10	24	49	0,27	2)	5763875670

1) Pilot: internal

2) Pilot: external

3) Low power consumption

Nominal flow Qn at 6 bar and Δp = 1 bar

MO = Manual override

Valve systems ▶ Standardized valve systems

2x3/2-Directional valve, Series CD01-PA

▶ $Q_n = 1010$ l/min ▶ Plate connection ▶ Compressed air connection output: Base plate DIN ISO 15407-1 ▶ Suitable for ATEX



P571_400

Standards	ISO 15407-1
ATEX	3 G
Version	Spool valve, zero overlap
Sealing principle	soft sealing
Certificates	Free of substances that impair surface wetting in the coating process
Working pressure min./max.	2,5 bar / 16 bar
Control pressure min./max.	-- / 16 bar
Ambient temperature min./max.	-15°C / +50°C
Medium temperature min./max.	-15°C / +50°C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	nach ISO 15407-1
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2,5 Nm

		Compressed air connection				Flow rate value			Weight	Part No.
		Input	Output	Exhaust	Pilot connection	Qn	Qn 1▶2	Qn 2▶3		
						[l/min]			[kg]	
	NC/NC	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	1010	1010	1010	0,16	5714003990

Nominal flow Q_n at 6 bar and $\Delta p = 1$ bar

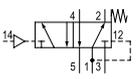
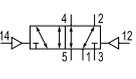
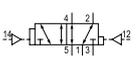
Valve systems ▶ Standardized valve systems
5/2-Directional valve, Series CD01-PA

▶ $Q_n = 1010$ l/min ▶ plate connection ▶ compressed air connection output: Base plate DIN ISO 15407-1 ▶ Suitable for ATEX



P571_400

Standards	ISO 15407-1
ATEX	3 G
Version	Spool valve, zero overlap
Sealing principle	soft sealing
Certificates	Free of substances that impair surface wetting in the coating process
Working pressure min./max.	-0,95 bar / 16 bar
Control pressure min./max.	See table below
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 μ m
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 15407-1
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2,5 Nm

	Compressed air connection				Flow rate value			Control pressure min./max. [bar]	Ambient temperature min./max. [°C]	Medium temperature min./max. [°C]	Part No.
	Input	Output	Exhaust	Pilot connection	Q_n	Q_n 1▶2	Q_n 2▶3				
	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	1010	1010	1010	-- / 16	-15°C / +50°C	-15°C / +50°C	5714003500
	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	1010	1010	1010	2 / 16	-15°C / +50°C	-15°C / +50°C	5714003520
	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	1010	1010	1010	2 / 16	+0°C / +50°C	+0°C / +50°C	5714003530

Part No.	Weight [kg]	Note
5714003500	0,16	-
5714003520	0,16	-
5714003530	0,16	1)

1) With differential piston, Signal 14 has priority
Nominal flow Q_n at 6 bar and $\Delta p = 1$ bar

Valve systems ▶ Standardized valve systems

5/3-Directional valve, Series CD01-PA

- ▶ Qn = 650 - 750 l/min ▶ Plate connection ▶ Compressed air connection Output: Base plate DIN ISO 15407-1
- ▶ suitable for ATEX



P571_400

Standards	ISO 15407-1
ATEX	3 G
Version	Spool valve, zero overlap
Sealing principle	soft sealing
Certificates	Free of substances that impair surface wetting in the coating process
Working pressure min./max.	-0,95 bar / 16 bar
Control pressure min./max.	3 bar / 16 bar
Ambient temperature min./max.	-15°C / +50°C
Medium temperature min./max.	-15°C / +50°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Compressed air connection	nach ISO 15407-1
Mounting screw	M4 with hexagon socket
Mounting screw tightening torque	2,5 Nm

	Compressed air connection				Flow rate value			Weight [kg]	Part No.
	Input	Output	Exhaust	Pilot connection	Qn	Qn 1▶2	Qn 2▶3		
	[l/min]								
	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	-	650	750	0,16	5714003810
	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	-	750	650	0,16	5714003800
	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	Base plate DIN ISO 15407-1	650	650	650	0,16	5714003820

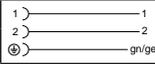
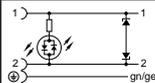
Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Standardized valve systems
**ISO 15407-1, 26 mm, Series CD01-PA
Accessories**
Electrical connectors, Series CN1
▶ ISO 15217 ▶ Electrical connector, form C ▶ 8 mm


P894_220

Ambient temperature min./max.	-40 °C / +90 °C
Protection class	IP65
Mounting screw tightening torque	0,4 Nm

Materials:	
Housing	Polyamide

	Cable fitting	Operating voltage		Current, max. [A]	Contact assignment	Cable exit	Protective circuit	Part No.
		DC	AC					
		[V]	[V]					
	M12x1,5 PG 7	300	250	6	2+E	gewinkelt 90°	-	1834484187 8941012202
	M12x1,5	24	24	-	2+E	gewinkelt 90°	Z-Diode	4402050330

Part No.	Suitable cable-Ø min./max. [mm]	Number of plug options 1	Status display	Status display LED	Housing color	Weight [kg]	Note
1834484187 8941012202	4 / 6	4 Positionen à 90°	-	-	Black	0,012	1); 2)
4402050330	-	4 Positionen à 90°	1 LED	Green	Transparent	0,014	1)

1) Profile seal

2) Seal: caoutchouc / butadiene caoutchouc

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA Accessories

Electrical connectors with cable, Series CN1

▶ ISO 15217, form C ▶ 8 mm ▶ with cable

Ambient temperature min./max. -20°C / +80°C
 Protection class IP67
 Mounting screw tightening torque 0,4 Nm

Materials:
 Seals caoutchouc / butadiene caoutchouc



P894_018

	Operating voltage max.		Current, max.	Protective circuit	Contact assignment	Status display LED	Cable length L	Part No.
	[V DC]	[V AC]	[A]					
	24	24	6	Z-diode	2+E	yellow	3	1834484204
							3	1834484205
							5	1834484206
							5	1834484207
	230	230	6	Varistor	2+E	yellow	3	1834484208
							3	1834484209
							5	1834484210
							5	1834484211
	230	230	6	-	2+E	-	3	1834484212
							3	1834484213
							5	1834484214
							5	1834484215

Part No.	Weight	Note
	[kg]	
1834484204	0,185	
1834484205	0,185	
1834484206	0,292	1)
1834484207	0,298	
1834484208	0,171	
1834484209	0,194	
1834484210	0,297	1)
1834484211	0,285	
1834484212	0,183	
1834484213	0,183	
1834484214	0,308	
1834484215	0,308	

1) Flat gasket

ISO 15407-1, 26 mm, Series CD01-PA
Accessories
Contact bridge

▶ Control: plug M12 ▶ Plug, M12x1, 4-pin ▶ Number of solenoid coils: 1



P576_357

Ambient temperature min./max.	-15°C / +50°C
Protection class	IP65
Protective circuit	43V Bidirectional
Operating voltage	24 V
Operating voltage AC at 50 Hz	24 V
Operating voltage AC at 60 Hz	24 V
Voltage tolerance DC	-20% / +20%
Voltage tolerance AC 50 Hz	-10% / +10%
Voltage tolerance AC 60 Hz	-10% / +10%
Status display LED valve	Gelb
Mounting screw	M2,5 with slot
Tightening torque for Mounting screw [+0,05]	0,25 Nm

Materials:

Housing	Polyetherimid
Seals	Fluorocautchouc

Port	Weight	Part No.
to valve		
	[kg]	
Electrical connector, ISO 15217, form C	0,016	5763573113

Contact bridge

▶ Control: plug M12 ▶ Plug, M12x1, 4-pin ▶ Number of solenoid coils: 2



P576_358

Ambient temperature min./max.	-15°C / +50°C
Protection class	IP65
Protective circuit	43V Bidirectional
Operating voltage	24 V
Operating voltage AC at 50 Hz	24 V
Operating voltage AC at 60 Hz	24 V
Voltage tolerance DC	-20% / +20%
Voltage tolerance AC 50 Hz	-10% / +10%
Voltage tolerance AC 60 Hz	-10% / +10%
Status display LED valve	Gelb
Mounting screw	M2,5 with slot
Tightening torque for Mounting screw [+0,05]	0,25 Nm

Materials:

Housing	Polyetherimid
Seals	Fluorocautchouc

Port	Weight	Part No.
to valve		
	[kg]	
Electrical connectors, ISO 15217, form C	0,026	5763573103

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA Accessories

Single subbase, ports on side

▶ standard: ISO 15407-1 ▶ Frame size: 26 mm ▶ compressed air connection output: Ø6x1 - Ø 8x1 ▶ Reversed pressure supply permissible ▶ With collective pilot air exhaust



1006-031

Ambient temperature min./max.	-25 °C / +70 °C
Medium temperature min./max.	-25 °C / +70 °C
Medium	Compressed air
Working pressure min./max.	-0,95 bar / 16 bar
Number of valve positions	1
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (3,5)	On the side
Direction of pneumatic port (2,4)	On the side
Direction of pneumatic port (12)	On the side
Direction of pneumatic port (14)	On the side
Exhaust (3,5)	With directional exhaust (3/5) Ports separated
Compressed air connection	according to ISO 15407-1
Materials:	
Base plate	Polyamide, fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The Oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Frame size	Compressed air connection					Weight	Part No.
	Input	Output	Exhaust	Pilot control exhaust	Pilot connection		
	[1]	[2 / 4]	[3 / 5]	[12]	[14]	[kg]	
26 mm	Ø6x1 Ø 8x1	Ø6x1 Ø 8x1	G 1/8	Ø 4	Ø 4	0,074	8985121372 8985121382

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA Accessories

Base plate

▶ standard: ISO 15407-1 ▶ Frame size: 26 mm ▶ Type A ▶ compressed air connection output: G 1/4 - Ø 10x1
▶ Can be assembled into blocks ▶ Single base plate principle ▶ Reversed pressure supply permissible ▶ With collective pilot air exhaust



Ambient temperature min./max.	-15 °C / +70 °C
Medium temperature min./max.	-15 °C / +70 °C
Medium	Compressed air
Working pressure min./max.	-0,95 bar / 16 bar
Number of valve positions	1
Grid dimension	27,1 mm
Mounting screw	with hexagon socket
Tightening torque for Mounting screw	4 Nm±0,5
Exhaust (3,5)	With directional exhaust (3/5)
	Ports separated
Compressed air connection	nach ISO 15407-1
Materials:	
Base plate	Die-cast aluminum
Seals	Acrylonitrile butadiene rubber

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The Oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Frame size	Compressed air connection			Connection direction	Weight	Part No.
	Output	Pilot control Exhaust	Pilot connection			
	[2 / 4]	[R]	[X]			
26 mm	G 1/4	-	-	Seitlich	0,195	1825504023
	1/4-18 NPTF	-	-	Seitlich		1825504024
	Ø 10x1	-	-	Seitlich		1825504025
	G 1/4	M5	M5	Seitlich		1825504026
	1/4-18 NPTF	M5	M5	Seitlich		1825504027
	Ø 10x1	M5	M5	Seitlich		1825504028
	G 1/4	-	-	Nach unten		1825504029
	G 1/4	M5	M5	Nach unten		1825504030

Scope of delivery incl. seal and mounting screws

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA Accessories

End plate left, End plate right

▶ standard: ISO 15407-1 ▶ Frame size: 26 mm ▶ Type A ▶ can be assembled into blocks ▶ base plate principle, multiple ▶ reversed pressure supply permissible ▶ With collective pilot air exhaust



00103903

Ambient temperature min./max.	-15 °C / +70 °C
Medium temperature min./max.	-15 °C / +70 °C
Medium	Compressed air
Working pressure min./max.	-0,95 bar / 16 bar
Grid dimension	27,1 mm
Mounting screw	with hexagon socket
Tightening torque for Mounting screw	4 Nm±0,5
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (3,5)	On the side
Direction of pneumatic port (12)	On the side
Direction of pneumatic port (14)	On the side
Exhaust (3,5)	With directional exhaust (3/5) Ports separated
Materials:	
Base plate	Die-cast aluminum
Seals	Acrylonitrile butadiene rubber

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The Oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

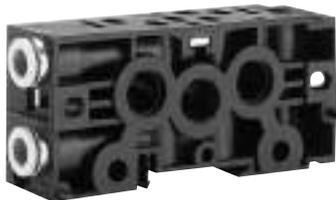
Frame size	Compressed air connection				Part No.
	Input	Exhaust	Pilot control exhaust	Pilot connection	
	[1]	[3 / 5]	[12]	[14]	
26 mm	G 3/8 3/8-18 NPTF	G 3/8 3/8-18 NPTF	G 1/8 1/8-27 NPTF	G 1/8 1/8-27 NPTF	1825504031 1825504032

scope of delivery: end plate kit incl. seal and mounting screws

Valve systems ▶ Standardized valve systems
ISO 15407-1, 26 mm, Series CD01-PA
Accessories
Base plate, ports 2 and 4 on side

▶ standard: ISO 15407-1 ▶ Frame size: 26 mm ▶ Type B ▶ compressed air connection output: Ø 4 - G 1/8

▶ can be assembled into blocks ▶ Single base plate principle ▶ Reversed pressure supply permissible



P898_105

Ambient temperature min./max.	-25 °C / +70 °C
Medium temperature min./max.	-25 °C / +70 °C
Medium	Compressed air
Working pressure min./max.	-0,95 bar / 16 bar
Number of valve positions	1
Grid dimension	27 mm
Mounting screw	with hexagon socket
Tightening torque for Mounting screw	4 Nm±0,5
Direction of pneumatic port (3,5)	On the side
Direction of pneumatic port (2,4)	On the side
Exhaust (3,5)	With directional exhaust (3/5)
	Ports separated
Compressed air connection	nach ISO 15407-1
Materials:	
Base plate	Polyamide, fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The Oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Frame size	Compressed air connection	Weight	Part No.
	Output		
	[2 / 4]	[kg]	
26 mm	Ø 4	-	8985121162
	Ø6x1	0,13	8985121122
	Ø 8x1	-	8985121052
	G 1/8	-	8985121092

Scope of delivery incl. seal and mounting screws

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA
Accessories

End plate left

▶ standard: ISO 15407-1 ▶ Frame size: 26 mm ▶ Type B ▶ can be assembled into blocks ▶ reversed pressure supply permissible ▶ I/O extension possible ▶ with collective pilot air exhaust



8985-121

Ambient temperature min./max.	-25 °C / +70 °C
Medium temperature min./max.	-25 °C / +70 °C
Medium	Compressed air
Working pressure min./max.	-0,95 bar / 16 bar
Grid dimension	22 mm
Mounting screw	with hexagon socket
Tightening torque for Mounting screw	4 Nm±0,5
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (3,5)	On the side
Direction of pneumatic port (R)	On the side
Direction of pneumatic port (X)	On the side
Exhaust (3,5)	With directional exhaust (3/5) Ports separated

Materials:

Base plate

Die-cast aluminum

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The Oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- I/O functionality by combining with contact bridge kit for additional inputs/outputs

Frame size	Compressed air connection				Weight [kg]	Part No.
	Input [1]	Exhaust [3 / 5]	Pilot control Exhaust [R]	Pilot connection [X]		
26 mm	G 3/8 3/8-18 NPTF	G 3/8 3/8-18 NPTF	G 1/8 1/8-27 NPTF	G 1/8 1/8-27 NPTF	0,147	8985121002 8985121302

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA Accessories

Supply plate, stacked longitudinally

▶ standard: ISO 15407-1 ▶ Frame size: 26 mm ▶ Type A ▶ can be assembled into blocks ▶ plate principle



00103901

Ambient temperature min./max.	-15°C / +70°C
Medium temperature min./max.	-15°C / +70°C
Medium	Compressed air
Working pressure min./max.	-0,95 bar / 16 bar
Grid dimension	28 mm
Mounting screw	with hexagon socket
Direction of pneumatic port (1)	Up
Direction of pneumatic port (3,5)	Up

Materials:

Base plate	Aluminum
Seals	Acrylonitrile butadiene rubber

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The Oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.

Frame size	Compressed air connection		Weight	Part No.
	Input	Exhaust		
	[1]	[3 / 5]	[kg]	
26 mm	G 3/8	G 3/8	0,268	1825504034
Scope of delivery incl. seal and mounting screws				

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA
Accessories

Mounting kit for DIN rails DIN

▶ Standard: ISO 15407-1 ▶ Type A ▶ Frame size:26 mm



00106828



00106797

Part No.	Frame size	Type	Weight [kg]	Delivery quantity [Piece]
1821398007	26 mm / --	Mounting kit for DIN rails EN 60715, 35x15	0,014	1

Separator

▶ Standard : ISO 15407-1 ▶ Frame size:26 mm ▶ for MS01-AL, CD01-PA



00103291



00106796

Part No.	Frame size	Type	Ambient temperature min./max.
1820220039	26 mm / --	Separator for connections 1, 3, 5	-15 / 50
1820220040	26 mm / --	For connections 12 and 14	-15 / 50

Part No.	Material	Material Seal	Weight [kg]	Note
1820220039	Aluminum	Acrylonitrile butadiene rubber	0,004	1)
1820220040	Aluminum	Acrylonitrile butadiene rubber	0,002	2)

1) Type B
2) Type A

Pressure regulator for horizontal stacking

▶ $Q_n = 2100$ l/min ▶ Base plate connection, push-in fitting ▶ Poppet valve



P575_002

Certificates

Working pressure min./max.
Ambient temperature min./max.
Medium temperature min./max.
Medium
Max. particle size
Oil content of compressed air

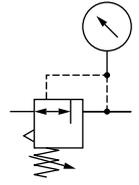
Free of substances that impair surface wetting in the coating process

2 bar / 10 bar
-15 °C / +50 °C
-15 °C / +50 °C
Compressed air
50 μ m
0 mg/m³ - 1 mg/m³

Materials:

Housing
Seals

Polyamide, fiber-glass reinforced; Polyoxymethylen
Acrylonitrile butadiene rubber

	Compressed air connection		Adjustment range min./max.	Nominal flow	Actuating element	Weight	Note	Part No.
	Input	Gauge port						
			[bar]	Q_n 1 → 2 [l/min]		[kg]		
	Base plate spezial Ø 12	Ø6x1	0,8 / 8	2100	Screw with wrench flats	0,23	1)	5750020000
					Slotted screw	0,2	2)	R412003769
1) activation with key SW 5 2) activation with screwdriver Nominal flow Q_n at 6 bar and $\Delta p = 2$ bar Scope of delivery incl. seal and mounting screws Order pressure gauge separately								

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA Accessories

Check-choke valve

▶ Qn = 680 - 810 l/min ▶ direction of throttle: 2 → 1



5341-301

Working pressure min./max. 0,5 bar / 10 bar
 Ambient temperature min./max. +0°C / +50°C
 Medium temperature min./max. +0°C / +50°C
 Medium Compressed air

Materials:
 Housing Polyamide
 Dichtung Acrylonitrile butadiene rubber

	Port 1	Port 2	Qn 2 → 1 [l/min]	Qn 1 → 2 [l/min]	Weight [kg]	Part No.
	Ø 8	Ø 8	680	810	0,045	5341300000

Pressure regulator for vertical stacking

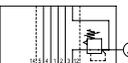
▶ Qn = 750 l/min ▶ standard: ISO 15407-1 ▶ Controlled connection: 3 ▶ Poppet valve



P575_050

Certificates Free of substances that impair surface wetting in the coating process
 Working pressure min./max. 2 bar / 10 bar
 Ambient temperature min./max. -15°C / +50°C
 Medium temperature min./max. -15°C / +50°C
 Medium Compressed air
 Max. particle size 50 µm
 Oil content of compressed air 0 mg/m³ - 1 mg/m³

Materials:
 Housing Polyamide, fiber-glass reinforced; Polyoxymethylen
 Seals Acrylonitrile butadiene rubber

	Compressed air connection		Adjustment range min./max.	Nomi- nal flow	Actuating element	Controlled connec- tion	Weight	Part No.
	Exhaust	Gauge port		Qn 1 → 2 [l/min]				
			[bar]	[l/min]			[kg]	
	Base plate DIN ISO 15407-1	Ø6x1	0,8 / 8 3 / 3	750	Screw with wrench flats -	3	0,2	5750020510 5750020520

Nominal flow with secondary pressure 6,3 bar and $\Delta p = 1$ bar
 Scope of delivery incl. seal and mounting screws
 Order pressure gauge separately

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA
Accessories

Pressure regulator for vertical stacking

▶ Qn = 750 l/min ▶ Base plate connection ▶ Controlled connection: 1 ▶ Poppet valve



P575_050

Certificates

Working pressure min./max.
Ambient temperature min./max.
Medium temperature min./max.
Medium
Max. particle size
Oil content of compressed air

Free of substances that impair surface wetting in the coating process

2 bar / 10 bar
-15 °C / +50 °C
-15 °C / +50 °C
Compressed air
50 μm
0 mg/m³ - 1 mg/m³

Materials:

Housing
Seals

Polyamide, fiber-glass reinforced; Polyoxymethylen
Acrylonitrile butadiene rubber

	Compressed air connection		Adjustment range min./max.	Nominal flow Qn 1 → 2 [l/min]	Actuating element	Controlled connection	Weight [kg]	Part No.
	Input	Gauge port						
			[bar]					
	Base plate DIN ISO 15407-1	Ø6x1	0,8 / 8	750	Screw with wrench flats	1	0,21	5750020500
			0,5 / 4		Screw with wrench flats			R412003719
			3 / 3		-			5750020530

Nominal flow with secondary pressure 6,3 bar and Δp = 1 bar
Scope of delivery incl. seal and mounting screws
Order pressure gauge separately

Throttle plate

▶ Standard: ISO 15407-1 ▶ Frame size: 26 mm



00106833

Ambient temperature min./max.
Medium temperature min./max.
Medium
Working pressure min./max.

-15 °C / +70 °C
-15 °C / +70 °C
Compressed air
0 bar / 16 bar

Materials:

Base plate
Seals

Aluminum
Acrylonitrile butadiene rubber

Frame size	Weight [kg]	Part No.
26 mm	0,17	0821201022

Scope of delivery incl. seal and mounting screws

ISO 15407-1, 26 mm, Series CD01-PA Accessories

Supply module

▶ standard: ISO 15407-1 ▶ Frame size: 26 mm ▶ Can be assembled into blocks ▶ Single base plate principle ▶ Reversed pressure supply permissible



P898_147

Ambient temperature min./max.	-15°C / +50°C
Medium temperature min./max.	-15°C / +50°C
Medium	Compressed air
Working pressure min./max.	-0,95 bar / 16 bar
Number of valve positions	1
Grid dimension	27 mm
Mounting screw	with hexagon socket
Tightening torque for mounting screw	2,5 Nm+0,25
Direction of pneumatic port (1)	On the side
Direction of pneumatic port (2,4)	Up
Exhaust (3,5)	With directional exhaust (3/5) Ports separated
Compressed air connection	according to ISO 15407-1
Materials:	
Base plate	Polyamide, fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

Frame size	Compressed air connection		Part No.
	Input	Exhaust	
	[1]	[3 / 5]	
26 mm	Ø 8x1	Ø 8x1	8985121472
Blanking plug included in scope of delivery			

Valve systems ▶ Standardized valve systems

ISO 15407-1, 26 mm, Series CD01-PA
Accessories

Blanking plate

▶ standard: ISO 15407-1 ▶ Frame size: 26 mm ▶ Can be assembled into blocks ▶ Single base plate principle ▶ Reversed pressure supply permissible



P898_149

Ambient temperature min./max.	-15°C / +50°C
Medium temperature min./max.	-15°C / +50°C
Medium	Compressed air
Working pressure min./max.	-0,95 bar / 16 bar
Number of valve positions	1
Grid dimension	27 mm
Mounting screw	with hexagon socket
Tightening torque for mounting screw	2,5 Nm+0,25
Compressed air connection	according to ISO 15407-1

Materials:	
Base plate	Polyamide, fiber-glass reinforced
Seals	Acrylonitrile butadiene rubber

Frame size	Weight	Part No.
	[kg]	
26 mm	0,088	8985121492

Pressure gauge

▶ Front port ▶ Background color: White ▶ Scale color: Black / Red ▶ Units: bar / psi



DSCN1693

Version	Bourdon tube pressure gauge
Main scale unit (outside)	bar
Secondary scale unit (inside)	psi
Ambient temperature min./max.	-15°C / +80°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Pointer color	Black
Main scale color (outside)	Black
Secondary scale color (inside)	Red

Materials:	
Housing	Polyamide

The delivered product may vary from that in the illustration.

	Compressed air connection	Nominal diameter	Application	Display range	Operating pressure	Weight	Part No.
		[mm]	[bar]	[bar]	[bar]	[kg]	
	Ø 6	28	0 - 10	0 - 10	0 / 10	0,016	3530200300
			0 - 4	0 - 4	0 / 4		R412003960

Included in the delivery contents: Straight push-in fitting, increasing (1823391628)

**ISO 15407-1, 26 mm, Series CD01-PA
Accessories**

Accessories, for HF04 series valve system

▶ D-Sub multipole plug and HAN



00112281

Part No.	Type	Weight [kg]							
8946201032	Harting plug HAN 25 D, top, 25-pin, with 5 m cable	1,878							
8946201052	Harting plug HAN 25 D, top, 25-pin, with 10 m cable	3,8							
3355140002	D-Sub plug, 37-pin, top, without cable	0,16							
8946201042	D-Sub plug, 37-pin, top, with 5 m cable	1,633							

Directional valves ▶ Electrically and pneumatically operated, according to standard

Series 581 ISO1-4
▶ ISO 5599-1

Variants

2 x 3/2- and 5/2-directional valve, single solenoid, double solenoid and 5/3-directional valve, closed center, normally open and normally closed

Single valves, 15 mm pilot valve width



Single valves, 30 mm pilot valve width



Pneumatically operated



Soft-start valve



Valve systems



Directional valves ▶ Electrically and pneumatically operated, according to standard
Series 581 ISO1-4

▶ ISO 5599-1

>> Version with CNOMO pilot valve - adjustable coil 45°

Basic valve for CNOMO pilot valve

	Type	ISO Size 1	ISO Size 2	ISO Size 3	ISO Size 4
	5/2 single solenoid	5811180000	5812180000	5813180000	5814180000
	5/2 with differential piston	5811680000	5812680000	5813680000	5814680000
	5/2 double solenoid	5811280000	5812280000	5813280000	5814280000
	5/3 closed center	5811480000	5812480000	5813480000	5814480000
	5/3 normally closed (NC)	5811580000	5812580000	5813580000	5814580000
	5/3 normally open (NO)	5811780000	5812780000	5813780000	5814780000

Poppet valve CNOMO 22x30	Part No.	Manual override	Voltage
	0820019985	without detent	without coil
	0820019980	with detent	
	0820019526	without detent	24 V DC
	0820019527		24 V AC
	0820019528		110 V AC
	0820019525		220/230 V AC
	0820019501	with detent	24 V DC
	0820019502		24 V AC
	0820019503		110 V AC
	0820019500		220/230 V AC
Pilot valve 22x30 mm	Part No.	Manual override	Voltage
Low power consumption	0820019986	without detent	without coil
	0820019981	with detent	
	0820019504	without detent	24 V DC
	0820019529	with detent	24 V DC

Coil, Series CO1 - coil width 30 mm, form A

Part No.	Voltage		
	DC	AC 50 Hz	AC 60 Hz
1824210222	12 V	24 V	24 V
1824210223	24 V	-	-
1824210221	-	110 V	110 V
1824210220	110 V	220 V	230 V

Electrical connectors, Series CN1 - ISO 4400 - form A

without cable	Voltage	Status display	Cable length	Cable exit
	1834484048	0 - 230V AC	-	angled 90°
	1834484101	24 V DC/AC		
	1834484102	110 V AC		
	1834484103	230 V AC		
With cable	Voltage	Status display	Cable length	Cable exit
	1834484160	0 - 230V DC/AC	3m	2 positions at 180°
	1834484162	24 V DC/AC		
	1834484164	230 V DC/AC		

Directional valves ▶ Electrically and pneumatically operated, according to standard
Series 581 ISO1-4

▶ ISO 5599-1

>> Version with pilot valve width 22 mm - adjustable coil 45°

Basic valve without coil - manual override: with detent

	Type	ISO Size 1	ISO Size 2	ISO Size 3	ISO Size 4
	5/2 single solenoid	5811110000	5812110000	5813110000	5814110000
	5/2 with differential piston	5811610000	5812610000	5813610000	5814610000
	5/2 double solenoid	5811220000	5812220000	5813220000	5814220000
	5/3 closed center	5811420000	5812420000	5813420000	5814420000
	5/3 normally closed (NC)	5811520000	5812520000	5813520000	5814520000
	5/3 normally open (NO)	5811720000	5812720000	5813720000	5814720000
	2 x 3/2 (The valve must be supplied with compressed air via ports 3 and 5)	R402003709	-	-	-

Coil, Series CO1 - coil width 22 mm, form B industrie

	Part No.	Voltage
	0498318800	24 V DC (Low power consumption)
	0498317502	24 V DC
	0498317006	48 V DC
	0498317707	110 V DC
	0498317103	110 V AC
	0498317804	220 V DC
	0498322506	230 V AC

Electrical connectors, Series CN1 - ISO 4400 - form B industrie

without cable		Voltage	Status display	Cable length	Cable exit
	1834484051	0 - 230V AC	-	-	angled 90°
	1834484107	24 V DC/AC	1 LED		
	1834484108	110 V AC			
	1834484109	230 V AC			
With cable		Voltage	Status display	Cable length	Cable exit
	8946201912	0 - 230V cc/ca	-	3m	0°

Throttle insert for flow control, Port 3/5

	ISO Size 1	ISO Size 2	ISO Size 3	ISO Size 4
	5811001000	5812001000	5813001000	5814001000

Directional valves ▶ Electrically and pneumatically operated, according to standard
Series 581 ISO1-4

▶ ISO 5599-1

Subbase, for direct mounting of ISO valves on cylinders

▶ standard: ISO 5599-1 ▶ Frame size: ISO 1 - ISO 2 ▶ compressed air connection output: G 1/8 - G 3/8



Frame size	Input [1]	Output [2 / 4]	Exhaust [3 / 5]	Pilot connection [X]	Part No.
ISO 1	G 1/8	G 1/8	G 1/8	G 1/8	5801690000
ISO 2	G 3/8	G 3/8	G 3/8	G 1/8	5802690000

Two different threaded banjo bolts are supplied with 5801690000 to be used with different cylinders.

Base plates ISO 5599-1

	Type	ISO Size 1	ISO Size 2	ISO Size 3	ISO Size 4
	Single subbase, thread connections on the side	1825503143	1825503146	1825503149	8985041404
	Single subbase, thread connections on the bottom	1825503201	1825503202	1825503203	8985041414
	Ports 1 - 2 / 4 - 3 / 5	G 1/4	G 3/8	G 1/2	G 3/4
	Base plate, ports 2 and 4 on bottom	1825503144	1825503147	1825503150	8985041422
	Ports 2 / 4	G 1/4	G 3/8	G 1/2	G 3/4
	End plate left, End plate right	1825503145	1825503148	1825503151	8985041442
	Ports 1 - 2 / 4 - 3 / 5	G 3/8	G 1/2	G 1	G 1
	Blanking plate	1825503282	1825503176	1825503174	-
	Blanking piece	1820220021	1820220023	1820220013	8985049042
	Subbase, for direct mounting of ISO valves on cylinders	5801690000	5802690000	-	-

Valve systems ▶ Valve systems

2x3/2-Directional valve, Series AV03

▶ Qn = 250 - 300 l/min ▶ plate connection ▶ manual override: with detent, without detent ▶ double solenoid



18437

Version	Spool valve, zero overlap
Pilot	external
Sealing principle	Soft sealing
Blocking principle	Base plate principle, multiple
Working pressure min./max.	-0,9 bar / 10 bar
Control pressure min./max.	3 bar / 8 bar
Ambient temperature min./max.	-10°C / +60°C
Medium temperature min./max.	-10°C / +60°C
Medium	Compressed air
Max. particle size	40 μm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³ with directional pilot air exhaust
Degree of protection with connection	IP65
Protective circuit	Z-diode Protected against polarity reversal
Status display LED	Yellow
Duty cycle	100 %
Switch-on time	16 ms
Switch-off time	20 ms
Mounting screw	Hexalobular socket (TORX) ISO 10664 - 8
Mounting screw tightening	0,5 Nm
Weight	See table below

	MO	Operating voltage	Power consumption	Flow conductance		Flow rate value	Weight	Part No.
				DC	24 V DC	Qn		
		[W]	[l/(s*bar)]	[kg]				
	NC/NC	24 V	0,55	0,29	1,17	300	0,05	R422102430
	NO/NO	24 V	0,55	0,38	0,92	250	0,049	R422102432
	NC/NO	24 V	0,55	0,38	0,92	250	0,05	R422102434
	NC/NC	24 V	0,55	0,29	1,17	300	0,05	R422102431
	NO/NO	24 V	0,55	0,38	0,92	250	0,049	R422102433
	NC/NO	24 V	0,55	0,38	0,92	250	0,05	R422102435

MO = Manual override
 Basic valve with pilot valve
 Seals: Acrylonitrile butadiene rubber; Hydrogenated acrylonitrile butadiene rubber
 Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Valve systems

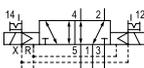
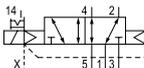
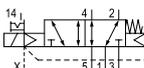
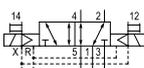
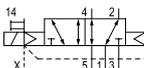
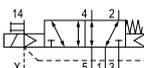
5/2-Directional valve, Series AV03

▶ Qn = 300 l/min ▶ plate connection ▶ manual override: with detent, without detent ▶ double solenoid, single solenoid



18434

Version	Spool valve, zero overlap
Pilot	external
Sealing principle	Soft sealing
Blocking principle	Base plate principle, multiple
Working pressure min./max.	-0,9 bar / 10 bar
Control pressure min./max.	3 bar / 8 bar
Ambient temperature min./max.	-10 °C / +60 °C
Medium temperature min./max.	-10 °C / +60 °C
Medium	Compressed air
Max. particle size	40 μm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³ with directional pilot air exhaust
Degree of protection with connection	IP65
Protective circuit	Z-diode Protected against polarity reversal
Status display LED	Yellow
Duty cycle	100 %
Mounting screw	Hexalobular socket (TORX) ISO 10664 - 8
Mounting screw tightening	0,5 Nm
Weight	See table below

	MO	Operating voltage	Power consumption	Flow conductance		Flow rate value	Switch-on time	Switch-off time	Weight	Part No.
				b	C					
		DC	24 V DC			Qn	t _F	t _E		
			[W]		[l/(s*bar)]	[l/min]	[ms]	[ms]	[kg]	
		24 V	0,55	0,29	1,17	300	8	8	0,048	R422102426
		24 V	0,55	0,29	1,17	300	10	17	0,045	R422102503
		24 V	0,55	0,29	1,17	300	12	17	0,043	R422102424
		24 V	0,55	0,29	1,17	300	8	8	0,048	R422102427
		24 V	0,55	0,29	1,17	300	10	17	0,045	R422102504
		24 V	0,55	0,29	1,17	300	12	17	0,043	R422102425

MO = Manual override

Basic valve with pilot valve

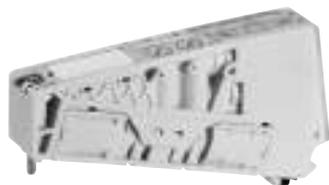
Seals: Acrylonitrile butadiene rubber; Hydrogenated acrylonitrile butadiene rubber

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Valve systems

5/3-Directional valve, Series AV03

▶ Qn = 240 l/min ▶ closed center ▶ plate connection ▶ manual override: with detent, without detent ▶ double solenoid



18436

Version	Spool valve, zero overlap
Pilot	external
Sealing principle	Soft sealing
Blocking principle	Base plate principle, multiple
Working pressure min./max.	-0,9 bar / 10 bar
Control pressure min./max.	3 bar / 8 bar
Ambient temperature min./max.	-10 °C / +60 °C
Medium temperature min./max.	-10 °C / +60 °C
Medium	Compressed air
Max. particle size	40 μm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³ with directional pilot air exhaust
Degree of protection with connection	IP65
Protective circuit	Z-diode Protected against polarity reversal
Status display LED	Yellow
Duty cycle	100 %
Switch-on time	12 ms
Switch-off time	12 ms
Mounting screw	Hexalobular socket (TORX) ISO 10664 - 8
Mounting screw tightening	0,5 Nm
Weight	0,046 kg

	MO	Operating voltage		Power consumption		Flow conductance		Flow rate value	Part No.
		DC	24 V DC	[W]	b	C	Qn		
								[l/(s*bar)]	
		24 V	0,55	0,28	1,1	240	R422102428		
		24 V	0,55	0,28	1,1	240	R422102429		

MO = Manual override
 Basic valve with pilot valve
 Seals: Acrylonitrile butadiene rubber; Hydrogenated acrylonitrile butadiene rubber
 Nominal flow Qn at 6 bar and Δp = 1 bar

Series AV03

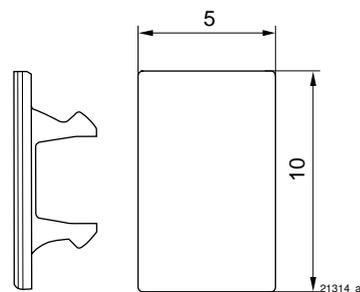
Accessories

Name plates, on the top

▶ for I/O-Module Series AES



21315_a



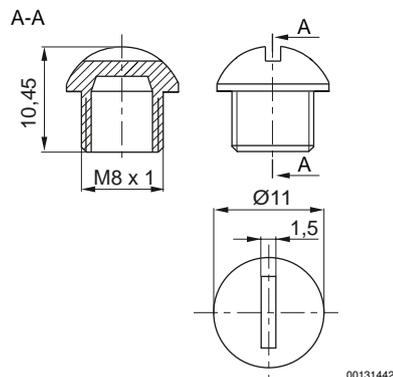
Part No.	Type	Material	Weight [kg]	Delivery quantity [Piece]			
R412018192	Name plates, on the top	Polyamide	0,014	60			

Protective cap

▶ M8x1



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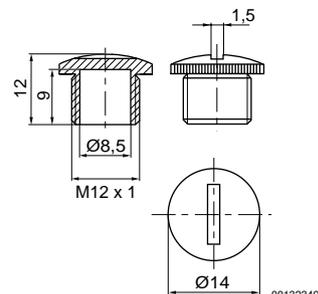
Part No.	Type	Material	Weight [kg]	Delivery quantity [Piece]			
R412003493	M8x1	Polyamide	0,014	25			

Protective cap

▶ M12x1



00120243



00132349

Part No.	Type	Material	Weight [kg]	Delivery quantity [Piece]			
1823312001	M12x1	Polyamide	0,001	50			

Valve systems ▶ Valve systems

Series AV03

Accessories

Blanking plate

- ▶ Base plate principle, multiple ▶ Reversed pressure supply permissible ▶ With collective pilot air exhaust
- ▶ for AV03



18435

Ambient temperature min./max.	-10°C / +60°C
Medium temperature min./max.	-10°C / +60°C
Medium	Compressed air
Max. particle size	40 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Working pressure min./max.	-0,9 bar / 10 bar
Protection class	IP65
Mounting screw	Hexalobular socket (TORX) ISO 10664 - 8
Tightening torque for mounting screw	0,7 Nm±0,1

Materials:

Base plate	Polyamide, fiber-glass reinforced
Seals	Nitrile Rubber
Screws	Steel, galvanized

	Weight	Part No.
	[kg]	
	0,028	R422102462
Delivery includes sealing kit and 1x Mounting screw		

Extension kit for base plate 2x

- ▶ for Series AV03



21323

Working pressure min./max.	-0,95 bar / 10 bar
Ambient temperature min./max.	-10°C / +60°C
Medium	Compressed air

Materials:

Housing	Polyamide
Seals	Nitrile Rubber

Type	Scope of delivery	Delivery quantity	Part No.
Base plate 2x for single solenoid valves for multipole plug	Base plate (1), incl. 2 nuts (2), 2 labels (3), 1 seal (4), 1 retaining clip (5), 1 tie rod extensions (6) and 1 valve driver board 2x (7)	1	R412015422
Base plate 2x for double solenoid valves for multipole plug	Base plate (1), incl. 2 nuts (2), 2 labels (3), 1 seal (4), 1 retaining clip (5), 1 Tie rod extensions (6) and 1 valve driver board 2x (7)	1	R412015423
Base plate 2x for bus coupler	Base plate (1), incl. 2 nuts (2), 2 labels (3), 1 seal (4), 1 retaining clip (5), 1 Tie rod extensions (6) and 1 valve driver board 2x (7)	1	R412018088

Series AV03

Accessories

Extension kit for base plate 3x

▶ for Series AV03

Working pressure min./max.

-0,95 bar / 10 bar

Ambient temperature min./max.

-10°C / +60°C

Medium

Compressed air

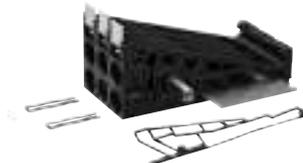
Materials:

Housing

Polyamide

Seals

Nitrile Rubber



21322

Type	Scope of delivery	Delivery quantity	Part No.
Base plate 3x for single solenoid valves for multipole plug	Base plate (1), incl. 3 nuts (2), 3 labels (3), 1 seal (4), 2 retaining clip (5), 1 tie rod extensions (6) and 1 extension circuit board (7)	1	R412018378
Base plate 3x for double solenoid valves for multipole plug	Base plate (1), incl. 3 nuts (2), 3 labels (3), 1 seal (4), 2 retaining clip (5), 1 tie rod extensions (6) and 1 extension circuit board (7)	1	R412018379
Base plate 3x for bus coupler	Base plate (1), incl. 3 nuts (2), 3 labels (3), 1 seal (4), 2 retaining clip (5), 1 tie rod extensions (6) and 1 extension circuit board (7)	1	R412018380

Valve systems ▶ Valve systems

Series AV03

Accessories

Supply plate and exhaust modules extension kit

▶ for Series AV03



21324_a

Working pressure min./max.
Ambient temperature min./max.
Medium

-0,95 bar / 10 bar
-10 °C / +60 °C
Compressed air

Materials:
Housing
Seals

Polyamide
Nitrile Rubber

	Position	Type	Scope of delivery	Delivery quantity	Valve system version	Part No.
	1	Supply plate, connection 1, internal pilot, separate pressure zones in channels 1 / 3 / 5 / X / R	-	1	Field bus	R412018347
	1	Supply plate, connection 1, external pilot, separate pressure zones in channels 1 / 3 / 5 / X / R	-	1	Field bus	R412018348
	1	Supply plate, connection 1, no pressure zones	-	1	Field bus	R412018337
	1	Supply plate, connection 1, separate pressure zones in channels 1 / 3 / 5	-	1	Field bus	R412018613
	1	Supply plate, connection 1, separate pressure zones in channels 1	-	1	Field bus	R412018614
	1	Supply plate, connection 1, separate pressure zones in channels 3 / 5	-	1	Field bus	R412018615
	2	Exhaust module 3, 5 and R with flat silencer				R412018331
		Exhaust module with restricted exhaust 3 and 5	Exhaust module: incl. 1 mounting screw, push-in fitting Ø 8 mm	1	-	R412018332
		Exhaust module with separate restricted exhaust for 3 and 5	Exhaust module: incl. 1 mounting screw, push-in fitting Ø 8 mm			R412018333

Series AV03
Accessories
End plate left

▶ Connection on the top or connection on side ▶ for AV03



15851

Ambient temperature min./max. -10°C / +50°C

Medium temperature min./max. -10°C / +50°C

Materials:

Housing Polyamide

Screws Steel

Type	Delivery quantity	Weight	Part No.
		[kg]	
Connection on the top	1	0,045	R412018334
Connection on side	1	0,05	R412018335

Scope of delivery: inkl. 1 Seal and 2 Mounting screw

End plate right

▶ for AV03



19895

Ambient temperature min./max. -10°C / +50°C

Medium temperature min./max. -10°C / +50°C

Materials:

Housing Aluminum

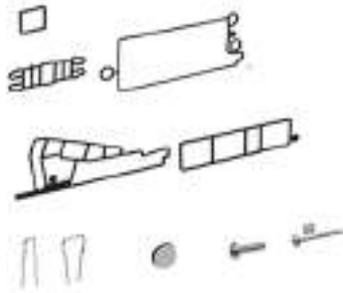
Screws Steel

Compressed air connection	Delivery quantity	Weight	Part No.
		[kg]	
Pilot control exhaust			
[12]			
Ø 4	1	0,08	R412018349
-	1	0,08	R412018350

Scope of delivery: inkl. mounting screw

Series AV03
Accessories

Accessories
▶ for Series AV03



19866

Ambient temperature min./max.
Medium

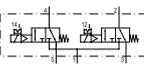
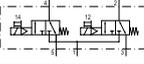
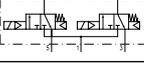
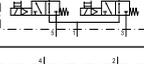
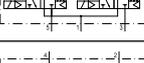
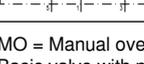
-10°C / +50°C
Compressed air

Position	Type	Delivery quantity	Part No.
1	Valve seals	10	R412018338
2	Seals left end plate	10	R412018344
3	Seals for base plate	10	R412018345
4	Seals for function modules	10	R412018346
5	Retaining clip for supply plate	10	R412018746
6	Retaining clip for base plate	10	R412018747
7	Sealing cap for right end plate	5	R412018351
8	Screws for left end plate	10	R412015467
9	Mounting screw for valve	10	R412018336

Valve systems ▶ Valve systems
2x3/2-Directional valve, Series AV05
▶ plate connection ▶ manual override: with detent, without detent ▶ double solenoid


23145

Version	Spool valve, zero overlap
Pilot	external
Sealing principle	Soft sealing
Blocking principle	Base plate principle, multiple
Working pressure min./max.	-0,9 bar / 10 bar
Control pressure min./max.	3 bar / 8 bar
Ambient temperature min./max.	-10 °C / +60 °C
Medium temperature min./max.	-10 °C / +60 °C
Medium	Compressed air
Max. particle size	40 μm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³ with collective pilot air exhaust
Degree of protection with connection	IP65
Status display LED	Yellow
Duty cycle	100 %
Mounting screw	Hexalobular socket (TORX) ISO 10664 - 8
Mounting screw tightening	0,5 Nm
Tolerance tightening torque	±0,1
Weight	See table below

	MO	Operating voltage	Power consumption	Flow conductance		Switch-on time	Switch-off time	Weight	Part No.		
				DC	24 V DC					b	C
					[W]						[l/(s*bar)]
	NC/NC		24 V	0,55	0,38	2,46	16	25	0,066	R422103006	
	NC/NC		24 V	0,55	0,38	2,46	16	25	0,066	R422103007	
	NC/NC	-	24 V	0,55	0,38	2,46	16	25	0,066	R422103080	
	NO/NO		24 V	0,55	0,45	2,07	16	25	0,064	R422103008	
	NO/NO		24 V	0,55	0,45	2,07	16	25	0,064	R422103009	
	NO/NO	-	24 V	0,55	0,45	2,07	16	25	0,064	R422103081	
	NC/NO		24 V	0,55	0,45	2,07	16	25	0,065	R422103010	
	NC/NO		24 V	0,55	0,45	2,07	16	25	0,065	R422103011	
	NC/NO	-	24 V	0,55	0,45	2,07	16	25	0,065	R422103082	

MO = Manual override

Basic valve with pilot valve

Seals: Acrylonitrile butadiene rubber; Hydrogenated acrylonitrile butadiene rubber

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Valve systems

5/2-Directional valve, Series AV05

▶ plate connection ▶ manual override: with detent, without detent ▶ single solenoid, double solenoid



23145

Version	Spool valve, zero overlap
Pilot	external
Sealing principle	Soft sealing
Blocking principle	Base plate principle, multiple
Working pressure min./max.	-0,9 bar / 10 bar
Control pressure min./max.	3 bar / 8 bar
Ambient temperature min./max.	-10 °C / +60 °C
Medium temperature min./max.	-10 °C / +60 °C
Medium	Compressed air
Max. particle size	40 μm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³ with collective pilot air exhaust
Degree of protection with connection	IP65
Status display LED	Yellow
Duty cycle	100 %
Mounting screw	Hexalobular socket (TORX) ISO 10664 - 8
Mounting screw tightening	0,5 Nm
Tolerance tightening torque	±0,1
Weight	See table below

	MO	Operating voltage	Power consumption	Flow conductance		Switch-on time	Switch-off time	Weight	Part No.		
				24 V DC	24 V DC					b	C
		24 V	0,55	0,38	2,54	17	26	0,058	R422103000		
		24 V	0,55	0,38	2,54	17	26	0,058	R422103001		
	-	24 V	0,55	0,38	2,54	17	26	0,058	R422103077		
		24 V	0,55	0,38	2,54	16	22	0,061	R422103012		
		24 V	0,55	0,38	2,54	16	22	0,061	R422103013		
	-	24 V	0,55	0,38	2,54	16	22	0,061	R422103083		
		24 V	0,55	0,38	2,54	13	13	0,064	R422103002		
		24 V	0,55	0,38	2,54	13	13	0,064	R422103003		
	-	24 V	0,55	0,38	2,54	13	13	0,064	R422103078		

MO = Manual override
 Basic valve with pilot valve
 Seals: Acrylonitrile butadiene rubber; Hydrogenated acrylonitrile butadiene rubber
 Nominal flow Q_n at 6 bar and Δp = 1 bar

Valve systems ▶ Valve systems

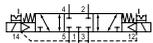
5/3-Directional valve, Series AV05

▶ plate connection ▶ manual override: with detent, without detent, without ▶ double solenoid



23145

Version	Spool valve, zero overlap
Pilot	external
Sealing principle	Soft sealing
Blocking principle	Base plate principle, multiple
Working pressure min./max.	-0,9 bar / 10 bar
Control pressure min./max.	3 bar / 8 bar
Ambient temperature min./max.	-10 °C / +60 °C
Medium temperature min./max.	-10 °C / +60 °C
Medium	Compressed air
Max. particle size	40 µm
Oil content of compressed air	0 mg/m ³ - 5 mg/m ³ with collective pilot air exhaust
Degree of protection with connection	IP65
Status display LED	Yellow
Duty cycle	100 %
Switch-on time	13 ms
Switch-off time	13 ms
Mounting screw	Hexalobular socket (TORX) ISO 10664 - 8
Mounting screw tightening	0,5 Nm
Tolerance Tightening torque	±0,1
Weight	0,062 kg

	MO	Operating voltage		Power consumption		Flow conductance		Part No.
		DC	24 V DC	b	C			
						[W]	[l/(s*bar)]	
		24 V	0,55	0,37	2,49	R422103004		
		24 V	0,55	0,37	2,49	R422103005		
	-	24 V	0,55	0,37	2,49	R422103079		

MO = Manual override

Basic valve with pilot valve

Seals: Acrylonitrile butadiene rubber; Hydrogenated acrylonitrile butadiene rubber

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Valve systems

Series AV03/AV05
Accessories

AES field bus connection

▶ Bus coupler ▶ Field bus connection with I/O functionality ▶ Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / EtherNET/IP / PROFINET IO / EtherCAT / POWERLINK



16456

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power consumption electronics	0,1 A
Operating voltage actuators	24 V DC
Total current for actuators	4 A
Cycle time 256 bit	< 1 ms
Number of solenoid coils max.	128
Number of valve positions	64
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
I/O module extension max.	10
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest Aventics sales office.
- Voltage and short-circuit monitoring per LED.
- During cyclical data transfer, the bus coupler can send 512 bits of input data to the controller and receive 512 bits of output data from the controller.

Field bus Protocol	Port	Port	Power supply	Weight [kg]	Part No.
PROFIBUS DP	Plug (male), M12, 5-pin, B-coded	Socket (female), M12, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded	0,16	R412018218
CANopen	Plug (male), M12, 5-pin, A-coded	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded	0,16	R412018220
DeviceNet	Plug (male), M12, 5-pin, A-coded	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded	0,16	R412018221
EtherNET/IP	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0,175	R412018222
PROFINET IO	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0,175	R412018223
EtherCAT	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0,175	R412018225
POWERLINK	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0,175	R412018226

Scope of delivery: incl. mounting screw 3x

Series AV03/AV05
Accessories

Stand -Alone Variant AES

▶ Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / PROFINET IO / EtherCAT / EtherNET/IP / POWERLINK



21399

Ambient temperature min./max.	-10 °C / +60 °C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power consumption electronics	0,1 A
Operating voltage actuators	24 V DC
Connection Power supply	M12, A-coded, 4-pin
Total current for actuators	4 A
Cycle time 256 bit	< 1 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

An example configuration is illustrated. The delivered product may thus deviate from the illustration.

Technical Remarks

- The maximum number of IO modules is 10.

Configurable product


This product is configurable. Please use the Internalet configurator or contact the nearest AVENTICS sales office.

Valve systems ▶ Valve systems

Series AV03/AV05
Accessories

AES field bus connection

▶ I/O module version ▶ digital inputs/outputs M8x1, 3-pin



21397

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Current per channel max.	0,5 A
Total current for actuators	4 A
Total current of sensors max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest Aventics sales office.
- The total current of all outputs (including valves) must not exceed 4 A in the overall system.
- Voltage and short-circuit monitoring per LED.

for Type	Port	Power supply	Number of Inputs	Number of Outputs	I/O module version	Weight	Note	Part No.
						[kg]		
8DI8M8	Socket (female), M8x1, 3-pin	internal	8	-	inputs digital	0,11	-	R412018233
8DO8M8	Socket (female), M8x1, 3-pin	internal	-	8	outputs digital	0,11	-	R412018248
8DIDO8M8	Socket (female), M8x1, 3-pin	internal	8	8	inputs digital outputs digital combination module	0,11	1)	R412018269

1) Function specification for fieldbus configuration..
Scope of delivery: incl. 2 spring clamp elements and seal

Series AV03/AV05
Accessories
AES field bus connection
► I/O module version ► digital inputs/outputs M12x1, 5-pin


21351

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power supply for actuators	8x0,5 A
Current per channel max.	0,5 A
Total current for actuators	4 A
Total current of sensors max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

Technical Remarks

- You will find assignment schemes for the product in the operating instructions, or contact the nearest Aventics sales office.
- The total current of all outputs (including valves) must not exceed 4 A in the overall system.
- Voltage and short-circuit monitoring per LED.

for Type	Port	Power supply	Number of Inputs	Number of Outputs	I/O module version	Weight [kg]	Note	Part No.
8DI4M12	Socket (female), M12x1, 5-pin	internal	8	-	Inputs digital	0,11	-	R412018235
8DO4M12	Socket (female), M12x1, 5-pin	internal	-	8	Outputs digital	0,11	-	R412018250
8DIDO4M12	Socket (female), M12x1, 5-pin	internal	8	8	Inputs digital Outputs digital Combination module	0,11	1)	R412018270

1) Function specification for fieldbus configuration.
Scope of delivery: incl. 2 spring clamp elements and seal

Valve systems ▶ Valve systems

Series AV03/AV05 Accessories

AES field bus connection

▶ I/O module version ▶ digital inputs/outputs M12x1, 8-pin



22817

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Current per channel max.	0,5 A
Total current for actuators	4 A
Total current of sensors max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Materials:

Housing Polyamide, fiber-glass reinforced

for Type	Port	Power supply	Number of Inputs	Number of Outputs	I/O module version	Weight [kg]	Part No.
16DI4M12	Socket (female), M12, 8-pin	internal	16	-	inputs digital	0,11	R412018243
16DO4M12	Socket (female), M12, 8-pin	internal	-	16	outputs digital	0,11	R412018263

Scope of delivery: incl. 2 spring clamp elements and seal

AES field bus connection

▶ I/O module version ▶ digital outputs D-Sub, 25-pin



23123

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Current per channel max.	0,5 A
Total current for actuators	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
Number of Outputs	24
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Materials:

Housing Polyamide, fiber-glass reinforced

for Type	Port	Power supply	Weight [kg]	Part No.
24DO1DSUB25	socket, D-Sub, 25-pin	internal	0,115	R412018254

Scope of delivery: incl. 2 spring clamp elements and seal

Valve systems ▶ Valve systems
Series AV03/AV05
Accessories
AES field bus connection
▶ I/O module version ▶ spring clamp connections (IP20) ▶ digital inputs


23388

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP20
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Current per channel max.	0,5 A
Total current of sensors max.	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Materials:

Housing	Polyamide, fiber-glass reinforced
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for Type	Port	Power supply	Number of Inputs	I/O module version	Weight	Part No.
					[kg]	
16DI48SC	Spring clamp connections, 48x	internal	16	Inputs digital	0,115	R412018242

Scope of delivery: incl. 2 Spring clamp elements and Seal

AES field bus connection
▶ I/O module version ▶ spring clamp connections (IP20) ▶ digital outputs


23387

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP20
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Current per channel max.	0,5 A
Total current for actuators	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Materials:

Housing	Polyamide, fiber-glass reinforced
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for Type	Port	Power supply	Number of Outputs	I/O module version	Weight	Part No.
					[kg]	
16DO32SC	spring clamp connections, 32x	internal	16	outputs digital	0,115	R412018252

Scope of delivery: incl. 2 spring clamp elements and seal

Valve systems ▶ Valve systems

Series AV03/AV05
Accessories

AES field bus connection

▶ I/O module version ▶ analog combination module with two M12x1 connections for E/P pressure control valves with external supply



23136

Ambient temperature min./max.	-10 °C / +60 °C
Protection class	IP65
Operating voltage electronics	24 V DC
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Materials:	
Housing	Polyamide, fiber-glass reinforced

for Type	Port	Power supply	Number of Inputs	Number of Outputs	I/O module version	Inputs analog	Part No.
2AI2AO2M12-AE	Socket (female), M12x1, 5-pin	Plug (male), M12, 4-pin, A-coded	2	2	inputs analog outputs analog	0 - 10 V / ± 10 V 2 - 10 V / ± 10 V 0 - 20 mA / ± 20 mA 4 - 20 mA / ± 20 mA	R412018287
Part No.	Outputs analog		Weight		Note		
				[kg]			
R412018287	0 - 10 V / ± 10 V 0 - 20 mA 4 - 20 mA		0,11		1)		

1) freely selectable signals, onfigurable
Scope of delivery: incl. 2 spring clamp elements and seal

Series AV03/AV05
Accessories
AES field bus connection
► I/O module version ► analog inputs/outputs M12x1, 5-pin


23380

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Current per channel max.	0,5 A
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Materials:

Housing Polyamide, fiber-glass reinforced

for Type	Port	Power supply	Number of Inputs	Number of Outputs	Inputs analog	Outputs analog	Weight	Note	Part No.
							[kg]		
2AI2M12-E	Socket (female), M12, 5-pin	internal	2	-	0 - 10 V / ± 10 V 2 - 10 V / ± 10 V 0 - 20 mA / ± 20 mA 4 - 20 mA / ± 20 mA	-	0,11	1)	R412018277
2AO2M12-E	Socket (female), M12, 5-pin	internal	-	2	-	0 - 10 V / ± 10 V 0 - 20 mA 4 - 20 mA	0,11	1)	R412018281

1) freely selectable signals, configurable

Scope of delivery: incl. 2 spring clamp elements and seal

Valve systems ▶ Valve systems

Series AV05

Accessories

Blanking plate

- ▶ Base plate principle, multiple ▶ reversed pressure supply permissible ▶ with collective pilot air exhaust
- ▶ for AV05



23144

Ambient temperature min./max.	-10 °C / +60 °C
Medium temperature min./max.	-10 °C / +60 °C
Medium	Compressed air
Max. particle size	40 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Working pressure min./max.	-0,9 bar / 10 bar
Protection class	IP65
Mounting screw	Hexalobular socket (TORX) ISO 10664 - 8
Tightening torque for mounting screw	0,5 Nm±0,1
Materials:	
Base plate	Polyamide, fiber-glass reinforced
Seals	Nitrile Rubber
Screws	Steel, galvanized

Delivery quantity	Weight [kg]	Part No.
1	0,03	R422102526
Delivery includes sealing kit and 1x mounting screw		

Extension kit for base plate 2x

- ▶ for Series AV05



23147

Working pressure min./max.	-0,95 bar / 10 bar
Ambient temperature min./max.	-10 °C / +60 °C
Medium	Compressed air
Materials:	
Housing	Polyamide, fiber-glass reinforced
Seals	Nitrile Rubber

Type	Scope of delivery	Delivery quantity	Part No.
Base plate 2x for single solenoid valves for multipole plug	Base plate (1), incl. 2 nuts (2), 2 labels (3), 1 Seal (4), 1 retaining clip (5), 2 tie rod extensions (6) and 1 extension circuit board (7)	1	R412020064
Base plate 2x for double solenoid valves for multipole plug	Base plate (1), incl. 2 nuts (2), 2 labels (3), 1 Seal (4), 1 retaining clip (5), 2 tie rod extensions (6) and 1 extension circuit board (7)	1	R412020065
Base plate 2x for bus coupler	Base plate (1), incl. 2 nuts (2), 2 labels (3), 1 seal (4), 1 retaining clip (5), 2 tie rod extensions (6) and 1 extension circuit board (7)	1	R412020068

Series AV05

Accessories

Extension kit for base plate 3x

▶ for Series AV05



Working pressure min./max.

-0,95 bar / 10 bar

Ambient temperature min./max.

-10 °C / +60 °C

Medium

Compressed air

Materials:

Housing

Polyamide, fiber-glass reinforced

Seals

Nitrile Rubber

23148

Type	Scope of delivery	Delivery quantity	Part No.
Base plate 3x for bus coupler	Base plate (1), incl. 3 nuts (2), 3 labels (3), 1 seal (4), 2 retaining clip (5), 2 tie rod extensions (6) and 1 extension circuit board (7)	1	R412020069
Base plate 3x for single solenoid valves for multipole plug	Base plate (1), incl. 3 nuts (2), 3 labels (3), 1 seal (4), 2 retaining clip (5), 2 tie rod extensions (6) and 1 extension circuit board (7)	1	R412020066
Base plate 3x for double solenoid valves for multipole plug	Base plate (1), incl. 3 nuts (2), 3 labels (3), 1 seal (4), 2 retaining clip (5), 2 tie rod extensions (6) and 1 extension circuit board (7)	1	R412020067

Valve systems ▶ Valve systems

Series AV05
Accessories

Supply plate and exhaust modules extension kit
▶ for Series AV05



23154_a

Working pressure min./max.
Ambient temperature min./max.
Medium

-0,95 bar / 10 bar
-10 °C / +60 °C
Compressed air

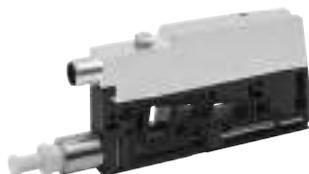
Materials:
Housing
Seals

Polyamide, fiber-glass reinforced
Nitrile Rubber

	Position	Type	Scope of delivery	Delivery quantity	Valve system version	Part No.
	1	Supply plate, connection 1, no pressure zones	Base plate, incl. 1 nut, 2 seals, 1 retaining clip, 2 screws, 2 tie rod extensions, 1 push-in fitting Ø 12 mm, straight and 1 extension circuit board	1	Field bus	R412020070
	1	Supply plate, connection 1, separate pressure zones in channels 1 / 3 / 5	Base plate, incl. 1 nut, 2 seals, 1 retaining clip, 2 screws, 2 tie rod extensions, 1 push-in fitting Ø 12 mm, straight and 1 extension circuit board	1	Field bus	R412020071
	1	Supply plate, connection 1, separate pressure zones in channels 1	Base plate, incl. 1 nut, 2 seals, 1 retaining clip, 2 screws, 2 tie rod extensions, 1 push-in fitting Ø 12 mm, straight and 1 extension circuit board	1	Field bus	R412020072
	1	Supply plate, connection 1, separate pressure zones in channels 3 / 5	Base plate, incl. 1 nut, 2 seals, 1 retaining clip, 2 screws, 2 tie rod extensions, 1 push-in fitting Ø 12 mm, straight and 1 extension circuit board	1	Field bus	R412020073
	2	Exhaust module 3, 5 and R with flat silencer	Exhaust module: incl. 1 seal, 1 mounting screw	1	-	R412020087
		Exhaust module with restricted exhaust 3 and 5	Exhaust module: incl. 1 mounting screw, push-in fitting Ø 12 mm			R412020088
		Exhaust module with separate restricted exhaust for 3 and 5	Exhaust module: incl. 1 mounting screw, push-in fitting Ø 12 mm			R412020089

Series AV05
Accessories
Electrical supply plate

▶ for AV05, AES



23392

Ambient temperature min./max.	-10°C / +60°C
Medium temperature min./max.	-10°C / +60°C
Connection power supply	M12, 4-pin, A-coded
Power consumption max.	2 A
Protection class	IP65

Materials:	
Housing	Polyamide; Aluminum
Seals	Nitrile Rubber

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The Oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Please note that the supply plate may only be used in conjunction with AES series fieldbus modules.

	Scope of delivery	Operating voltage DC	Voltage tolerance DC	Delivery quantity	Weight	Part No.
		[V]			[kg]	
	1 seal, 2 tie rods or 2 flat-head screws for extension	24 V	-10% / +10%	1	0,157	R412021778

Valve systems ▶ Valve systems

Series AV05
 Accessories

AV03/AV05 combination plate


Ambient temperature min./max.
 Medium
 Working pressure min./max.

-10 °C / +60 °C
 Compressed air
 -0,95 bar / 10 bar

Materials:
 Housing
 Base plate
 Seals

Polyamide, fiber-glass reinforced
 Polyamide
 Nitrile Rubber

23180

	Position	Type	Scope of delivery	Delivery quantity	Valve system version	Part No.
	1	Supply plate, connection 1, no pressure zones	Combination module, connection 1, no pressure zones	1	Multipole	R412021777
					Field bus	R412021780
	1	Supply plate, connection 1, separate pressure zones in channels 1 / 3 / 5	Combination module, Connection 1, separate pressure zones in channels 1 / 3 / 5	1	Multipole	R412021776
					Field bus	R412021779
	2	Exhaust module 3, 5 and R with flat silencer	Exhaust module: incl. 1 Seal, 1 mounting screw	1	-	R412020087
		Exhaust module with restricted exhaust 3 and 5	Exhaust module: incl. 1 mounting screw, mounting screw Ø 12 mm			R412020088
		Exhaust module with separate restricted exhaust for 3 and 5	Exhaust module: incl. 1 mounting screw, mounting screw Ø 12 mm			R412020089

Valve systems ▶ Valve systems
Series AV05
Accessories
End plate right

▶ for AV05

Ambient temperature min./max.

-10°C / +60°C

Materials:

Housing

Polyamide, fiber-glass reinforced

Screws

Steel



23160

	Pilot control Exhaust	Pilot connection	Pilot	Delivery quantity	Weight	Part No.
	[R]	[X]			[kg]	
	Ø 6	Ø 6	internal	1	0,08	R412020078
	Ø 6	Ø 6	external	1	0,08	R412020079

Scope of delivery: incl. 1 extension circuit board, 2 seals and 2 screws

End plate left

▶ for AV05

Ambient temperature min./max.

-10°C / +60°C

Medium temperature min./max.

-10°C / +60°C

Materials:

Housing

Polyamide, fiber-glass reinforced

Screws

Steel



23229

Type	Delivery quantity	Weight	Part No.
		[kg]	
Connection on the top	1	0,045	R412020076
Connection on side	1	0,05	R412020077

Scope of delivery: incl. 1 seal and 2 mounting screw

Valve systems ▶ Valve systems

Series AV05 Accessories

Push-in fittings ▶ for AV



19866_a

Ambient temperature min./max.
Working pressure min./max.
Medium

-10°C / +60°C
0,9 bar / 10 bar
Compressed air

Materials:
Housing
Seal

Polyamide, fiber-glass reinforced
Nitrile Rubber

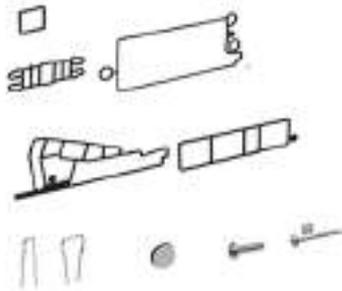
Part No.	For series	Type	Delivery quantity [Piece]	Note		
R412018621	AV03 , AV05	Push-in fitting Ø 3 mm, angled short and push-in fitting Ø 3 mm, angled long	1	-		
R412018622	AV03 , AV05	Push-in fitting Ø 4 mm - 5/32" angled short and push-in fitting Ø 4 mm - 5/32" angled long	1	-		
R412018623	AV03 , AV05	Push-in fitting Ø 6 mm, angled short push-in fitting Ø 6 mm, angled long	1	-		
R422002944	AV03 , AV05	Push-in fitting Ø 8 mm, angled short push-in fitting Ø 8 mm, angled long	1	-		
R412021785	AV03 , AV05	Push-in fitting 1/8", straight	2	-		
R412018617	AV03 , AV05	Push-in fitting Ø 4 mm - 5/32" straight	2	-		
R412018618	AV03 , AV05	Push-in fitting Ø 6 mm, straight	2	-		
R412018619	AV03 , AV05	Push-in fitting Ø 8 mm - 5/16" straight	2	-		
R412018620	AV03 , AV05	Push-in fitting 1/4", straight	2	-		
R412021786	AV03 , AV05	Push-in fitting 1/8", straight	10	-		
R422102508	AV05	Push-in fitting Ø 12 mm, straight	2	1)		
R422002561	AV03	Push-in fitting Ø 3 mm, angled short	10	-		
R422002569	AV03	Plug connector Ø 3 mm, angled long	10	-		
R422002559	AV05	Push-in fitting Ø 12 mm, straight	10	1)		
R422002560	AV05	Push-in fitting 3/8", straight	10	-		
R412021786	AV03 , AV05	Push-in fitting 1/8", straight	10	-		
R422002554	AV03 , AV05	Push-in fitting Ø 4 mm - 5/32" straight	10	-		
R422002562	AV03 , AV05	Push-in fitting Ø 4 mm, 5/32", angled short	10	-		
R422002570	AV03 , AV05	Push-in fitting Ø 4 mm, 5/32", angled long	10	-		
R422002555	AV03 , AV05	Push-in fitting Ø 6 mm, straight	10	-		
R422002563	AV03 , AV05	Push-in fitting Ø 6 mm, angled short	10	-		
R422002571	AV03 , AV05	Push-in fitting Ø 6 mm, angled long	10	-		
R422002556	AV03 , AV05	Push-in fitting 1/4", straight	10	-		
R422002557	AV03 , AV05	Push-in fitting Ø 8 mm, 5/16", straight	10	-		
R422002565	AV03 , AV05	Push-in fitting Ø 8 mm, 5/16", angled short	10	-		
R422002573	AV03 , AV05	Push-in fitting Ø 8 mm, 5/16", angled long	10	-		

1) only for AV05 air connection, Connection 1

Series AV05
 Accessories

Accessories

 ▶ for Series AV05


 Ambient temperature min./max.
 Medium

 -10°C / +50°C
 Compressed air

19866

Position	Type	Delivery quantity	Part No.
1	Valve seals	10	R412020084
2	Seals left end plate	10	R412020080
3	Seals for base plate	10	R412020082
4	Seals for function modules	10	R412020081
5	Retaining clip for supply plate	10	R412020075
6	Retaining clip for Base plate	10	R412018747
7	Sealing cap for right end plate	5	R412018351
8	Screws for left end plate	10	R412015467
9	Mounting screw for valve	10	R412018336

Valve systems► Link structure AES

AES fieldbus connection

► Bus coupler ► Field bus connection with I/O functionality ► Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / PROFINET IO / EtherCAT / EtherNET/IP / POWERLINK



16456

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power consumption electronics	0,1 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Cycle time at 256 bits	< 1 ms
Number of solenoid coils max.	128
Number of valve positions	64
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
I/O module extension max.	10
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Field bus protocol	Port	Port	Power supply	Weight	Part No.
				[kg]	
PROFIBUS DP	Plug (male), M12, 5-pin, B-coded	Socket (female), M12, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded	0,16	R412018218
CANopen	Plug (male), M12, 5-pin, A-coded	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded	0,16	R412018220
DeviceNet	Plug (male), M12, 5-pin, A-coded	Socket (female), M12, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded	0,16	R412018221
PROFINET IO	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0,175	R412018223
EtherCAT	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0,175	R412018225
EtherNET/IP	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0,175	R412018222
POWERLINK	Socket (female), M12, 4-pin, D-coded	Socket (female), M12, 4-pin, D-coded	Plug (male), M12, 4-pin, A-coded	0,175	R412018226

Scope of delivery: Incl. mounting screws 3x

Valve systems ▶ Link structure AES
Stand-Alone Variant AES
▶ Field bus protocol: PROFIBUS DP / CANopen / DeviceNet / PROFINET IO / EtherCAT / EtherNET/IP / POWERLINK


21399

Ambient temperature min./max.	-10 °C / +60 °C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power consumption electronics	0,1 A
Operating voltage, actuators	24 V DC
Port Power supply	M12, A-coded, 4-pin
Total current for actuators	4 A
Cycle time at 256 bits	< 1 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

Configurable product


This product is configurable. Please use the Internalet configurator or contact the nearest AVENTICS sales office.

AES fieldbus connection
▶ I/O module version ▶ M8x1 digital inputs/outputs, 3-pin


21397

Ambient temperature min./max.	-10 °C / +60 °C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel.	0,5 A
Total current for actuators	4 A
Total current of sensors max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

for Type	Port	Power supply	Number of inputs	Number of outputs	I/O module version	Weight	Note	Part No.
						[kg]		
8DI8M8	socket (female), M8x1, 3-pin	internal	8	-	digital input	0,11	-	R412018233
8DO8M8	socket (female), M8x1, 3-pin	internal	-	8	digital output	0,11	-	R412018248
8DIDO8M8	socket (female), M8x1, 3-pin	internal	8	8	digital input digital output combination module	0,11	1)	R412018269

1) Function specification for fieldbus configuration.

Delivery contents: incl. 2 spring clamp elements and seal

Valve systems ▶ Link structure AES

AES fieldbus connection

▶ I/O module version ▶ digital inputs/outputs, M12x1, 5-pin



21351

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Power supply for actuators	8x0,5 A
Max. current per channel	0,5 A
Total current for actuators	4 A
Total current of sensors max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

for Type	Port	Power supply	Number of inputs	Number of output	I/O module version	Weight [kg]	Note	Part No.
8DI4M12	Socket (female), M12x1, 5-pin	internal	8	-	Digital input	0,11	-	R412018235
8DO4M12	Socket (female), M12x1, 5-pin	internal	-	8	Digital output	0,11	-	R412018250
8DIDO4M12	Socket (female), M12x1, 5-pin	internal	8	8	Digital input Digital output Combination module	0,11	1)	R412018270

1) Function specification for fieldbus configuration.
Delivery contents: incl. 2 spring clamp elements and seal

AES fieldbus connection

▶ I/O module version ▶ M12x1 digital input/output, 8-pin



22817

Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Max. current per channel	0,5 A
Total current for actuators	4 A
Total current of sensors max.	1 A
Filter time	3 ms
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

for Type	Port	Power supply	Number of input	Number of output	I/O module version	Weight [kg]	Part No.
16DI4M12	Socket (female), M12, 8-pin	internal	16	-	Digital input	0,11	R412018243
16DO4M12	Socket (female), M12, 8-pin	internal	-	16	Digital output	0,11	R412018263

Delivery contents: incl. 2 spring clamp elements and seal

Valve systems ▶ Link structure AES
AES fieldbus connection
▶ I/O module version ▶ digital outputs D-Sub, 25-pin


23123

Ambient temperature min./max.	-10 °C / +60 °C
Protection class	IP65
Operating voltage electronics	24 V DC
Max. current per channel.	0,5 A
Total current for actuators	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit Undervoltage
Number of outputs	24
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

for Type	Port	Power supply	Weight	Part No.
			[kg]	
24DO1DSUB25	socket, D-Sub, 25-pin	internal	0,115	R412018254

Delivery contents: incl. 2 spring clamp elements and seal

AES fieldbus connection
▶ I/O module version ▶ spring clamp connections (IP20) ▶ digital inputs


23388

Ambient temperature min./max.	-10 °C / +60 °C
Protection class	IP20
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel.	0,5 A
Total current of sensors max.	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

for Type	Port	Power supply	Number of inputs	I/O module version	Weight	Part No.
					[kg]	
16DI48SC	spring clamp connections, 48x	internal	16	digital inputs	0,115	R412018242

Delivery contents: incl. 2 spring clamp elements and seal

Valve systems ▶ Link structure AES

AES fieldbus connection

▶ I/O module version ▶ spring clamp connections (IP20) ▶ digital output



23387

Ambient temperature min./max.	-10 °C / +60 °C
Protection class	IP20
Operating voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Max. current per channel.	0,5 A
Total current for actuators	4 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

for Type	Port	Power supply	Number of output	I/O module version	Weight [kg]	Part No.
16DO32SC	spring clamp connections, 32x	internal	16	digital output	0,115	R412018252

Delivery contents: incl. 2 spring clamp elements and seal

Valve systems ▶ Link structure AES

AES fieldbus connection

▶ I/O module version ▶ analog combination module with two M12x1 connections for E/P pressure control valves with external supply



23136

Ambient temperature min./max.	-10 °C / +60 °C
Protection class	IP65
Operating voltage electronics	24 V DC
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

for Type	Port	Power supply	Number of input	Number of output	I/O module version	Analog input	Part No.
2AI2AO2M12-AE	socket (female), M12x1, 5-pin	plug (male), M12, 4-pin, A-coded	2	2	analog input analog output	0 - 10 V / ± 10 V 2 - 10 V / ± 10 V 0 - 20 mA / ± 20 mA 4 - 20 mA / ± 20 mA	R412018287

Part No.	Analog output	Weight [kg]	Note
R412018287	0 - 10 V / ± 10 V 0 - 20 mA 4 - 20 mA	0,11	1)

1) freely selectable signals, configurable

Delivery contents: incl. 2 spring clamp elements and seal

AES fieldbus connection

> I/O module version > > I/O module version > analog inputs/outputs, M12x1, 5-pin



Ambient temperature min./max.	-10°C / +60°C
Protection class	IP65
Operating voltage electronics	24 V DC
Max. current per channel.	0,5 A
Diagnosis	Short circuit Undervoltage
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2

23380

for Type	Port	Power supply	Number of inputs	Number of outputs	Analog inputs	Analog outputs	Weight	Note	Part No.
							[kg]		
2AI2M12-E	socket (female), M12, 5-pin	internal	2	-	0 - 10 V / ± 10 V 2 - 10 V / ± 10 V 0 - 20 mA / ± 20 mA 4 - 20 mA / ± 20 mA	-	0,11	1)	R412018277
2AO2M12-E	socket (female), M12, 5-pin	internal	-	2	-	0 - 10 V / ± 10 V 0 - 20 mA 4 - 20 mA	0,11	1)	R412018281

1) freely selectable signals, configurable

Delivery contents: incl. 2 spring clamp elements and seal

Valve systems ▶ Link structure AES

Link structure AES, Series AV03/AV05 Accessories

Data final plug (male), Series CN2

▶ Plug, M12x1, 4-pin, B-coded



00120228

Ambient temperature min./max..

-25°C / +80°C

Protection class

IP67

Materials:

Housing

Thermoplastic elastomer

Cable exit	Housing color	Weight	Part No.
		[kg]	
straight 180°	Black	0,013	8941054064

Data final plug, Series CN2

▶ Plug, M12x1, 4-pin, D-coded



23447

Ambient temperature min./max..

-25°C / +85°C

Protection class

IP67

Operating voltage AC, max.

250 V

Materials:

Housing

Brass

Number of wires	Current, max.	Cable exit	Suitable cable-Ø min./max.	Weight	Part No.
	[A]		[mm]	[kg]	
4	4	straight 180°	6 / 8	0,41	R419801401

M12x1 Socket (female), Series CN2

▶ Socket, M12x1, 4-pin, A-coded ▶ straight



00129412

Ambient temperature min./max..

-25°C / +90°C

Protection class

IP67

Materials:

Housing

Polybutyleneterephthalate

Seals

Fluorocarbon caoutchouc

Operating-voltage	Current, max.	Cable exit	Suitable cable-Ø min./max.	Housing color	Weight	Part No.
AC						
[V]	[A]		[mm]		[kg]	
240	4	straight 180°	4 / 8	Black	0,028	8941054324

Valve systems ▶ Link structure AES

Link structure AES , Series AV03/AV05
Accessories
M12x1 Socket (female), Series CN2

▶ Socket, M12x1, 4-pin, A-coded ▶ angled



22869

 Ambient temperature min./max.
 Protection class

 -25 °C / +90 °C
 IP67

Materials:

 Housing
 Seals

 Polybutyleneterephthalate
 Fluorocarbon caoutchouc

Operating voltage	Current, max.	Cable exit	Suitable cable-Ø min./max.	Housing color	Weight	Part No.
AC						
[V]	[A]		[mm]		[kg]	
240	4	angled 90°	4 / 8	Black	0,027	8941054424

Data final plug for CANopen and DeviceNet, Series CN2

▶ Plug, M12x1, 5-pin, A-coded



00129791

 Ambient temperature min./max.
 Protection class

 +0 °C / +60 °C
 IP67

Materials:

Housing

Thermoplastic elastomer

Cable exit	Housing color	Weight	Part No.
		[kg]	
straight 180°	black	0,011	8941054264

M12x1 Socket (female), Series CN2

▶ Socket, M12x1, 5-pin, A-coded ▶ screened



00129776

 Ambient temperature min./max.
 Protection class
 Cable fitting

 -40 °C / +85 °C
 IP67
 PG 9

Materials:

Housing

Brass, nickel-plated

Operating voltage	Current, max.	Cable exit	Suitable cable-Ø min./max.	Housing color	Weight	Part No.
AC						
[V]	[A]		[mm]		[kg]	
125	4	straight 180°	6 / 8	silver	0,051	8942051602

Valve systems ▶ Link structure AES

Link structure AES , Series AV03/AV05 Accessories

M12x1 Plug (male), Series CN2

▶ Plug, M12x1, 5-pin, B-coded ▶ screened



00120241

Ambient temperature min./max..

-25 °C / +90 °C

Protection class

IP67

Materials:

Housing

Brass, nickel-plated

Seals

Fluorocarbon caoutchouc

Operating voltage	Current, max.	Cable exit	Suitable cable-Ø min./max.	Housing color	Weight	Part No.
AC						
[V]	[A]		[mm]		[kg]	
120	4	straight 180°	4 / 9	silver	0,06	8941054054

M12x1 Socket (female), Series CN2

▶ Socket, M12x1, 5-pin, B-coded ▶ screened



00120227

Ambient temperature min./max..

-25 °C / +90 °C

Protection class

IP67

Materials:

Housing

Brass, nickel-plated

Seals

Fluorocarbon caoutchouc

Operating voltage	Current, max.	Cable exit	Suitable cable-Ø min./max.	Housing color	Weight	Part No.
AC						
[V]	[A]		[mm]		[kg]	
120	4	straight 180°	4 / 9	silver	0,06	8941054044

M12x1 Plug (male), Series CN2

▶ Plug, M12x1, 5-pin, A-coded ▶ screened



00129775

Ambient temperature min./max..

-40 °C / +85 °C

Protection class

IP67

Cable fitting

PG 9

Materials:

Housing

Brass, nickel-plated

Operating voltage	Current, max.	Cable exit	Suitable cable-Ø min./max.	Housing color	Weight	Part No.
AC						
[V]	[A]		[mm]		[kg]	
125	4	straight 180°	6 / 8	silver	0,048	8942051612

Valve systems ▶ Link structure AES
Link structure AES , Series AV03/AV05
Accessories
Connecting cable, Series CN2
▶ Plug, M8x1, 3-pin ▶ open cable ends


23461_web

Ambient temperature min./max.	-25 °C / +85 °C
Protection class	IP67
Operating voltage AC, max.	60 V
Cable exit	angled
Wire cross-section	0,25 mm ²
Materials:	
Cable color	Black

Current, max. [A]	Number of wires	Cable length L [m]	Part No.
4	3	2	R412021678
		5	R412021679
		10	R412021680

Connecting cable, Series CN2
▶ Plug, M8x1, 3-pin ▶ socket, M8x1, 3-pin ▶ with cable


23463

Ambient temperature min./max.	-25 °C / +85 °C
Protection class	IP67
Wire cross-section	0,25 mm ²

Current, max. [A]	Number of wires	Cable length L [m]	Part No.
4	3	1	R412021681
		2	R412021682
		5	R412021683

Valve systems► Link structure AES

Link structure AES , Series AV03/AV05
Accessories

Plug M8x1, Series CN2
► Plug, M8x1, 3-pin ► angled

Ambient temperature min./max.

-25°C / +80°C

Protection class

IP67

Materials:

Housing

Polyamide

Housing color

Black



23968

	Operating voltage		Current, max.	Contact assignment	Cable exit	Suitable cable-Ø min./max.	Weight	Part No.
	DC	AC						
	[V]	[V]	[A]		[mm]	[kg]		
	75	60	4	3	angled 90°	3,5 / 5	0,008	R412021677

Valve systems ▶ Link structure AES

Link structure AES , Series AV03/AV05

Accessories

Plug M8x1, Series CN2

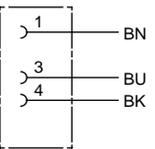
▶ Plug, M8x1, 3-pin ▶ straight



23467

Ambient temperature min./max.	-25°C / +85°C
Protection class	IP65
Operating voltage AC, max.	60 V
Operating voltage DC, max.	75 V

Materials:	
Housing	Polyamide

	Current, max.	Contact assignment	Cable exit	Suitable cable-Ø min./max.	Number of plug options 1	Housing color	Weight	Part No.
	[A]			[mm]			[kg]	
	4	3	straight 180°	3,5 / 5	1 Position	Black	0,008	R412021676

Connecting cable mit Plug, Series CN2

▶ Plug, M8x1, 3-pin ▶ open cable ends ▶ with self-clinching screw



00118468

Cable exit	straight 180°
Materials:	
Housing color	Black
Cable sheath	Polyvinyl chloride

Protection class	Number of wires	Cable-Ø	Cable length L	Weight	Part No.
		[mm]	[m]	[kg]	
IP68	3	4,5	2	0,055	8946203602
			5	0,128	8946203612
			10	0,25	8946203622

Valve systems ▶ Link structure AES

Link structure AES , Series AV03/AV05
Accessories

Connecting cable mit Plug and Socket, Series CN2

▶ Plug, M8x1, 3-pin ▶ socket, M8x1, 3-pin



00118679

Cable exit straight 180°

Materials:
Housing color Black
Cable sheath Polyvinyl chloride
Cable color Black

Protection class	Number of wires	Cable-Ø [mm]	Cable length L [m]	Weight [kg]	Part No.
IP68	3	4,5	1	0,035	8946203702
			2	0,06	8946203712
			5	0,136	8946203722

Adapter, Series CN2

▶ Socket, M12x1, 3-pin ▶ plug, M8x1, 3-pin



23277

Ambient temperature min./max. -25°C / +85°C
Protection class IP67
Operating voltage AC, max. 60 V

Materials:
Housing Polyurethane

Number of wires	Current, max. [A]	Contact assignment	Housing color	Part No.
3	4	3	Black	R412021684

Valve systems ▶ Link structure AES

Link structure AES , Series AV03/AV05

Accessories

Connecting cable, Series CN2

▶ Plug, M12x1, 4-pin ▶ 2x open cable ends, 4-pin ▶ with self-clinching screw



23289

Ambient temperature min./max.	-25 °C / +80 °C
Protection class	IP67
Operating voltage AC, max.	250 V
Cable exit	straight
Wire cross-section	0,34 mm ²
Tightening torque for mounting screws	0,8 Nm

Materials:

Housing	Polyvinyl chloride
Cable sheath	Polyurethane
Cable color	Black

Current, max. [A]	Number of wires	Bending radius min. [mm]	Cable-Ø [mm]	Cable length L [m]	Part No.
4	4	21,5	4,3	2	R412021688
				5	R412021689
				10	R412021690

Connecting cable, Series CN2

▶ Plug, M12x1, 4-pin ▶ 2x socket, M8x1, 3-pin ▶ with cable



23288

Ambient temperature min./max.	-25 °C / +80 °C
Protection class	IP67
Operating voltage AC, max.	60 V
Wire cross-section	0,25 mm ²
Tightening torque for mounting screws	0,8 Nm

Materials:

Housing	Polyurethane
Cable sheath	Polyurethane
Cable color	Black

Current, max. [A]	Number of wires	Bending radius min. [mm]	Cable-Ø [mm]	Cable length L [m]	Part No.
4	3	1,25	4,1	0,6	R412021685
				1,5	R412021686
				3	R412021687

Valve systems► Link structure AES

Link structure AES , Series AV03/AV05

Accessories

M12x1 Plug (male), Series CN2



Ambient temperature min./max. -40°C / +85°C
 Protection class IP67
 Materials:
 Housing Polyamide

Electrical interface	Operating voltage	Current, max.	Cable exit	Suitable cable-Ø min./max.	Weight	Part No.
	AC					
	[V]	[A]		[mm]	[kg]	
Plug, M12x1, 4-pin	250	4	angled	4 / 6	0,02	1834484223
Plug, M12x1, 4-pin, A-coded	250	4	straight 180°	2,1 / 5	0,023	1834484246

For the duo plug, the cable diameter to be used varies between 2.1 – 3.0 mm and 4.0 – 5.0 mm depending on the seal used.

M12x1 Plug (male), Series CN2

► Plug, M12x1, 4-pin, A-coded



Ambient temperature min./max. -40°C / +85°C
 Protection class IP67

Operating voltage	Current, max.	Cable exit	Suitable cable-Ø min./max.	Weight	Part No.
AC					
[V]	[A]		[mm]	[kg]	
250	4	straight 180°	4 / 6	0,016	1834484222

Connecting cable with plug, Series CN2

► Plug, M12x1, 5-pin ► open cable ends, 5-pin ► with self-clinching screw



Cable exit straight 180°
 Materials:
 Housing color Black
 Cable sheath Polyvinyl chloride

Protection class	Number of wires	Cable length L	Weight	Part No.
		[m]	[kg]	
IP68	5	2	0,097	8946203432
		5	0,228	8946203442
		10	0,449	8946203452

Valve systems ▶ Link structure AES
Link structure AES , Series AV03/AV05
Accessories
Connecting cable mit Plug, Series CN2
▶ Plug, M12x1, 5-pin ▶ open cable ends, 5-pin


23278

Ambient temperature min./max.	-25°C / +80°C
Protection class	IP67
Operating voltage AC, max.	125 V
Cable exit	angled
Wire cross-section	0,34 mm ²
Tightening torque for mounting screws	0,8 Nm

Materials:	
Housing	Polyurethane
Housing color	Black
Cable sheath	Polyurethane
Cable color	Black

Current, max. [A]	Number of wires	Bending radius min. [mm]	Cable-Ø [mm]	Cable length L [m]	Part No.
4	5	25	5	2	R412021691
				5	R412021692
				10	R412021693

Connecting cable mit Plug, Series CN2
▶ Plug, M12x1, 5-pin ▶ socket (female), M12x1, 5-pin ▶ with cable


23279

Ambient temperature min./max.	-25°C / +80°C
Protection class	IP67
Operating voltage AC, max.	125 V
Cable exit	angled
Wire cross-section	0,34 mm ²
Tightening torque for mounting screws	0,8 Nm

Materials:	
Housing	Polyurethane
Housing color	Black
Cable sheath	Polyurethane
Cable color	Black

Current, max. [A]	Number of wires	Bending radius min. [mm]	Cable-Ø [mm]	Cable length L [m]	Part No.
4	5	25	5	2	R412021694
				5	R412021695

Valve systems ▶ Link structure AES

Link structure AES , Series AV03/AV05 Accessories

Connecting cable with Plug, Series CN2

▶ Plug, M12x1, 3-pin ▶ socket (female), M8x1, 3-pin ▶ mit cable



23466

Ambient temperature min./max.	-25 °C / +80 °C
Protection class	IP67
Operating voltage AC, max.	60 V
Cable exit	angled
Wire cross-section	0,25 mm ²
Tightening torque for mounting screws	0,5 Nm

Materials:	
Housing	Polyurethane
Housing color	Black
Cable sheath	Polyurethane
Cable color	Black

Current, max. [A]	Number of wires	Bending radius min. [mm]	Cable-Ø [mm]	Cable length L [m]	Part No.
4	3	20,5	4,1	2	R412021696
				5	R412021697

Connecting cable with plug, Series CN2

▶ Plug, M12x1, 5-pin ▶ socket (female), M12x1, 5-pin ▶ screened ▶ mit cable



23279

Ambient temperature min./max.	-25 °C / +85 °C
Protection class	IP65
Operating voltage AC, max.	250 V
Cable exit	angled
Wire cross-section	0,34 mm ²
Tightening torque for mounting screws	0,8 Nm

Materials:	
Housing	Polyurethane
Cable sheath	Polyurethane
Cable color	Black

Current, max. [A]	Number of wires	Bending radius min. [mm]	Cable-Ø [mm]	Cable length L [m]	Part No.
4	4	20,8	5,4	2	R412022193
				5	R412022194
				10	R412022195

Valve systems ▶ Link structure AES
Link structure AES, Series AV03/AV05
Accessories
Distributor, Series AES
▶ 4x passive distributor, M12x1, 8-pin / 4 x M8x1, 3-pin


22702

Ambient temperature min./max.	-30°C / +80°C
Protection class	IP67
Operating voltage electronics	24 V DC
Power consumption electronics	2 A

Materials:	
Housing	Polyamide

for Type	Port	Port	Weight	Part No.
			[kg]	
16DI4M12 16DO4M12	plug (male), M12x1, 8-pin	socket (female), M8x1, 3-pin, 4x	0,07	R402001810

Connecting cable, Series CN2
▶ Plug, M12x1, 8-pin, A-coded ▶ socket, M12x1, 8-pin, A-coded ▶ screened ▶ Suitable for dynamic laying


00120164

Ambient temperature min./max.	-25°C / +80°C
Protection class	IP67
Cable exit	straight 180°

Materials:	
Housing	Polyurethane
Housing color	Orange
Seals	Fluorocautchouc

Operating voltage max.		Current, max.	Cable length L	Part No.
[V DC]	[V AC]	[A]	[m]	
36	30	1,5	0,5	8946202802
			1	8946202812
			2	8946202822
			5	8946202832
			10	8946202842
			0,3	8946202852
			14	R412006559

Valve systems ▶ Link structure AES

Link structure AES, Series AV03/AV05
Accessories

Connecting cable with plug and socket, Series CN2

▶ Plug, M12x1, 3-pin ▶ socket, M8x1, 3-pin



Cable exit

straight 180°

Materials:
Housing color
Cable sheath
Cable color

Black
Polyvinyl chloride
Black

Protection class	Number of wires	Cable length L	Weight	Part No.
		[m]	[kg]	
IP68	3	2	0,065	8946203462
		5	0,167	8946203472

Connecting cable with plug and socket, Series CN2

▶ Plug, M12x1, 5-pin ▶ socket, M12x1, 5-pin



Protection class
Cable exit

IP68
straight 180°

Materials:
Housing color
Cable sheath
Cable color

Black
Polyvinyl chloride
Black

Number of wires	Cable length L	Weight	Part No.
	[m]	[kg]	
5	2	0,113	8946203482
	5	0,224	8946203492

Valve systems ▶ Link structure AES
Link structure AES, Series AV03/AV05
Accessories
Y-connector, Series CN2
▶ Plug, M12x1, 5-pin ▶ 2x socket, M12x1, 5-pin


00118470

Ambient temperature min./max.

-25 °C / +90 °C

Protection class

IP68

Materials:

Housing

Polyurethane

Seals

Fluorocaoutchouc

Operating voltage		Current, max.	Cable exit	Housing color	Weight	Part No.
DC	AC					
[V]	[V]	[A]			[kg]	
36	30	4	straight 180°	Black	0,029	8941002392

Y-connector, Series CN2
▶ Plug, M12x1, 4-pin ▶ 2x socket, M8x1, 3-pin


00118470

Ambient temperature min./max.

-25 °C / +90 °C

Protection class

IP68

Materials:

Housing

Polyurethane

Seals

Fluorocaoutchouc

Operating voltage		Current, max.	Cable exit	Housing color	Weight	Part No.
DC	AC					
[V]	[V]	[A]			[kg]	
75	60	4	straight 180°	Black	0,02	8941002382

Valve systems► Link structure AES

Link structure AES, Series AV03/AV05
Accessories

Multipol plug D-Sub (25-pin)



15845

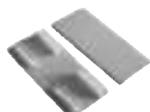
Ambient temperature min./max.	-5 °C / +50 °C
Protection class	IP65
Operating voltage DC max.	24 V
Wire cross-section	0,21 mm ²

Materials:	
Housing	Thermoplastic elastomer
Cable sheath	Polyvinyl chloride

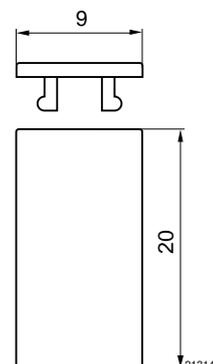
Electrical interface		Cable length L	Part No.
[Port 1]	[Port 2]	[m]	
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	0,5	R412020630
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	1	R412020631
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	2	R412020632
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	5	R412020633
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	10	R412020634
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	0,5	R412020635
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	1	R412020636
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	2	R412020637
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	5	R412020638
Socket (female), D-Sub, 25-pin	Plug (male), D-Sub, 25-pin	10	R412020639

Link structure AES
Accessories
Name plates

▶ for AV03, AV05, LS04 / LS04-SW, bus coupler Series AES



21315



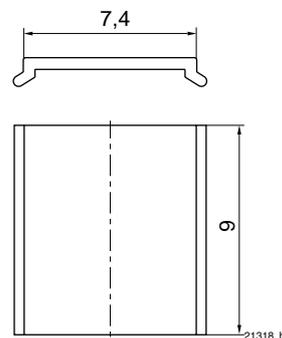
Part No.	Type	Material	Weight [kg]	Delivery quantity [Piece]
R422100889	name plates	Polyamide	0,014	20

Name plates, Front

▶ for AV03, AV05, I/O modules Series AES, Bus coupler Series AES



21315_a



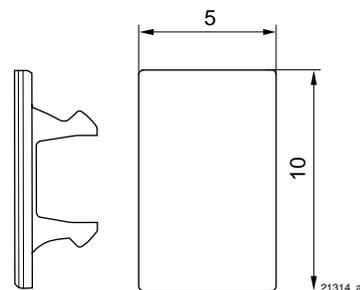
Part No.	Type	Material	Weight [kg]	Delivery quantity [Piece]
R412019552	Name plates, Front	Polyamide	0,014	150

Name plates, on the top

▶ for I/O modules Series AES



21315_a



Part No.	Type	Material	Weight [kg]	Delivery quantity [Piece]
R412018192	Name plates, on the top	Polyamide	0,014	60

Valve systems ▶ Link structure AES

Link structure AES

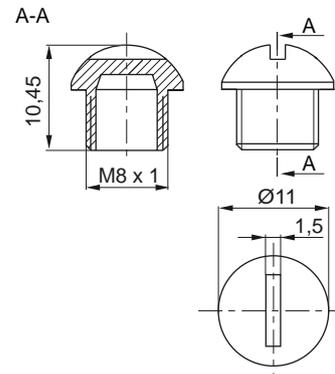
Accessories

Protective cap

▶ M8x1



00120243



00131442

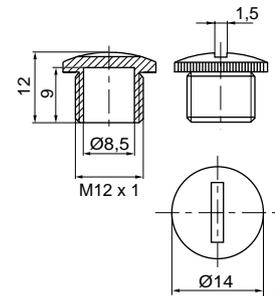
Part No.	Type	Material	Weight [kg]	Delivery quantity [Piece]
R412003493	M8x1	Polyamide	0,014	25

Protective cap

▶ M12x1



00120243



00132349

Part No.	Type	Material	Weight [kg]	Delivery quantity [Piece]
1823312001	M12x1	Polyamide	0,001	50

Valve systems ▶ Link structure AES
Link structure AES
Accessories
End plate left

▶ for AES



21465

Ambient temperature min./max.

-10 °C / +60 °C

Materials:

Base plate

Polyamide, fiber-glass reinforced

Type	Weight	Part No.
	[kg]	
End plate left	0,033	R412015398

Delivery contents: incl. 2 spring clamp elements

End plate right

▶ for AES



21398

Ambient temperature min./max.

-10 °C / +60 °C

Materials:

Base plate

Polyamide, fiber-glass reinforced

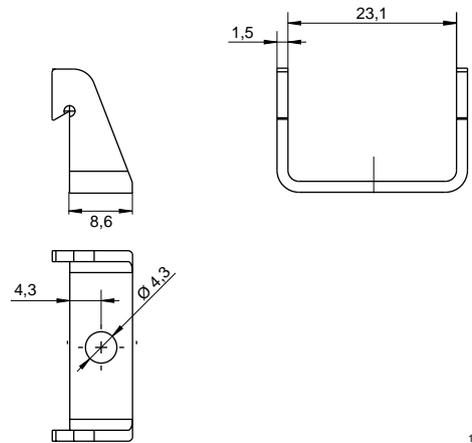
Suitable for Series	Weight	Part No.
	[kg]	
Stand-Alone Variant AES	0,039	R412015741

Scope of delivery incl. seal and mounting screws

Valve systems ▶ Link structure AES

Link structure AES
Accessories

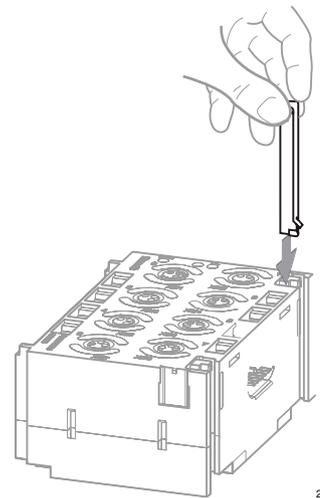
Retaining bracket for intermediate mounting
▶ for AES, AV03, AV05



Part No.	Type	Material	Delivery quantity [Piece]		
R412018339	retaining bracket	stainless steel	10		

After three I/O modules or 8 valves, mount a retaining bracket (R412018339) to fasten the entire unit to the mounting surface.
Retaining brackets are included in the delivery contents
The max. permissible space between the retaining brackets is 150 mm.

Spring clamp element
▶ for AES



Part No.	Type	Material	Delivery quantity [Piece]
R412015400	Spring clamp element	Steel	10

Valve systems ▶ Link structure BDC
Direct field bus connection (BDC), B-design

▶ Bus coupler with driver ▶ Field bus protocol: PROFIBUS DP / CANopen / CANopen sb / DeviceNet / EtherCAT / sercos III



00130356

Ambient temperature min./max.	+0°C / +50°C
Protection class	IP65
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-15% / +20%
Power consumption electronics	0.05 A
Operating voltage, actuators	24 V DC
Total current for actuators	3 A
Number of solenoid coils max.	32
Max. power consumption per coil	0.1 A
Port valve system	Socket 2.0 mm strip 3x13-pin
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	IEC 61000-6-2

Field bus protocol	Port Bus IN	Port Bus OUT X72	power supply	Operating Instructions	Weight [kg]	Part No.
PROFIBUS DP	Plug (male), M12x1, 5-pin, B-coded	Socket (female), M12x1, 5-pin, B-coded	Plug (male), M12, 4-pin, A-coded	R412009414	0.29	R412008537
CANopen	Plug (male), M12x1, 5-pin, A-coded	Socket (female), M12x1, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded	R412009415	0.29	R412008538
CANopen sb	Plug (male), M12x1, 5-pin, A-coded	Socket (female), M12x1, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded	R412009415	0.29	R412008990
DeviceNet	Plug (male), M12x1, 5-pin, A-coded	Socket (female), M12x1, 5-pin, A-coded	Plug (male), M12, 4-pin, A-coded	R412009416	0.29	R412008539
EtherCAT	Socket (female), M12x1, 5-pin, D-coded	Socket (female), M12x1, 5-pin, D-coded	Plug (male), M12, 4-pin, A-coded	R412009414	0.29	R412009573
sercos III	Socket (female), M12x1, 5-pin, D-coded	Socket (female), M12x1, 5-pin, D-coded	Plug (male), M12, 4-pin, A-coded	R412012610	0.29	R412009516
Scope of delivery incl. 2 screws and seal						

Directional valves ▶ Electrically and pneumatically operated

Serie TC08 (G 1/8) and TC15 (G 1/4), Pipe connection
 ▶ **Manual override: with detent and without with detent**

Variants

2 x 3/2- and 5/2-directional valve, single, double and 5/3-directional valve, closed center, exhausted center and pressurized center

Electric. connection: plug, M8, 3- and 4-pin



Pneumatically operated



Valve systems

- Plate valves with individual wiring
- Electr. connection: Plug M8 / plug, form C
- Electr. connection: Electrical connector

Connecting cable, Series CN2, 3- or 4-pin



Series TC08

- Qn Max. = 800 l/min

Series TC15

- Qn Max. = 1500 l/min



Directional valves ▶ Electrically and pneumatically operated
Series TC08 (G 1/8) and TC15 (G 1/4), pipe connection
▶ Manual override: with detent or without detent
TC08 G 1/8


		Manual override: with detent		Manual override: without with detent	
Pilot	Designation	24 V DC	AC 50/60 Hz	24 V DC	AC 50/60 Hz
Internal	2 x 3/2 NC/NC	R422102002	R422102004	R422102023	R422102025
	2 x 3/2 NO/NO	R422102006	R422102008	R422102027	R422102029
	2 x 3/2 NC/NO	R422102010	R422102012	R422102031	R422102033
	5/2, 2,5 - 10 bar	0820060001	0820060003	0820060101	0820060103
	5/2, 3 - 10 bar	0820060026	0820060028	0820060126	0820060128
	5/2, 2 - 10 bar	0820060501	0820060503	0820060601	0820060603
	5/3, Closed center	0820061001	0820061003	0820061101	0820061103
	5/3, exhausted center	0820061011	0820061013	0820061111	0820061113
	5/3, pressurized center	0820061021	0820061023	0820061121	0820061123
External	2 x 3/2 NC/NC	R422102013	R422102015	R422102034	R422102036
	2 x 3/2 NO/NO	R422102016	R422102018	R422102037	R422102039
	2 x 3/2 NC/NO	R422102019	R422102021	R422102040	R422102042
	5/2, 2,5 - 10 bar	0820060051	0820060053	0820060151	0820060153
	5/2, 3 - 10 bar	0820060076	0820060078	0820060176	0820060178
	5/2, 2 - 10 bar	0820060551	0820060553	0820060651	0820060653
	5/3, Closed center	0820061051	0820061053	0820061151	0820061153
	5/3, exhausted center	0820061061	0820061063	0820061161	0820061163
	5/3, pressurized center	0820061071	0820061073	0820061171	0820061173

TC15 G 1/4


		Manual override: with detent		Manual override: without with detent	
Pilot	Designation	24 V DC	AC 50/60 Hz	24 V DC	AC 50/60 Hz
Internal	2 x 3/2 NC/NC	R422102137	R422102139	R422102158	R422102160
	2 x 3/2 NO/NO	R422102141	R422102143	R422102162	R422102164
	2 x 3/2 NC/NO	R422102145	R422102147	R422102166	R422102168
	5/2, 2,5 - 10 bar	0820058001	0820058003	0820058101	0820058103
	5/2, 3 - 10 bar	0820058026	0820058028	0820058126	0820058128
	5/2, 2 - 10 bar	0820058501	0820058503	0820058601	0820058603
	5/3, Closed center	0820059001	0820059003	0820059101	0820059103
	5/3, exhausted center	0820059011	0820059013	0820059111	0820059113
	5/3, pressurized center	0820059021	0820059023	0820059121	0820059123
External	2 x 3/2 NC/NC	R422102148	R422102150	R422102169	R422102171
	2 x 3/2 NO/NO	R422102151	R422102153	R422102172	R422102174
	2 x 3/2 NC/NO	R422102154	R422102156	R422102175	R422102177
	5/2, 2,5 - 10 bar	0820058051	0820058053	0820058151	0820058153
	5/2, 3 - 10 bar	0820058076	0820058078	0820058176	0820058178
	5/2, 2 - 10 bar	0820058551	0820058553	0820058651	0820058653
	5/3, Closed center	0820059051	0820059053	0820059151	0820059153
	5/3, exhausted center	0820059061	0820059063	0820059161	0820059163
	5/3, pressurized center	0820059071	0820059073	0820059171	0820059173

Directional valves ▶ Electrically and pneumatically operated
Serie TC08 (G 1/8) and TC15 (G 1/4), Pipe connection

▶ Manual override: with detent and without with detent

Coils for electrically operated directional valves TC08 and TC15

	Voltage	Part No.
Coil with 15 mm, form C	24 V DC	R422101600
	24 V AC	R422101601
	110 V AC	R422101598
	230 V AC	R422101599
Coil with 15 mm, M8	24 V DC, 4-pin	R422101603
	24 V DC, 3-pin	R422101604

Electrical connectors

ISO 15217, form C, 8mm		Voltage	LED status display	Cable length	
	1834484187	0 - 300 V	-	-	
	4402050330	24V DC / AC	green	-	
ISO 15217, form C		Voltage	LED status display	Cable length	
	1834484212	230V	-	3m	
	1834484213				
	1834484204	24V DC / AC		yellow	3m
	1834484205				
	1834484208	230V			
	1834484209				

Manifold strip


Number of valve positions	TC08	TC15
2	R422000931	R422000942
3	R422000932	R422000943
4	R422000933	R422000944
5	R422000934	R422000945
6	R422000935	R422000946
8	R412012677	R412012680
10	R412012678	R412012681
12	R412012679	R412012682

Mounting kit B	TC08	TC15
For 6 valves, delivery incl. seals and mounting screws	R422000937	R422000947
Blanking plate C	TC08	TC15
5 piece, delivery incl. seals and mounting screws	R422000939	R422000938
Mounting bracket	TC08	TC15
	1821332048	1821332050
Mounting clip	TC08	TC15
	1821332049	1821332051

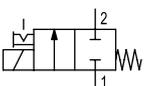
Valve systems ▶ Electrically operated
2/2-directional valve, Series 589

▶ Qn = 50 l/min ▶ NC ▶ pipe connection ▶ compressed air connection output: Ø6x1 ▶ Electr. connection: Plug, ISO 15217, form C ▶ single valve ▶ Manual override: with detent ▶ Qn = 50 - 750 l/min



P579_400

Version	Poppet valve
Sealing principle	Soft sealing
Working pressure min./max.	0 bar / 7 bar
Ambient temperature min./max.	-15 °C / +50 °C
Medium temperature min./max.	-15 °C / +50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Degree of protection with connection	IP65 Protected against polarity reversal
Duty cycle	100 %
Switch-on time	20 ms
Switch-off time	23 ms
Weight	0.079 kg

		MO	Compressed air connection		Operational voltage	Qn	Part No.
			Input	Output			
					DC	[l/min]	
	NC		Ø6x1	Ø6x1	24 V	50	5894000220

MO = Manual override

Seals: Acrylonitrile Butadiene Rubber

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Electrically operated

3/2-directional valve, Series 589

▶ Qn = 520 - 750 l/min ▶ NC ▶ pipe connection ▶ compressed air connection output: Ø6x1 - Ø 8x1 ▶ Electr. connection: Plug, ISO 15217, form C ▶ single valve ▶ Manual override: with detent ▶ Pilot: internal ▶ Qn = 50 - 750 l/min



P589_460

Version	Poppet valve
Sealing principle	Soft sealing
Working pressure min./max.	3 bar / 8 bar
Ambient temperature min./max.	-15 °C / +50 °C
Medium temperature min./max.	-15 °C / +50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Degree of protection with connection	IP65 Protected against polarity reversal
Duty cycle	100 %
Switch-on time	18 ms
Switch-off time	16 ms
Weight	0.093 kg

	MO	Compressed air connection			Operating voltage			Qn	LED	Note	Part No.
		Input	Output	Exhaust	DC	AC 50 Hz	AC 60 Hz				
	NC	Ø6x1	Ø6x1		12 V	-	-	520	-	-	5894400210
		Ø6x1	Ø6x1		24 V	-	-	520	-	-	5894400220
		Ø6x1	Ø6x1		24 V	-	-	520	Red	1)	5894400620
		Ø6x1	Ø6x1		-	24 V	24 V	520	-	-	5894405220
		Ø6x1	Ø6x1		-	110 V	110 V	520	-	-	5894405270
		Ø6x1	Ø6x1		-	230 V	230 V	520	-	-	5894405280
		Ø6x1	Ø6x1	Ø 8x1	-	230 V	230 V	520	Red	-	5894405680
		Ø 8x1	Ø 8x1		12 V	-	-	750	-	-	5894600210
		Ø 8x1	Ø 8x1		24 V	-	-	750	-	-	5894600220
		Ø 8x1	Ø 8x1		24 V	-	-	750	Red	1)	5894600620
		Ø 8x1	Ø 8x1		-	24 V	24 V	750	-	-	5894605220
		Ø 8x1	Ø 8x1		-	110 V	110 V	750	-	-	5894605270
		Ø 8x1	Ø 8x1		-	230 V	230 V	750	-	-	5894605280
Ø 8x1	Ø 8x1		-	230 V	230 V	750	Red	-	5894605680		

MO = Manual override

1) With LED and protective diode for reducing voltage peaks in the solenoid coil, protected against polarity reversal

Seals: Acrylonitrile Butadiene Rubber; Polyurethane

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Electrically operated

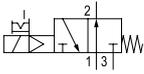
3/2-directional valve, Series 589

▶ Qn = 520 - 750 l/min ▶ NO ▶ pipe connection ▶ compressed air connection output: Ø6x1 - Ø 8x1 ▶ Electr. connection: Plug, ISO 15217, form C ▶ single valve ▶ Manual override: with detent ▶ Pilot: internal ▶ Qn = 50 - 750 l/min



P589_460

Version	Poppet valve
Sealing principle	Soft sealing
Working pressure min./max.	3 bar / 8 bar
Ambient temperature min./max.	-15 °C / +50 °C
Medium temperature min./max.	-15 °C / +50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Degree of protection with connection	IP65 Protected against polarity reversal
Duty cycle	100 %
Switch-on time	18 ms
Switch-off time	16 ms
Weight	0.093 kg

		MO	Compressed air connection			Operating voltage			Qn	LED	Note	Part No.
			Input	Output	Exhaust	DC	AC 50 Hz	AC 60 Hz				
									[l/min]			
	NO		Ø6x1	Ø6x1	Ø 8x1	12 V	-	-	520	-	-	5894410210
			Ø6x1	Ø6x1		24 V	-	-	520	-	-	5894410220
			Ø6x1	Ø6x1		24 V	-	-	520	Red	1)	5894410620
			Ø6x1	Ø6x1		-	24 V	24 V	520	-	-	5894415220
			Ø6x1	Ø6x1		-	110 V	110 V	520	-	-	5894415270
			Ø6x1	Ø6x1		-	230 V	230 V	520	-	-	5894415280
			Ø6x1	Ø6x1		-	230 V	230 V	520	Red	-	5894415680
			Ø 8x1	Ø 8x1		12 V	-	-	750	-	-	5894610210
			Ø 8x1	Ø 8x1		24 V	-	-	750	-	-	5894610220
			Ø 8x1	Ø 8x1		24 V	-	-	750	Red	1)	5894610620
			Ø 8x1	Ø 8x1		-	24 V	24 V	750	-	-	5894615220
			Ø 8x1	Ø 8x1		-	110 V	110 V	750	-	-	5894615270
			Ø 8x1	Ø 8x1		-	230 V	230 V	750	-	-	5894615280
			Ø 8x1	Ø 8x1		-	230 V	230 V	750	Red	-	5894615680

MO = Manual override

1) With LED and protective diode for reducing voltage peaks in the solenoid coil, protected against polarity reversal

Seals: Acrylonitrile Butadiene Rubber; Polyurethane

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Electrically operated

3/2-directional valve, Series 589

▶ Qn = 520 - 750 l/min ▶ NC ▶ pipe connection ▶ compressed air connection output: Ø6x1 - Ø 8x1 ▶ Electr. connection: Plug, ISO 15217, form C ▶ single valve ▶ External ▶ Pilot: External ▶ Qn = 50 - 750 l/min



P589_460

Version	Poppet valve
Sealing principle	Soft sealing
Working pressure min./max.	0.5 bar / 8 bar
Control pressure min./max.	3 bar / 10 bar
Ambient temperature min./max.	-15 °C / +50 °C
Medium temperature min./max.	-15 °C / +50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Degree of protection with connection	IP65
Duty cycle	Protected against polarity reversal
Switch-on time	100 %
Switch-off time	18 ms
Weight	16 ms
	0.093 kg

		Compressed air connection				Operating voltage			Qn	LED	Note	Part No.
		Input	Output	Exhaust	Pilot connection	DC	AC 50 Hz	AC 60 Hz				
									[l/min]			
	NC	Ø6x1	Ø6x1			12 V	-	-	520	-	-	5894470210
		Ø6x1	Ø6x1			24 V	-	-	520	-	-	5894470220
		Ø6x1	Ø6x1			24 V	-	-	520	Red	1)	5894470620
		Ø6x1	Ø6x1			-	24 V	24 V	520	-	-	5894475220
		Ø6x1	Ø6x1			-	110 V	110 V	520	-	-	5894475270
		Ø6x1	Ø6x1			-	230 V	230 V	520	-	-	5894475280
		Ø6x1	Ø6x1	Ø 8x1	Ø 4	-	230 V	230 V	520	Red	-	5894475680
		Ø 8x1	Ø 8x1			12 V	-	-	750	-	-	5894670210
		Ø 8x1	Ø 8x1			24 V	-	-	750	-	-	5894670220
		Ø 8x1	Ø 8x1			24 V	-	-	750	Red	1)	5894670620
		Ø 8x1	Ø 8x1			-	24 V	24 V	750	-	-	5894675220
		Ø 8x1	Ø 8x1			-	110 V	110 V	750	-	-	5894675270
		Ø 8x1	Ø 8x1			-	230 V	230 V	750	-	-	5894675280
Ø 8x1	Ø 8x1			-	230 V	230 V	750	Red	-	5894675680		

MO = Manual override

1) With LED and protective diode for reducing voltage peaks in the solenoid coil, protected against polarity reversal

Seals: Acrylonitrile Butadiene Rubber; Polyurethane

Nominal flow Qn at 6 bar and Δp = 1 bar

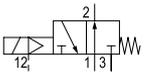
Valve systems ▶ Electrically operated
3/2-directional valve, Series 589

▶ Qn = 520 - 750 l/min ▶ NO ▶ pipe connection ▶ compressed air connection output: Ø 8x1 - Ø6x1 ▶ Electr. connection: Plug, ISO 15217, form C ▶ single valve ▶ External ▶ Pilot: External ▶ Qn = 50 - 750 l/min



P589_460

Version	Poppet valve
Sealing principle	Soft sealing
Working pressure min./max.	0.5 bar / 8 bar
Control pressure min./max.	3 bar / 10 bar
Ambient temperature min./max.	-15 °C / +50 °C
Medium temperature min./max.	-15 °C / +50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Degree of protection with connection	IP65 Protected against polarity reversal
Duty cycle	100 %
Switch-on time	18 ms
Switch-off time	16 ms
Weight	0.093 kg

		Compressed air connection				Operating voltage			Qn	LED	Note	Part No.
		Input	Output	Exhaust	Pilot connection	DC	AC 50 Hz	AC 60 Hz				
									[l/min]			
	NO	Ø 8x1	Ø 8x1	Ø 8x1	Ø 4	12 V	-	-	750	-	-	5894620210
		Ø 8x1	Ø 8x1			24 V	-	-	750	-	-	5894620220
		Ø 8x1	Ø 8x1			24 V	-	-	750	Red	1)	5894620620
		Ø 8x1	Ø 8x1			-	24 V	24 V	750	-	-	5894625220
		Ø 8x1	Ø 8x1			-	110 V	110 V	750	-	-	5894625270
		Ø 8x1	Ø 8x1			-	230 V	230 V	750	-	-	5894625280
		Ø 8x1	Ø 8x1			-	230 V	230 V	750	Red	-	5894625680
		Ø 6x1	Ø 6x1			12 V	-	-	520	-	-	5894420210
		Ø 6x1	Ø 6x1			24 V	-	-	520	-	-	5894420220
		Ø 6x1	Ø 6x1			24 V	-	-	520	Red	1)	5894420620
		Ø 6x1	Ø 6x1			-	24 V	24 V	520	-	-	5894425220
		Ø 6x1	Ø 6x1			-	110 V	110 V	520	-	-	5894425270
		Ø 6x1	Ø 6x1			-	230 V	230 V	520	-	-	5894425280
		Ø 6x1	Ø 6x1			-	230 V	230 V	520	Red	-	5894425680

MO = Manual override

1) With LED and protective diode for reducing voltage peaks in the solenoid coil, protected against polarity reversal

Seals: Acrylonitrile Butadiene Rubber; Polyurethane

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Electrically operated

5/2-directional valve, Series 589

▶ Qn = 520 - 600 l/min ▶ pipe connection ▶ compressed air connection output: Ø6x1 - Ø 8x1 ▶ Electr. connection: Plug, ISO 15217, form C ▶ single valve ▶ Manual override: with detent ▶ Pilot: internal ▶ Qn = 50 - 750 l/min



P589_470

Version	Poppet valve
Sealing principle	Soft sealing
Working pressure min./max.	3 bar / 8 bar
Ambient temperature min./max.	-15 °C / +50 °C
Medium temperature min./max.	-15 °C / +50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Degree of protection with connection	IP65
	Protected against polarity reversal
Duty cycle	100 %
Switch-on time	27 ms
Switch-off time	28 ms
Weight	0.133 kg

	MO	Compressed air connection			Operating voltage			Qn	LED	Note	Part No.
		Input	Output	Exhaust	DC	AC 50 Hz	AC 60 Hz				
								[l/min]			
		Ø6x1	Ø6x1		12 V	-	-	520	-	-	5894700210
		Ø6x1	Ø6x1		24 V	-	-	520	-	-	5894700220
		Ø6x1	Ø6x1		24 V	-	-	520	Red	1)	5894700620
		Ø6x1	Ø6x1		-	24 V	24 V	520	-	-	5894705220
		Ø6x1	Ø6x1		-	110 V	110 V	520	-	-	5894705270
		Ø6x1	Ø6x1		-	230 V	230 V	520	-	-	5894705280
		Ø6x1	Ø6x1	Ø 8x1	-	230 V	230 V	520	Red	-	5894705680
		Ø 8x1	Ø 8x1		12 V	-	-	600	-	-	5894900210
		Ø 8x1	Ø 8x1		24 V	-	-	600	-	-	5894900220
		Ø 8x1	Ø 8x1		24 V	-	-	600	Red	1)	5894900620
		Ø 8x1	Ø 8x1		-	24 V	24 V	600	-	-	5894905220
		Ø 8x1	Ø 8x1		-	110 V	110 V	600	-	-	5894905270
		Ø 8x1	Ø 8x1		-	230 V	230 V	600	-	-	5894905280
	Ø 8x1	Ø 8x1		-	230 V	230 V	600	Red	-	5894905680	

MO = Manual override

1) With LED and protective diode for reducing voltage peaks in the solenoid coil, protected against polarity reversal

Seals: Acrylonitrile Butadiene Rubber; Polyurethane

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Electrically operated
3/2-directional valve, Series CD04

▶ Qn = 900 l/min ▶ Pilot valve width: 26 mm ▶ NC, NO ▶ pipe connection ▶ compressed air connection output:
 G 1/8 ▶ Electr. connection: Plug, EN 175301-803, form B ▶ Manual override: with detent, without ▶ single solenoid
 ▶ Qn = 900 l/min



00134133

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Control pressure min./max.	See table below
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust
Connector standard	EN 175301-803:2006
Degree of protection with connection	IP65
Compatibility index	14
Duty cycle	100 %
Weight	See table below

		MO	Compressed air connection					Operating voltage	Part No.
			Input	Output	Exhaust	Pilot connection	Pilot control exhaust		
	NC, NO		G 1/8	G 1/8	G 1/8	-	M5	24 V	5772550220 5772555270 5772555280 5772555220
	NC, NO		G 1/8	G 1/8	G 1/8	-	M5	-	5772555302
	NC, NO		G 1/8	G 1/8	G 1/8	G 1/8	M5	24 V	5772560220 5772565270 5772565280
	NC, NO		G 1/8	G 1/8	G 1/8	G 1/8	M5	-	5772565302
	NC, NO	-	G 1/8	G 1/8	G 1/8	-	M5	24 V	5772590220

Part No.	Operating voltage		Power consumption	Holding power		Switch-on power		Flow rate value			Working pressure min./max.	
	AC 50 Hz	AC 60 Hz		AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1▶2	Qn 2▶3		
			24 V DC	[W]	[VA]	[VA]	[VA]	[VA]	[l/min]			[bar]
5772550220	-	-	4.8	-	-	-	-	-	-	-	-	-
5772555270	110 V	110 V	-	8.3	7.2	10.8	9.5	900	900	900	3 / 10	
5772555280	230 V	230 V	-	9	7.4	11.5	9.7	900	900	900	3 / 10	
5772555220	24 V	24 V	-	8.3	6.7	10.8	9.4	900	900	900	3 / 10	
5772555302	-	-	-	-	-	-	-	900	900	900	3 / 10	
5772560220	-	-	4.8	-	-	-	-	-	-	-	-	
5772565270	110 V	110 V	-	8.3	7.2	10.8	9.5	900	900	900	-0.95 / 10	
5772565280	230 V	230 V	-	9	7.4	11.5	9.7	900	900	900	-0.95 / 10	
5772565302	-	-	-	-	-	-	-	900	900	900	-0.95 / 10	

Valve systems ▶ Electrically operated
3/2-directional valve, Series CD04

▶ Qn = 900 l/min ▶ Pilot valve width: 26 mm ▶ NC, NO ▶ pipe connection ▶ compressed air connection output: G 1/8 ▶ Electr. connection: Plug, EN 175301-803, form B ▶ Manual override: with detent, without ▶ single solenoid
 ▶ Qn = 900 l/min

Part No.	Operating voltage		Power consumption 24 V DC	Holding power		Switch-on power		Flow rate value			Working pressure min./max.
	AC 50 Hz	AC 60 Hz		AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1▶2	Qn 2▶3	
			[W]	[VA]	[VA]	[VA]	[VA]	[l/min]			[bar]
5772590220	-	-	8.4	-	-	-	-	900	900	900	2.6 / 10

Part No.	Control pressure min./max.	Ambient temperature min./max.	Medium temperature min./max.	Switch-on time	Switch-off time	Weight	Note
	[bar]	[°C]	[°C]	[ms]	[ms]	[kg]	
5772550220 5772555270 5772555280 5772555220	3 / 10	-15°C / +50°C	-15°C / +50°C	13	27	0.3	1)
5772555302	3 / 10	-15°C / +50°C	-15°C / +50°C	-	-	0.25	1); 3)
5772560220 5772565270 5772565280	3 / 10	-15°C / +50°C	-15°C / +50°C	13	27	0.3	2)
5772565302	3 / 10	-15°C / +50°C	-15°C / +50°C	-	-	0.25	2); 3)
5772590220	2.6 / 10	-20°C / +80°C	-20°C / +80°C	13	27	0.3	1); 4)

MO = Manual override

1) Pilot: internal

2) Pilot: External

3) Basic valve without coil

4) Higher voltage tolerance

Seals: Acrylonitrile Butadiene Rubber

Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

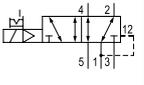
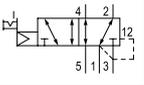
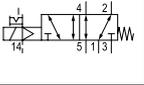
Valve systems ▶ Electrically operated
5/2-directional valve, Series CD04

▶ Qn = 900 l/min ▶ Pilot valve width: 26 mm ▶ pipe connection ▶ compressed air connection output: G 1/8
 ▶ Electr. connection: Plug, EN 175301-803, form B ▶ Manual override: with detent ▶ single solenoid



00134134

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip
Working pressure min./max.	See table below
Control pressure min./max.	3 bar / 10 bar
Ambient temperature min./max.	-15°C / +50°C
Medium temperature min./max.	-15°C / +50°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust
Connector standard	EN 175301-803:2006
Degree of protection with connection	IP65
Compatibility index	14
Duty cycle	100 %
Weight	See table below

	MO	Compressed air connection					Operating voltage		Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz	
		G 1/8	G 1/8	G 1/8	-	M5	12 V 24 V	- -	5777050210 5777050220 5777055270 5777055280 5777055220
		G 1/8	G 1/8	G 1/8	-	M5	-	-	5777055302
		G 1/8	G 1/8	G 1/8	G 1/8	M5	24 V - 110 V - 230 V - 24 V	-	5777060220 5777065270 5777065280 5777065220
		G 1/8	G 1/8	G 1/8	G 1/8	M5	-	-	5777065302
		G 1/8	G 1/8	G 1/8	-	M5	24 V -	- 110 V	5777150220 5777155270

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value			Working pressure min./max.
			AC 60 Hz		AC 50 Hz		Qn	Qn 1▶2	Qn 2▶3	
			24 V DC	AC 50 Hz	AC 60 Hz	AC 50 Hz				
		[W]	[VA]	[VA]	[VA]	[VA]	[l/min]			[bar]
5777050210	-	4.6	-	-	-	-				
5777050220	-	4.8	-	-	-	-				
5777055270	110 V	-	8.3	7.2	10.8	9.5	900	900	900	3 / 10
5777055280	230 V	-	9	7.4	11.5	9.7				
5777055220	24 V	-	8.3	6.7	10.8	9.4				
5777055302	-	-	-	-	-	-	900	900	900	3 / 10

Valve systems ▶ Electrically operated

5/2-directional valve, Series CD04

- ▶ Qn = 900 l/min ▶ Pilot valve width: 26 mm ▶ pipe connection ▶ compressed air connection output: G 1/8
- ▶ Electr. connection: Plug, EN 175301-803, form B ▶ Manual override: with detent ▶ single solenoid

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value			Working pressure min./max.
			AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1▶2	Qn 2▶3	
			[W]	[VA]	[VA]	[VA]	[VA]	[l/min]		
5777060220	-	4.8	-	-	-	-	900	900	900	-0.95 / 10
5777065270	110 V	-	8.3	7.2	10.8	9.5				
5777065280	230 V	-	9	7.4	11.5	9.7				
5777065220	24 V	-	8.3	6.7	10.8	9.4				
5777065302	-	-	-	-	-	-	900	900	900	-0.95 / 10
5777150220	-	4.8	-	-	-	-	900	900	900	3 / 10
5777155270	110 V	-	8.3	7.2	10.8	9.5				

Part No.	Switch-on time	Switch-off time	Weight	Note		
					t_F	t_E
					[ms]	[ms]
5777050210	12	21	0.39	1)		
5777050220						
5777055270						
5777055280						
5777055220						
5777055302	-	-	0.34	1); 3)		
5777060220	12	21	0.39	2)		
5777065270						
5777065280						
5777065220						
5777065302	-	-	0.34	2); 3)		
5777150220	12	21	0.39	1)		
5777155270						

MO = Manual override
 1) Pilot: internal
 2) Pilot: External
 3) Basic valve without coil
 Seals: Acrylonitrile Butadiene Rubber
 Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

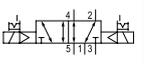
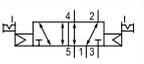
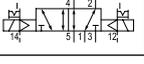
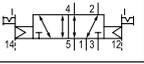
Valve systems ▶ Electrically operated
5/2-directional valve, Series CD04

- ▶ Qn = 900 l/min ▶ Pilot valve width: 26 mm ▶ pipe connection ▶ compressed air connection output: G 1/8
 ▶ Electr. connection: Plug, EN 175301-803, form B ▶ Manual override: with detent ▶ double solenoid



00134135

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip
Working pressure min./max.	See table below
Control pressure min./max.	2 bar / 10 bar
Ambient temperature min./max.	-15°C / +50°C
Medium temperature min./max.	-15°C / +50°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust
Connector standard	EN 175301-803:2006
Degree of protection with connection	IP65
Compatibility index	14
Duty cycle	100 %
Weight	See table below

	MO	Compressed air connection					Operating voltage		Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz	
		G 1/8	G 1/8	G 1/8	-	M5	12 V 24 V	- -	R412008841 5777250220 5777255220 5777255270 5777255280
		G 1/8	G 1/8	G 1/8	-	M5	-	-	5777255302
		G 1/8	G 1/8	G 1/8	G 1/8	M5	24 V	-	5777260220 5777265280
		G 1/8	G 1/8	G 1/8	G 1/8	M5	-	-	5777265302

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value			Working pressure min./max.
			AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1▶2	Qn 2▶3	
	AC 60 Hz	24 V DC	[VA]	[VA]	[VA]	[VA]	[l/min]			[bar]
R412008841	-	4.6	-	-	-	-				
5777250220	-	4.8	-	-	-	-				
5777255220	24 V	-	8.3	6.7	10.8	9.4	900	900	900	2 / 10
5777255270	110 V	-	8.3	7.2	10.8	9.5				
5777255280	230 V	-	9	7.4	11.5	9.7				
5777255302	-	-	-	-	-	-	900	900	900	2 / 10
5777260220	-	4.8	-	-	-	-				
5777265280	230 V	-	9	7.4	11.5	9.7	900	900	900	-0.95 / 10
5777265302	-	-	-	-	-	-	900	900	900	-0.95 / 10

Valve systems ▶ Electrically operated

5/2-directional valve, Series CD04

- ▶ Qn = 900 l/min ▶ Pilot valve width: 26 mm ▶ pipe connection ▶ compressed air connection output: G 1/8
- ▶ Electr. connection: Plug, EN 175301-803, form B ▶ Manual override: with detent ▶ double solenoid

Part No.	Switch-on time	Switch-off time	Weight	Note
	t_F	t_E		
	[ms]	[ms]	[kg]	
R412008841 5777250220				
5777255220	12	12	0.49	1)
5777255270				
5777255280				
5777255302	-	-	0.36	1); 3)
5777260220	12	12	0.5	2)
5777265280				
5777265302	-	-	0.36	2); 3)
MO = Manual override 1) Pilot: internal 2) Pilot: External 3) Basic valve without coil Seals: Acrylonitrile Butadiene Rubber Nominal flow Qn at 6 bar and $\Delta p = 1$ bar				

Valve systems ▶ Electrically operated

5/3-directional valve, Series CD04

▶ Qn = 900 l/min ▶ Pilot valve width: 26 mm ▶ pipe connection ▶ compressed air connection output: G 1/8
 ▶ Electr. connection: Plug, EN 175301-803, form B ▶ Manual override: with detent ▶ double solenoid ▶ Pilot: internal



00134136

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip
Working pressure min./max.	3.5 bar / 10 bar
Control pressure min./max.	3.5 bar / 10 bar
Ambient temperature min./max.	-15°C / +50°C
Medium temperature min./max.	-15°C / +50°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust
Connector standard	EN 175301-803:2006
Degree of protection with connection	IP65
Compatibility index	14
Duty cycle	100 %
Weight	See table below

	MO	Compressed air connection				Operating voltage			Part No.
		Input	Output	Exhaust	Pilot control exhaust	DC	AC 50 Hz	AC 60 Hz	
		G 1/8	G 1/8	G 1/8	M5	24 V -	- 230 V	- 230 V	5777420220 5777425280
		G 1/8	G 1/8	G 1/8	M5	-	-	-	5777425302
		G 1/8	G 1/8	G 1/8	M5	24 V -	- 230 V	- 230 V	5777410220 5777415280
		G 1/8	G 1/8	G 1/8	M5	-	-	-	5777415302
		G 1/8	G 1/8	G 1/8	M5	24 V -	- 230 V	- 230 V	5777400220 5777405280
		G 1/8	G 1/8	G 1/8	M5	-	-	-	5777405302

Part No.	Power consumption	Holding power		Switch-on power		Flow rate value			Switch-on time	Switch-off time
		AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1▶2	Qn 2▶3		
	24 V DC								t_F	t_E
	[W]	[VA]	[VA]	[VA]	[VA]	[l/min]			[ms]	[ms]
5777420220	4.8	-	-	-	-	900	900	900	12	27
5777425280	-	9	7.4	11.5	9.7	900	900	900	-	-
5777425302	-	-	-	-	-	900	900	900	-	-
5777410220	4.8	-	-	-	-	900	900	900	12	27
5777415280	-	9	7.4	11.5	9.7	900	900	900	-	-
5777415302	-	-	-	-	-	900	900	900	-	-
5777400220	4.8	-	-	-	-	900	900	900	12	27
5777405280	-	9	7.4	11.5	9.7	900	900	900	-	-
5777405302	-	-	-	-	-	900	900	900	-	-

Valve systems ▶ Electrically operated

5/3-directional valve, Series CD04

- ▶ Qn = 900 l/min ▶ Pilot valve width: 26 mm ▶ pipe connection ▶ compressed air connection output: G 1/8
- ▶ Electr. connection: Plug, EN 175301-803, form B ▶ Manual override: with detent ▶ double solenoid ▶ Pilot: internal

Part No.	Weight	Note
	[kg]	
5777420220	0.5	-
5777425280	0.39	1)
5777425302	0.5	-
5777410220	0.39	1)
5777415280	0.5	-
5777415302	0.39	1)
5777400220	0.5	-
5777405280	0.39	1)
5777405302		

MO = Manual override
 1) Basic valve without coil
 Seals: Acrylonitrile Butadiene Rubber
 Nominal flow Qn at 6 bar and Δp = 1 bar

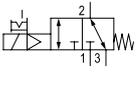
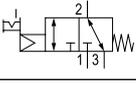
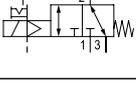
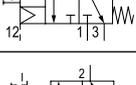
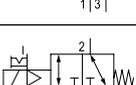
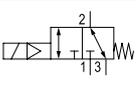
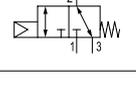
Valve systems ▶ Electrically operated
3/2-directional valve, Series CD07

▶ Qn = 1400 l/min ▶ Pilot valve width: 30 mm ▶ NC, NO ▶ pipe connection ▶ compressed air connection output:
 G 1/4 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without ▶ single solenoid
 ▶ Qn = 960 - 1400 l/min



00134142

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Control pressure min./max.	3 bar / 10 bar
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust
Connector standard	EN 175301-803:2006
Degree of protection with connection	See table below
Compatibility index	Protected against polarity reversal
Duty cycle	13, 14
Weight	See table below

	MO	Compressed air connection					Operating voltage	Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust		
	NC/NO	G 1/4	G 1/4	G 1/4	-	M5	24 V - - 24 V -	5772070220 5772075270 5772075280 5772072220 5772075220
	NC/NO	G 1/4	G 1/4	G 1/4	-	M5	-	5772075302
	NC/NO	G 1/4	G 1/4	G 1/4	G 1/8	M5	24 V - - -	5772080220 5772085270 5772085280 5772085220
	NC/NO	G 1/4	G 1/4	G 1/4	G 1/8	M5	-	5772085302
	NC/NO	G 1/4	G 1/4	G 1/4	-	M5	24 V	R412004091
	NC/NO	G 1/4	G 1/4	G 1/4	G 1/8	M5	24 V	R412004092
	NC/NO	G 1/4	G 1/4	G 1/4	-	M5	24 V	5772960220
	NC/NO	G 1/4	G 1/4	G 1/4	-	M5	-	5772965302

Valve systems ▶ Electrically operated

3/2-directional valve, Series CD07

▶ Qn = 1400 l/min ▶ Pilot valve width: 30 mm ▶ NC, NO ▶ pipe connection ▶ compressed air connection output:
G 1/4 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without ▶ single solenoid
 ▶ Qn = 960 - 1400 l/min

Part No.	Operating voltage		Power consumption	Holding power		Switch-on power		Flow rate value			Working pressure min./max.
	AC 50 Hz	AC 60 Hz	24 V DC	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1>2	Qn 2>3	
			[W]	[VA]	[VA]	[VA]	[VA]	[l/min]			
5772070220	-	-	2.1	-	-	-	-	-	-	-	-
5772075270	110 V	110 V	-	4.3	3.3	6.8	5.7	-	-	-	-
5772075280	230 V	230 V	-	4.8	4.1	6.9	5.8	1400	1400	1400	3 / 10
5772072220	-	-	4.5	-	-	-	-	-	-	-	-
5772075220	24 V	24 V	-	4.3	3.2	6.9	5.6	-	-	-	-
5772075302	-	-	-	-	-	-	-	1400	1400	1400	3 / 10
5772080220	-	-	2.1	-	-	-	-	-	-	-	-
5772085270	110 V	110 V	-	4.3	3.3	6.8	5.7	1400	1400	1400	-0.95 / 10
5772085280	230 V	230 V	-	4.8	4.1	6.9	5.8	-	-	-	-
5772085220	24 V	24 V	-	4.3	3.2	6.9	5.6	-	-	-	-
5772085302	-	-	-	-	-	-	-	1400	1400	1400	-0.95 / 10
R412004091	-	-	2.1	-	-	-	-	1400	1400	1400	3 / 10
R412004092	-	-	2.1	-	-	-	-	1400	1400	1400	-0.95 / 10
5772960220	-	-	2.1	-	-	-	-	1400	1400	1400	3 / 10
5772965302	-	-	-	-	-	-	-	1400	1400	1400	3 / 10

Part No.	Ambient temperature min./max.	Medium temperature min./max.	Switch-on time	Switch-off time	Protection class	Weight	Note
			t_F	t_E			
	[°C]	[°C]	[ms]	[ms]			
5772070220	-25°C / +50°C	-25°C / +50°C	25	45	IP65	0.54	1)
5772075270							1)
5772075280							1)
5772072220							1); 4)
5772075220							1)
5772075302	-25°C / +50°C	-25°C / +50°C	-	-	-	-	1); 3); 5)
5772080220	-25°C / +50°C	-25°C / +50°C	25	45	IP65	0.54	2)
5772085270							
5772085280							
5772085220							
5772085302	-25°C / +50°C	-25°C / +50°C	-	-	-	-	2); 3); 5)
R412004091	-10°C / +50°C	-10°C / +50°C	25	45	IP65	0.54	1); 6)
R412004092	-10°C / +50°C	-10°C / +50°C	25	45	IP65	0.54	2); 6)
5772960220	-25°C / +50°C	-25°C / +50°C	25	45	IP65	0.54	1)
5772965302	-25°C / +50°C	-25°C / +50°C	-	-	-	-	1); 3)

MO = Manual override
 1) Pilot: internal
 2) Pilot: External
 3) Basic valve without coil
 4) Higher voltage tolerance
 5) ATEX optional
 6) ATEX certified
 Seals: Acrylonitrile Butadiene Rubber
 Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Electrically operated
5/2-directional valve, Series CD07

- ▶ Q_n = 1200 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/4
 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without ▶ single solenoid



00134143

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip, PRS strip
Working pressure min./max.	See table below
Control pressure min./max.	3 bar / 10 bar
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust
Connector standard	EN 175301-803:2006
Degree of protection with connection	See table below
Compatibility index	Protected against polarity reversal
Duty cycle	See table below
Weight	100 %
	See table below

	MO	Compressed air connection					Operating voltage		Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz	
		G 1/4	G 1/4	G 1/4	-	M5	24 V -	- 230 V	5776070220 5776075280
		G 1/4	G 1/4	G 1/4	G 1/8	M5	24 V -	- 230 V	5776080220 5776085280
		G 1/4	G 1/4	G 1/4	-	M5	-	-	5776075302
		G 1/4	G 1/4	G 1/4	G 1/8	M5	-	-	5776085302
		G 1/4	G 1/4	G 1/4	-	M5	24 V 96 V	-	R412004093 5776070360
		G 1/4	G 1/4	G 1/4	G 1/8	M5	-	110 V	5776085270
		G 1/4	G 1/4	G 1/4	-	M5	24 V	-	5776970220
	-	G 1/4	G 1/4	G 1/4	-	M5	24 V	-	5776980220

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value			Working pressure min./max.
			AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Q _n	Q _n 1>2	Q _n 2>3	
	AC 60 Hz	24 V DC	[VA]	[VA]	[VA]	[VA]	[l/min]			[bar]
5776070220	-	2.1	-	-	-	-	1200	1200	1200	3 / 10
5776075280	230 V	-	4.8	4.1	6.9	5.8				

Valve systems ▶ Electrically operated
5/2-directional valve, Series CD07

▶ Qn = 1200 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/4
 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without ▶ single solenoid

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value			Working pressure min./max.
			AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1▶2	Qn 2▶3	
	AC 60 Hz	24 V DC	[VA]	[VA]	[VA]	[VA]	[l/min]			[bar]
5776080220	-	2.1	-	-	-	-	1200	1200	1200	-0.95 / 10
5776085280	230 V	-	4.8	4.1	6.9	5.8	1200	1200	1200	3 / 10
5776075302	-	-	-	-	-	-	1200	1200	1200	-0.95 / 10
5776085302	-	-	-	-	-	-	1200	1200	1200	-0.95 / 10
R412004093	-	2.1	-	-	-	-	1200	1200	1200	3 / 10
5776070360	-	5.8	-	-	-	-	1200	1200	1200	3 / 10
5776085270	110 V	-	4.3	3.3	6.8	5.7	1200	1200	1200	-0.95 / 10
5776970220	-	2.1	-	-	-	-	1200	1200	1200	3 / 10
5776980220	-	2.1	-	-	-	-	1200	1200	1200	3 / 10

Part No.	Ambient temperature min./max.	Medium temperature min./max.	Switch-on time	Switch-off time	Compatibility index	Protection class	Weight	Note
	[°C]	[°C]	[ms]	[ms]			[kg]	
5776070220 5776075280	-25°C / +50°C	-25°C / +50°C	25	45	13, 14	IP65	0.57	2)
5776080220 5776085280	-25°C / +50°C	-25°C / +50°C	25	45	13, 14	IP65	0.57	3)
5776075302	-25°C / +50°C	-25°C / +50°C	-	-	13, 14	-	-	2); 4); 5)
5776085302	-25°C / +50°C	-25°C / +50°C	-	-	13, 14	-	-	3); 4); 5)
R412004093	-10°C / +50°C	-10°C / +50°C	25	45	13, 14	IP65	0.57	2); 6)
5776070360	-25°C / +50°C	-25°C / +50°C			14			2)
5776085270	-25°C / +50°C	-25°C / +50°C	25	45	14	IP65	0.57	3)
5776970220	-25°C / +50°C	-25°C / +50°C	25	45	14, 14	IP65	0.57	1); 2)
5776980220	-25°C / +50°C	-25°C / +50°C	25	45	14	IP65	0.57	2)

MO = Manual override

1) Nickel-plated armature guide (only Suitable for DC variant), i.e. the base must not be equipped with AC coils.

2) Pilot: internal

3) Pilot: External

4) Basic valve without coil

5) ATEX optional

6) ATEX certified

Seals: Acrylonitrile Butadiene Rubber

Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

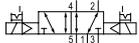
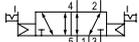
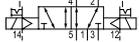
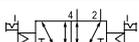
Valve systems ▶ Electrically operated
5/2-directional valve, Series CD07

▶ Qn = 1200 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/4
 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent ▶ double solenoid



00134144

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip, PRS strip
Working pressure min./max.	See table below
Control pressure min./max.	2 bar / 10 bar
Ambient temperature min./max.	-25 °C / +50 °C
Medium temperature min./max.	-25 °C / +50 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust
Connector standard	EN 175301-803:2006
Degree of protection with connection	See table below Protected against polarity reversal
Compatibility index	13, 14
Duty cycle	100 %
Weight	See table below

	MO	Compressed air connection					Operating voltage		Part No.	
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz		
		G 1/4	G 1/4	G 1/4	-	M5	24 V	-	5776270220	
							24 V	-		5776272220
							-	110 V		5776275270
							-	230 V		5776275280
							-	24 V		5776275220
		G 1/4	G 1/4	G 1/4	-	M5	-	-	5776275302	
							-	-		
		G 1/4	G 1/4	G 1/4	G 1/8	M5	24 V	-	5776280220	
							-	110 V		5776285270
							-	230 V		5776285280
		G 1/4	G 1/4	G 1/4	G 1/8	M5	-	-	5776285302	

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value			Working pressure min./max.
			24 V DC	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1▶2	
	AC 60 Hz	24 V DC	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1▶2	Qn 2▶3	
		[W]	[VA]	[VA]	[VA]	[VA]	[l/min]			[bar]
5776270220	-	2.1	-	-	-	-				
5776272220	-	4.5	-	-	-	-				
5776275270	110 V	-	4.3	3.3	6.8	5.7	1200	1200	1200	2 / 10
5776275280	230 V	-	4.8	4.1	6.9	5.8				
5776275220	24 V	-	4.3	3.2	6.9	5.6				
5776275302	-	-	-	-	-	-	1200	1200	1200	2 / 10
5776280220	-	2.1	-	-	-	-				
5776285270	110 V	-	4.3	3.3	6.8	5.7	1200	1200	1200	-0.95 / 10
5776285280	230 V	-	4.8	4.1	6.9	5.8				
5776285302	-	-	-	-	-	-	1200	1200	1200	-0.95 / 10

Valve systems ▶ Electrically operated

5/2-directional valve, Series CD07

- ▶ Qn = 1200 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/4
- ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent ▶ double solenoid

Part No.	Switch-on time	Switch-off time	Protection class	Weight	Note
	t_F	t_E			
	[ms]	[ms]		[kg]	
5776270220					1)
5776272220					1); 4)
5776275270	21	21	IP65	0.75	1)
5776275280					1)
5776275220					1)
5776275302	-	-	-	-	1); 3); 5)
5776280220					
5776285270	21	21	IP65	0.75	2)
5776285280					
5776285302	-	-	-	-	2); 3); 5)

MO = Manual override
 1) Pilot: internal
 2) Pilot: External
 3) Basic valve without coil
 4) Higher power consumption
 5) ATEX optional
 Seals: Acrylonitrile Butadiene Rubber
 Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

Valve systems ► Electrically operated

5/3-directional valve, Series CD07

- Qn = 960 - 1070 l/min ► Pilot valve width: 30 mm ► pipe connection ► compressed air connection output: G 1/4
 ► Electr. connection: Plug, EN 175301-803, form A ► Manual override: with detent ► double solenoid



00134145

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip, PRS strip
Working pressure min./max.	See table below
Control pressure min./max.	3 bar / 10 bar
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust
Connector standard	EN 175301-803:2006
Degree of protection with connection	See table below Protected against polarity reversal
Compatibility index	13, 14
Duty cycle	100 %
Weight	See table below

	MO	Compressed air connection					Operating voltage		Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz	
		G 1/4	G 1/4	G 1/4	-	M5	24 V - 110 V - 230 V - 24 V	-	577770220 577775270 577775280 577775220
		G 1/4	G 1/4	G 1/4	-	M5	-	-	577775302
		G 1/4	G 1/4	G 1/4	G 1/8	M5	-	-	5777955302
		G 1/4	G 1/4	G 1/4	-	M5	24 V - 230 V	-	5777720220 5777725280
		G 1/4	G 1/4	G 1/4	-	M5	-	-	5777725302
		G 1/4	G 1/4	G 1/4	G 1/8	M5	24 V - 230 V	-	R412003424 5777955280
		G 1/4	G 1/4	G 1/4	-	M5	24 V - 110 V - 230 V	-	5777760220 5777765270 5777765280
		G 1/4	G 1/4	G 1/4	-	M5	-	-	5777765302
		G 1/4	G 1/4	G 1/4	G 1/8	M5	-	-	5777945302
		G 1/4	G 1/4	G 1/4	-	M5	24 V - 230 V	-	5777710220 5777715280
		G 1/4	G 1/4	G 1/4	-	M5	-	-	5777715302
		G 1/4	G 1/4	G 1/4	-	M5	24 V - 230 V - 24 V	-	5777750220 5777755280 5777755302 5777700220

Valve systems ▶ Electrically operated

5/3-directional valve, Series CD07

- ▶ Qn = 960 - 1070 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/4
- ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent ▶ double solenoid

	MO	Compressed air connection					Operating voltage		Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz	
		G 1/4	G 1/4	G 1/4	-	M5	-	-	5777705302

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value		Working pressure min./max.	Ambient temperature min./max.
			AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn 1▶2	Qn 2▶3		
			[W]	[VA]	[VA]	[VA]	[l/min]	[bar]		
577770220	-	2.1	-	-	-	-	-	-	-	-
577775270	110 V	-	4.3	3.3	6.8	5.7	1070	950	3 / 10	+0°C / +50°C
577775280	230 V	-	4.8	4.1	6.9	5.8	-	-	-	-
577775220	24 V	-	4.3	3.2	6.9	5.6	-	-	-	-
577775302	-	-	-	-	-	-	1070	950	3 / 10	+0°C / +50°C
577795302	-	-	-	-	-	-	1070	950	-0.95 / 10	+0°C / +50°C
5777720220	-	2.1	-	-	-	-	-	-	-	-
5777725280	230 V	-	4.8	4.1	6.9	5.8	1070	950	3 / 10	-25°C / +50°C
5777725302	-	-	-	-	-	-	1070	950	3 / 10	-25°C / +50°C
R412003424	-	2.1	-	-	-	-	-	-	-	-
5777955280	230 V	-	4.8	4.1	6.9	5.8	1070	950	-0.95 / 10	+0°C / +50°C
5777760220	-	2.1	-	-	-	-	-	-	-	-
5777765270	110 V	-	4.3	3.3	6.8	5.7	1030	880	3 / 10	+0°C / +50°C
5777765280	230 V	-	4.8	4.1	6.9	5.8	-	-	-	-
5777765302	-	-	-	-	-	-	1030	880	3 / 10	+0°C / +50°C
5777945302	-	-	-	-	-	-	1030	880	-0.95 / 10	+0°C / +50°C
5777710220	-	2.1	-	-	-	-	-	-	-	-
5777715280	230 V	-	4.8	4.1	6.9	5.8	1030	880	3 / 10	-25°C / +50°C
5777715302	-	-	-	-	-	-	1030	880	3 / 10	-25°C / +50°C
5777750220	-	2.1	-	-	-	-	-	-	-	+0°C / +50°C
5777755280	230 V	-	4.8	4.1	6.9	5.8	960	900	3 / 10	+0°C / +50°C
5777755302	-	-	-	-	-	-	-	-	-	+0°C / +50°C
5777700220	-	2.1	-	-	-	-	-	-	-	-25°C / +50°C
5777705302	-	-	-	-	-	-	960	900	3 / 10	-25°C / +50°C

Valve systems ▶ Electrically operated

5/3-directional valve, Series CD07

- ▶ Qn = 960 - 1070 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/4
 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent ▶ double solenoid

Part No.	Medium temperature min./max.	Switch-on time	Switch-off time	Protection class	Weight	Note
		t_F	t_E			
	[°C]	[ms]	[ms]		[kg]	
577770220 577775270 577775280 577775220	+0°C / +50°C	25	55	IP65	0.72	1); 4)
577775302	+0°C / +50°C	-	-	-	-	1); 3); 4); 6)
577795302	+0°C / +50°C	-	-	-	-	2); 3); 4); 6)
5777720220 5777725280	-25°C / +50°C	25	55	IP65	0.72	1); 5)
5777725302	-25°C / +50°C	-	-	-	-	1); 3); 5); 6)
R412003424 5777955280	+0°C / +50°C	-	-	IP65	0.72	2); 4)
5777760220 5777765270 5777765280	+0°C / +50°C	25	55	IP65	0.72	1); 4)
5777765302	+0°C / +50°C	-	-	-	-	1); 3); 4); 6)
5777945302	+0°C / +50°C	-	-	-	-	2); 3); 4); 6)
5777710220 5777715280	-25°C / +50°C	25	55	IP65	0.72	1); 5)
5777715302	-25°C / +50°C	-	-	-	-	1); 3); 5); 6)
5777750220 5777755280 5777755302 5777700220 5777705302	+0°C / +50°C +0°C / +50°C +0°C / +50°C -25°C / +50°C -25°C / +50°C	25 25 - 25 -	55 55 - 55 -	IP65 IP65 - IP65 -	0.72 0.72 - 0.72 -	1); 4) 1); 4) 1); 3); 4); 6) 1); 4) 1); 3); 5); 6)

MO = Manual override

- 1) Pilot: internal
 - 2) Pilot: External
 - 3) Basic valve without coil
 - 4) Seals: Acrylonitrile Butadiene Rubber
 - 5) Seals: Polyurethane
 - 6) ATEX optional
- Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

Valve systems ▶ Electrically operated

3/2-directional valve, Series CD12

▶ Qn = 4000 l/min ▶ Pilot valve width: 30 mm ▶ NC, NO ▶ pipe connection ▶ compressed air connection output: G 1/2 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without detent ▶ single solenoid ▶ Qn = 3600 - 4100 l/min



00134156

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Control pressure min./max.	See table below
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust EN 175301-803:2006
Connector standard	
Degree of protection with connection	See table below
Compatibility index	See table below
Duty cycle	100 %
Weight	See table below

		MO	Compressed air connection					Operating voltage	Part No.
			Input	Output	Exhaust	Pilot connection	Pilot control exhaust		
	NC, NO		G 1/2	G 1/2	G 1/2	-	M5	24 V	5724550220 5724555270 5724555280
	NC, NO	-	G 1/2	G 1/2	G 1/2	-	-	-	5724555202
	NC, NO		G 1/2	G 1/2	G 1/2	G 1/8	M5	24 V	5724560220 5724565270 5724565280
	NC, NO	-	G 1/2	G 1/2	G 1/2	G 1/8	-	-	5724565202

Part No.	Operational voltage		Power consumption	Holding power		Switch-on power		Flow rate value			Working pressure min./max.
	AC 50 Hz	AC 60 Hz		AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1▶2	Qn 2▶3	
			24 V DC	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	[l/min]			[bar]
			[W]	[VA]	[VA]	[VA]	[VA]				
5724550220	-	-	2.1	-	-	-	-				
5724555270	110 V	110 V	-	4.3	3.3	6.8	5.7	4000	4000	4000	2 / 10
5724555280	230 V	230 V	-	4.4	3.5	6.9	6.2				
5724555202	-	-	-	-	-	-	-	4000	4000	4000	2 / 16
5724560220	-	-	2.1	-	-	-	-				
5724565270	110 V	110 V	-	4.3	3.3	6.8	5.7	4000	4000	4000	-0.95 / 16
5724565280	230 V	230 V	-	4.4	3.5	6.9	6.2				
5724565202	-	-	-	-	-	-	-	4000	4000	4000	-0.95 / 16

Valve systems ▶ Electrically operated
3/2-directional valve, Series CD12

▶ Qn = 4000 l/min ▶ Pilot valve width: 30 mm ▶ NC, NO ▶ pipe connection ▶ compressed air connection output: G 1/2 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without detent ▶ single solenoid ▶ Qn = 3600 - 4100 l/min

Part No.	Control pressure min./max.	Ambient temperature min./max.	Medium temperature min./max.	Switch-on time	Switch-off time	Compatibility index	Protection class	Weight	Note
	[bar]	[°C]	[°C]	t_F [ms]	t_E [ms]			[kg]	
5724550220 5724555270 5724555280	2 / 10	-25°C / +50°C	-25°C / +50°C	34	90	13, 14	IP65	0.85	2); 5)
5724555202	2 / 16	-25°C / +70°C	-25°C / +70°C	-	-	-	-	0.7	1); 2); 4); 6)
5724560220 5724565270 5724565280	2 / 10	-25°C / +50°C	-25°C / +50°C	34	90	13, 14	IP65	0.85	3); 5)
5724565202	2 / 16	-25°C / +70°C	-25°C / +70°C	-	-	-	-	0.7	1); 3); 4); 6)

MO = Manual override

1) temperature range for ATEX application: -10°C to 60°C

2) Pilot: internal

3) Pilot: External

4) Basic valve without pilot valve

5) Protected against polarity reversal

6) ATEX optional

Seals: Acrylonitrile Butadiene Rubber; Polyurethane

Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

Valve systems ▶ Electrically operated

5/2-directional valve, Series CD12

- ▶ Qn = 4100 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/2
- ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without detent ▶ single solenoid



00134157

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Control pressure min./max.	See table below
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust EN 175301-803:2006
Connector standard	
Degree of protection with connection	See table below
Compatibility index	See table below
Duty cycle	100 %
Weight	See table below

	MO	Compressed air connection					Operating voltage		Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz	
		G 1/2	G 1/2	G 1/2	-	M5	24 V	-	5725450220
							-	110 V	5725455270
							-	230 V	5725455280
	-	G 1/2	G 1/2	G 1/2	-	M5	-	-	5725455202
							-	-	5725455302
		G 1/2	G 1/2	G 1/2	-	M5	24 V	-	5725470220
							-	110 V	5725475270
							-	230 V	5725475280
	-	G 1/2	G 1/2	G 1/2	-	-	-	-	R412008096
		G 1/2	G 1/2	G 1/2	G 1/8	M5	24 V	-	5725480220
							-	110 V	5725485270
							-	230 V	5725485280
	-	G 1/2	G 1/2	G 1/2	G 1/8	-	-	-	5725485202

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value	Working pressure min./max.	Control pressure min./max.
			AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz			
	AC 60 Hz	24 V DC	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn		
		[W]	[VA]	[VA]	[VA]	[VA]	[l/min]	[bar]	[bar]
5725450220	-	2.1	-	-	-	-	-	-	-
5725455270	110 V	-	4.3	3.3	6.8	5.7	4100	2 / 10	2 / 10
5725455280	230 V	-	4.4	3.5	6.9	6.2			

Valve systems ▶ Electrically operated

5/2-directional valve, Series CD12

▶ Qn = 4100 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/2

▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without detent ▶ single solenoid

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value	Working pressure min./max.	Control pressure min./max.
			AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz			
	AC 60 Hz	24 V DC	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn		
		[W]	[VA]	[VA]	[VA]	[VA]	[l/min]	[bar]	[bar]
5725455202 5725455302	-	-	-	-	-	-	4100	2 / 16 2 / 10	2 / 16 2 / 10
5725470220 5725475270 5725475280	- 110 V 230 V	2.1 - -	- 4.3 4.4	- 3.3 3.5	- 6.8 6.9	- 5.7 6.2	4100	2 / 10	2 / 10
5725475202 R412008096	-	-	-	-	-	-	4100	2 / 16 2 / 10	2 / 16 2 / 10
5725480220 5725485270 5725485280 5725485202	- 110 V 230 V -	2.1 - - -	- 4.3 4.4 -	- 3.3 3.5 -	- 6.8 6.9 -	- 5.7 6.2 -	4100	-0.95 / 16	2 / 10
							4100	-0.95 / 16	2 / 10

Part No.	Ambient temperature min./max.	Medium temperature min./max.	Switch-on time	Switch-off time	Compatibility index	Protection class	Weight	Note
	[°C]	[°C]	[ms]	[ms]			[kg]	
5725450220 5725455270 5725455280	-25°C / +50°C	-25°C / +50°C	37	97	13, 14	IP65	1	3); 7)
5725455202 5725455302	-25°C / +70°C -25°C / +50°C	-25°C / +70°C -25°C / +50°C	-	-	-	-	0.85	1); 3); 5); 8) 3); 6); 8)
5725470220 5725475270 5725475280	-15°C / +50°C	-15°C / +50°C	37	97	13, 14	IP65	1	3); 7)
5725475202 R412008096	-15°C / +70°C -15°C / +50°C	-15°C / +70°C -15°C / +50°C	-	-	- 13, 14	- -	0.85	1); 3); 5); 8) 2); 3); 6); 8)
5725480220 5725485270 5725485280 5725485202	-15°C / +50°C -15°C / +70°C	-15°C / +50°C -15°C / +70°C	37 -	97 97	13, 14 -	IP65 -	1 1	4); 7) 4); 5); 8)

MO = Manual override

1) temperature range for ATEX application: -10°C to 60°C

2) Exhaust cap

3) Pilot: internal

4) Pilot: External

5) Basic valve without pilot valve

6) Basic valve without coil

7) Protected against polarity reversal

8) ATEX optional

Seals: Acrylonitrile Butadiene Rubber; Polyurethane

Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

Valve systems ▶ Electrically operated

5/2-directional valve, Series CD12

- ▶ Qn = 4100 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/2
- ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without detent ▶ double solenoid



00134158

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Control pressure min./max.	See table below
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust EN 175301-803:2006
Connector standard	
Compatibility index	See table below
Duty cycle	100 %
Weight	See table below

	MO	Compressed air connection					Operating voltage		Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz	
		G 1/2	G 1/2	G 1/2	-	-	-	-	R412008097
		G 1/2	G 1/2	G 1/2	-	M5	24 V	-	5725550220
		G 1/2	G 1/2	G 1/2	-	M5	-	110 V 230 V	5725555270 5725555280
	-	G 1/2	G 1/2	G 1/2	-	-	-	-	5725555202
		G 1/2	G 1/2	G 1/2	G 1/8	M5	24 V - - - -	- 110 V 230 V	5725560220 5725565270 5725565280
	-	G 1/2	G 1/2	G 1/2	G 1/8	-	-	-	5725565202

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value	Working pressure min./max.	Control pressure min./max.
			AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz			
	AC 60 Hz	24 V DC	[VA]	[VA]	[VA]	[VA]	Qn	[bar]	[bar]
		[W]	[VA]	[VA]	[VA]	[VA]	[l/min]		
R412008097	-	-	-	-	-	-	4100	2 / 10	2 / 10
5725550220	-	2.1	-	-	-	-	4100	2 / 10	2 / 10
5725555270	110 V	-	4.3	3.3	6.8	5.7	4100	2 / 10	2 / 10
5725555280	230 V	-	4.4	3.5	6.9	6.2	4100	2 / 10	2 / 10
5725555202	-	-	-	-	-	-	4100	2 / 16	2 / 16
5725560220	-	2.1	-	-	-	-	4100	-0.95 / 16	2 / 10
5725565270	110 V	-	4.3	3.3	6.8	5.7	4100	-0.95 / 16	2 / 10
5725565280	230 V	-	4.4	3.5	6.9	6.2	4100	-0.95 / 16	2 / 10

Valve systems ► Electrically operated

5/2-directional valve, Series CD12

► Qn = 4100 l/min ► Pilot valve width: 30 mm ► pipe connection ► compressed air connection output: G 1/2
 ► Electr. connection: Plug, EN 175301-803, form A ► Manual override: with detent, without detent ► double solenoid

Part No.	Operating voltage	Power consumption	Holding power		Switch-on power		Flow rate value	Working pressure min./max.	Control pressure min./max.
			AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz			
	AC 60 Hz	24 V DC	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn		
		[W]	[VA]	[VA]	[VA]	[VA]	[l/min]	[bar]	[bar]
5725565202	-	-	-	-	-	-	4100	-0.95 / 16	2 / 16

Part No.	Ambient temperature min./max.	Medium temperature min./max.	Switch-on time	Switch-off time	Compatibility index	Protection class	Weight	Note
	[°C]	[°C]	[ms]	[ms]			[kg]	
R412008097	-25°C / +50°C	-25°C / +50°C	-	-	13, 14	-	0.9	1); 2); 4); 7)
5725550220	-25°C / +50°C	-25°C / +50°C	36	36	13, 14	IP65	1.2	2); 6)
5725555270	-25°C / +50°C	-25°C / +50°C	36	36	13, 14	IP65	1.2	2); 6)
5725555280	-25°C / +50°C	-25°C / +50°C	36	36	13, 14	IP65	1.2	2); 6)
5725555202	-25°C / +70°C	-25°C / +70°C	-	-	-	-	0.9	2); 5); 7)
5725560220	-25°C / +50°C	-25°C / +50°C	36	36	13, 14	IP65	1.2	3); 6)
5725565270	-25°C / +50°C	-25°C / +50°C	36	36	13, 14	IP65	1.2	3); 6)
5725565280	-25°C / +50°C	-25°C / +50°C	36	36	13, 14	IP65	1.2	3); 6)
5725565202	-25°C / +70°C	-25°C / +70°C	-	-	-	-	0.9	3); 5); 7)

MO = Manual override

1) Exhaust cap

2) Pilot: internal

3) Pilot: External

4) Basic valve without coil

5) Basic valve without pilot valve

6) Protected against polarity reversal

7) ATEX optional

Seals: Acrylonitrile Butadiene Rubber; Polyurethane

Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

Valve systems ▶ Electrically operated

5/3-directional valve, Series CD12

▶ Qn = 3600 - 4100 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/2 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without detent ▶ double solenoid



00134159

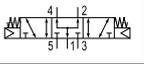
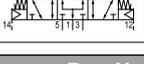
Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	See table below
Control pressure min./max.	See table below
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1 with directional pilot air exhaust EN 175301-803:2006
Connector standard	
Degree of protection with connection	See table below
Compatibility index	See table below
Duty cycle	100 %
Weight	See table below

	MO	Compressed air connection					Operating voltage		Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz	
		G 1/2	G 1/2	G 1/2	-	M5	24 V	-	5725650220
						-	24 V	-	5725650920
						M5	-	110 V	5725655270
						M5	-	230 V	5725655280
-	-	230 V	5725655980						
	-	G 1/2	G 1/2	G 1/2	-	-	-	5725655202	
		G 1/2	G 1/2	G 1/2	-	M5	-	R412008098	
		G 1/2	G 1/2	G 1/2	G 1/8	M5	24 V	-	R412000127
-	-	G 1/2	G 1/2	G 1/2	G 1/8	-	-	110 V	R412000148
-	-	G 1/2	G 1/2	G 1/2	G 1/8	-	-	230 V	R412000149
		G 1/2	G 1/2	G 1/2	-	M5	24 V	-	R412000224
-	-	G 1/2	G 1/2	G 1/2	-	-	-	110 V	R412000225
-	-	G 1/2	G 1/2	G 1/2	-	-	-	230 V	R412000230
		G 1/2	G 1/2	G 1/2	G 1/8	M5	24 V	-	5725680220
-	-	G 1/2	G 1/2	G 1/2	G 1/8	-	-	110 V	5725685270
-	-	G 1/2	G 1/2	G 1/2	G 1/8	-	-	230 V	5725685280
	-	G 1/2	G 1/2	G 1/2	G 1/8	-	-	-	5725685202

Valve systems ► Electrically operated

5/3-directional valve, Series CD12

► Qn = 3600 - 4100 l/min ► Pilot valve width: 30 mm ► pipe connection ► compressed air connection output: G 1/2 ► Electr. connection: Plug, EN 175301-803, form A ► Manual override: with detent, without detent ► double solenoid

	MO	Compressed air connection					Operating voltage		Part No.
		Input	Output	Exhaust	Pilot connection	Pilot control exhaust	DC	AC 50 Hz	
		G 1/2	G 1/2	G 1/2	-	M5	24 V	-	R412000219
							-	110 V	R412000220
							-	230 V	R412000221
	-	G 1/2	G 1/2	G 1/2	-	-	-	-	R412000222
		G 1/2	G 1/2	G 1/2	G 1/8	M5	24 V	-	R412000153
							-	110 V	R412000154
							-	230 V	R412000157
	-	G 1/2	G 1/2	G 1/2	G 1/8	-	-	-	R412000160

Part No.	Operational voltage	Power consumption	Holding power			Switch-on power		Flow rate value			Working pressure min./max.	
			AC 60 Hz	24 V DC	AC 50 Hz	AC 60 Hz	AC 50 Hz	AC 60 Hz	Qn	Qn 1►2		Qn 2►3
5725650220	-	2.1	-	-	-	-	-	-	-	-	-	
5725650920	-	2.1	-	-	-	-	-	-	-	-	-	
5725655270	110 V	-	4.3	3.3	6.8	5.7	3800	3800	3800	3 / 10		
5725655280	230 V	-	4.4	3.5	6.9	6.2	-	-	-	-		
5725655980	230 V	-	4.4	3.5	6.9	6.2	-	-	-	-		
5725655202	-	-	-	-	-	-	3800	3800	3800	3 / 16		
R412008098	-	-	-	-	-	-	3800	3800	3800	3 / 10		
R412000127	-	2.1	-	-	-	-	-	-	-	-		
R412000148	110 V	-	4.3	3.3	6.8	5.7	3800	3800	3800	-0.95 / 16		
R412000149	230 V	-	4.4	3.5	6.9	6.2	-	-	-	-		
R412000151	-	-	-	-	-	-	3800	3800	3800	-0.95 / 16		
R412000224	-	2.1	-	-	-	-	-	-	-	-		
R412000225	110 V	-	4.3	3.3	6.8	5.7	-	3600	4100	3 / 10		
R412000230	230 V	-	4.4	3.5	6.9	6.2	-	-	-	-		
R412000237	-	-	-	-	-	-	-	3600	4100	3 / 16		
5725680220	-	2.1	-	-	-	-	-	-	-	-		
5725685270	110 V	-	4.3	3.3	6.8	5.7	-	3600	4100	-0.95 / 16		
5725685280	230 V	-	4.4	3.5	6.9	6.2	-	-	-	-		
5725685202	-	-	-	-	-	-	-	3600	4100	-0.95 / 16		
R412000219	-	2.1	-	-	-	-	-	-	-	-		
R412000220	110 V	-	4.3	3.3	6.8	5.7	-	4100	3800	3 / 10		
R412000221	230 V	-	4.4	3.5	6.9	6.2	-	-	-	-		
R412000222	-	-	-	-	-	-	-	4100	3800	3 / 16		
R412000153	-	2.1	-	-	-	-	-	-	-	-		
R412000154	110 V	-	4.3	3.3	6.8	5.7	-	4100	3800	-0.95 / 16		
R412000157	230 V	-	4.4	3.5	6.9	6.2	-	-	-	-		
R412000160	-	-	-	-	-	-	-	4100	3800	-0.95 / 16		

Valve systems ▶ Electrically operated
5/3-directional valve, Series CD12

▶ Qn = 3600 - 4100 l/min ▶ Pilot valve width: 30 mm ▶ pipe connection ▶ compressed air connection output: G 1/2 ▶ Electr. connection: Plug, EN 175301-803, form A ▶ Manual override: with detent, without detent ▶ double solenoid

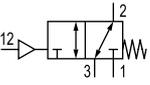
Part No.	Control pressure min./max.	Ambient temperature min./max.	Medium temperature min./max.	Switch-on time	Switch-off time	Compatibility index	Protection class	Weight	Note
	[bar]	[°C]	[°C]	t_F [ms]	t_E [ms]			[kg]	
5725650220									2); 6)
5725650920									1); 2); 6)
5725655270	3 / 10	-15°C / +50°C	-15°C / +50°C	37	97	13, 14	IP65	1.3	2); 6)
5725655280									2); 6)
5725655980									1); 2); 6)
5725655202	3 / 16	-15°C / +70°C	-15°C / +70°C	-	-	-	-	1	2); 4); 7)
R412008098	3 / 10	-15°C / +50°C	-15°C / +50°C	-	-	13, 14	-	1	1); 2); 5); 7)
R412000127									
R412000148	3 / 10	-15°C / +50°C	-15°C / +50°C	37	97	13, 14	IP65	1.3	3); 6)
R412000149									
R412000151	3 / 16	-15°C / +70°C	-15°C / +70°C	-	-	-	-	1	3); 4); 7)
R412000224									
R412000225	3 / 10	-15°C / +50°C	-15°C / +50°C	37	97	13, 14	IP65	1.3	2); 6)
R412000230									
R412000237	3 / 16	-15°C / +70°C	-15°C / +70°C	-	-	-	-	1	2); 4); 7)
5725680220									
5725685270	3 / 10	-15°C / +50°C	-15°C / +50°C	37	97	13, 14	IP65	1.3	3); 6)
5725685280									
5725685202	3 / 16	-15°C / +70°C	-15°C / +70°C	-	-	-	-	1	3); 4); 7)
R412000219									
R412000220	3 / 10	-15°C / +50°C	-15°C / +50°C	37	97	13, 14	IP65	1.3	2); 6)
R412000221									
R412000222	3 / 16	-15°C / +70°C	-15°C / +70°C	-	-	-	-	1	2); 4); 7)
R412000153									
R412000154	3 / 10	-15°C / +50°C	-15°C / +50°C	37	97	13, 14	IP65	1.3	3); 6)
R412000157									
R412000160	3 / 16	-15°C / +70°C	-15°C / +70°C	-	-	-	-	1	3); 4); 7)

MO = Manual override
 1) Exhaust cap
 2) Pilot: internal
 3) Pilot: External
 4) Basic valve without pilot valve
 5) Basic valve without coil
 6) Protected against polarity reversal
 7) ATEX optional
 Seals: Acrylonitrile Butadiene Rubber; Polyurethane
 Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

Valve systems ▶ Pneumatically operated
3/2-directional valve, Series CD04
▶ Qn = 900 l/min ▶ pipe connection ▶ compressed air connection output: G 1/8


00134137

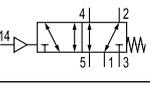
Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 10 bar
Control pressure min./max.	3.5 bar / 10 bar
Ambient temperature min./max.	-15°C / +65°C
Medium temperature min./max.	-15°C / +65°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1

		Compressed air connection				Flow rate value			Weight	Part No.
		Input	Output	Exhaust	Pilot connection	Qn	Qn	Qn		
							1▶2	2▶3		
						[l/min]		[kg]		
	NO/NC	G 1/8	G 1/8	G 1/8	G 1/8	900	900	900	0.29	5710200100
Nominal flow Qn at 6 bar and Δp = 1 bar										

5/2-directional valve, Series CD04
▶ Qn = 900 l/min ▶ pipe connection ▶ compressed air connection output: G 1/8 - M10x1 ▶ Single air pilot


00134138

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip
Working pressure min./max.	-0.95 bar / 10 bar
Control pressure min./max.	3.5 bar / 10 bar
Ambient temperature min./max.	-15°C / +65°C
Medium temperature min./max.	-15°C / +65°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³

	version pneumatic port	Compressed air connection				Flow rate value			Weight	Part No.
		Input	Output	Exhaust	Pilot connection	Qn	Qn	Qn		
							1▶2	2▶3		
						[l/min]		[kg]		
	according to ISO 228-1	G 1/8	G 1/8	G 1/8	G 1/8	900	900	900	0.31	5710300100
	-	M10x1	M10x1	M10x1	M10x1					R412012543
Nominal flow Qn at 6 bar and Δp = 1 bar										

Valve systems ▶ Pneumatically operated

5/2-directional valve, Series CD04

▶ Qn = 900 l/min ▶ pipe connection ▶ compressed air connection output: G 1/8 - M10x1 ▶ double air pilot



00134139

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip
Working pressure min./max.	-0.95 bar / 10 bar
Control pressure min./max.	2 bar / 10 bar
Ambient temperature min./max.	-15°C / +65°C
Medium temperature min./max.	-15°C / +65°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 1 mg/m³

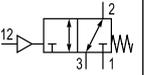
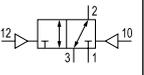
	version pneumatic port	Compressed air connection				Flow rate value			Weight	Part No.
		Input	Output	Exhaust	Pilot connection	Qn	Qn 1▶2	Qn 2▶3		
						[l/min]			[kg]	
	according to ISO 228-1	G 1/8	G 1/8	G 1/8	G 1/8	900	900	900	0.3	5710301100
	-	M10x1	M10x1	M10x1	M10x1					R412008116

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Pneumatically operated
3/2-directional valve, Series CD07
▶ Qn = 1400 l/min ▶ pipe connection ▶ compressed air connection output: G 1/4 ▶ Suitable for ATEX


00134148

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 10 bar
Control pressure min./max.	See table below
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³

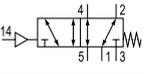
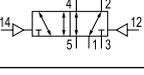
	version pneumatic port	Compressed air connection					Flow rate value			Control pressure min./max.	Weight	Part No.
		Input	Output	Exhaust	Pilot connection	Qn	Qn 1>2	Qn 2>3	[l/min]			
	NO/NC	according to ISO 228-1	G 1/4	G 1/4	G 1/4	G 1/8	1400	1400	1400	3 / 10	0.4	5710400100
	NO/NC	according to ISO 228-1	G 1/4	G 1/4	G 1/4	G 1/8	1400	1400	1400	2 / 10	0.4	5710401100

Nominal flow Qn at 6 bar and Δp = 1 bar

5/2-directional valve, Series CD07
▶ Qn = 1200 l/min ▶ pipe connection ▶ compressed air connection output: G 1/4 ▶ Suitable for ATEX


00134149

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip, PRS strip
Working pressure min./max.	-0.95 bar / 10 bar
Control pressure min./max.	See table below
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³

	version pneumatic port	Compressed air connection				Flow rate value			Control pressure min./max.	Weight	Part No.
		Input	Output	Exhaust	Pilot connection	Qn	Qn 1>2	Qn 2>3			
	according to ISO 228-1	G 1/4	G 1/4	G 1/4	G 1/8	1200	1200	1200	3 / 10	0.5	5710500100
	according to ISO 228-1	G 1/4	G 1/4	G 1/4	G 1/8	1200	1200	1200	2 / 10	0.5	5710501100

1) Protected against dust
Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Pneumatically operated

5/2-directional valve, Series CD07

▶ Qn = 1200 l/min ▶ pipe connection ▶ compressed air connection output: G 1/4 ▶ cold-resistant ▶ Suitable for ATEX



00134149

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip, PRS strip
Working pressure min./max.	-0.95 bar / 10 bar
Control pressure min./max.	See table below
Ambient temperature min./max.	-40 °C / +70 °C
Medium temperature min./max.	-40 °C / +70 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Compressed air connection	according to ISO 228-1

	Compressed air connection				Flow rate value			Control pressure min./max. [bar]	Weight [kg]	Part No.
	Input	Output	Exhaust	Pilot connection	Qn	Qn 1▶2	Qn 2▶3			
	G 1/4	G 1/4	G 1/4	G 1/8	1200	1200	1200	3.5 / 10	0.5	5710500190
	G 1/4	G 1/4	G 1/4	G 1/8	1200	1200	1200	3 / 10	0.5	5710501190

Nominal flow Qn at 6 bar and Δp = 1 bar

5/3-directional valve, Series CD07

▶ Qn = 900 - 1070 l/min ▶ pipe connection ▶ compressed air connection output: G 1/4 ▶ Suitable for ATEX



00134150

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Mounting on manifold strip	P-strip, PRS strip
Working pressure min./max.	-0.95 bar / 10 bar
Control pressure min./max.	3 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Compressed air connection	according to ISO 228-1

	Compressed air connection				Flow rate value			Weight [kg]	Part No.
	Input	Output	Exhaust	Pilot connection	Qn	Qn 1▶2	Qn 2▶3		
	G 1/4	G 1/4	G 1/4	G 1/8	900	960	900	1.15	5710502100
	G 1/4	G 1/4	G 1/4	G 1/8	900	1030	880	1.15	5710502110
	G 1/4	G 1/4	G 1/4	G 1/8	900	1070	950	1.15	5710502120

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Pneumatically operated
3/2-directional valve, Series CD12
▶ Qn = 4000 l/min ▶ pipe connection ▶ compressed air connection output: G 1/2 ▶ Suitable for ATEX


00134160

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 16 bar
Control pressure min./max.	2 bar / 10 bar
Ambient temperature min./max.	-25 °C / +70 °C
Medium temperature min./max.	-25 °C / +70 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³

	Compressed air connection				Flow rate value			Weight	Part No.	
	Input	Output	Exhaust	Pilot connection	Qn	Qn 1▶2	Qn 2▶3			
	[l/min]									[kg]
	NO/NC	G 1/2	G 1/2	G 1/2	G 1/8	4000	4000	4000	0.71	5711100300
Nominal flow Qn at 6 bar and Δp = 1 bar										

5/2-directional valve, Series CD12
▶ Qn = 4100 l/min ▶ pipe connection ▶ compressed air connection output: G 1/2 ▶ Suitable for ATEX


00134161

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 16 bar
Control pressure min./max.	2 bar / 10 bar
Ambient temperature min./max.	See table below
Medium temperature min./max.	See table below
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³

	Compressed air connection				Flow rate value			Ambient temperature min./max.	Medium temperature min./max.	Weight	Part No.
	Input	Output	Exhaust	Pilot connection	Qn	Qn 1▶2	Qn 2▶3				
	[l/min]										
	G 1/2	G 1/2	G 1/2	G 1/8	4100	4100	4100	-25 °C / +70 °C	-25 °C / +70 °C	0.86	5711000100
	G 1/2	G 1/2	G 1/2	G 1/8	4100	4100	4100	-15 °C / +70 °C	-15 °C / +70 °C	0.86	5711000300
	G 1/2	G 1/2	G 1/2	G 1/8	4100	4100	4100	-25 °C / +70 °C	-25 °C / +70 °C	0.86	5711001100
Nominal flow Qn at 6 bar and Δp = 1 bar											

Valve systems ▶ Pneumatically operated

5/3-directional valve, Series CD12

▶ Qn = 3600 - 4100 l/min ▶ pipe connection ▶ compressed air connection output: G 1/2 ▶ Suitable for ATEX



00134162

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 16 bar
Control pressure min./max.	3 bar / 10 bar
Ambient temperature min./max.	-25 °C / +70 °C
Medium temperature min./max.	-25 °C / +70 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1

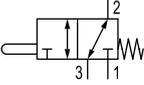
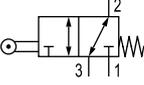
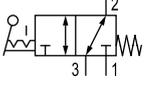
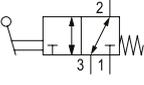
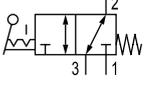
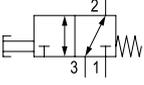
	Compressed air connection				Flow rate value			Weight	Part No.
	Input	Output	Exhaust	Pilot connection	Qn	Qn 1▶2	Qn 2▶3		
	[l/min]								
	G 1/2	G 1/2	G 1/2	G 1/8	3800	3800	3800	0.95	5711200050
	G 1/2	G 1/2	G 1/2	G 1/8	4100	3600	4100	0.95	5711200060
	G 1/2	G 1/2	G 1/2	G 1/8	3800	4100	3800	0.95	R414002380

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Mechanically operated
3/2-directional valve, Series CD04
▶ Qn= 900 l/min ▶ compressed air connection output: G 1/8


00134140

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 10 bar
Ambient temperature min./max.	-20 °C / +65 °C
Medium temperature min./max.	-20 °C / +65 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1

	Actuating element	Version	Compressed air connection			Qn	Qn 1 → 2	Qn 2 → 3	Part No.
			Input	Output	Exhaust				
						[l/min]	[l/min]	[l/min]	
	Plunger	NC/NO	G 1/8	G 1/8	G 1/8	900	900	900	5634000100
	Roller	NC/NO	G 1/8	G 1/8	G 1/8	900	900	900	5634010100 R412008117
	Hand lever, with detent, without detent	NC/NO	G 1/8	G 1/8	G 1/8	900	900	900	5634030100
	Hand lever	NC/NO	G 1/8	G 1/8	G 1/8	900	900	900	5634040100
	Rotary lever, with detent	NC/NO	G 1/8	G 1/8	G 1/8	900	900	900	5634050100
	Button	NC/NO	G 1/8	G 1/8	G 1/8	900	900	900	5634060100

Part No.	Actuating force Min.	Material: Housing	Material: Actuating control	Weight
		[N]		[kg]
5634000100	60	Die cast zinc; Polyamide, fiber-glass reinforced	Stainless steel	0.23
5634010100 R412008117	30	Die cast zinc; Polyamide, fiber-glass reinforced	Polyoxymethylene Stainless steel	0.29
5634030100	15	Die cast zinc; Polyamide, fiber-glass reinforced	Polyoxymethylene	0.32
5634040100	15	Die cast zinc; Polyamide, fiber-glass reinforced	-	0.29
5634050100	15	Die cast zinc; Polyamide, fiber-glass reinforced	Plastic; Stainless steel	0.5
5634060100	60	Die cast zinc; Polyamide, fiber-glass reinforced	Polyoxymethylene	0.25

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Mechanically operated

5/2-directional valve, Series CD04

▶ Qn= 900 l/min ▶ pipe connection ▶ compressed air connection output: G 1/8



00134141

Version	Spool valve, zero overlap not lockable
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 10 bar
Ambient temperature min./max.	-20°C / +65°C
Medium temperature min./max.	-20°C / +65°C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1

	Actuating element	Compressed air connection			Qn	Qn 1 → 2	Qn 2 → 3	Actuating force Min.	Material: Housing	Part No.
		Input	Output	Exhaust						
	Plunger	G 1/8	G 1/8	G 1/8	900	900	900	70	Die cast zinc; Polyamide, fiber-glass reinforced	5634200100
	Roller	G 1/8	G 1/8	G 1/8	900	900	900	35	Die cast zinc; Polyamide, fiber-glass reinforced	5634210100
	Hand lever, with detent, without detent	G 1/8	G 1/8	G 1/8	900	900	900	15	Die cast zinc; Polyamide, fiber-glass reinforced	5634230100
	Hand lever	G 1/8	G 1/8	G 1/8	900	900	900	60	Die cast zinc; Polyamide, fiber-glass reinforced	5634240100
	Rotary lever, with detent	G 1/8	G 1/8	G 1/8	900	900	900	20	Die cast zinc; Polyamide, fiber-glass reinforced	5634250100
	Button	G 1/8	G 1/8	G 1/8	900	900	900	70	Die cast zinc; Polyamide, fiber-glass reinforced	5634260100

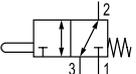
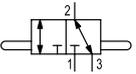
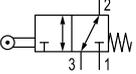
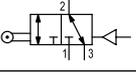
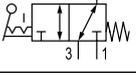
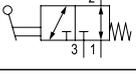
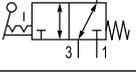
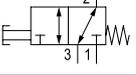
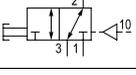
Part No.	Material: Actuating control	Weight
		[kg]
5634200100	Stainless steel	0.3
5634210100	Polyoxymethylene	0.35
5634230100	Polyoxymethylene	0.38
5634240100	Aluminum	0.31
5634250100	Plastic; Stainless steel	0.56
5634260100	Polyoxymethylene	0.32

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Mechanically operated
3/2-directional valve, Series CD07
▶ Qn= 1400 l/min ▶ pipe connection ▶ compressed air connection output: G 1/4 ▶ Suitable for ATEX


00134151

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1

	Actuating element	Version	Compressed air connection				Qn	Qn 1 → 2	Qn 2 → 3	Part No.
			Input	Output	Exhaust	Pilot connection				
							[l/min]	[l/min]	[l/min]	
	Plunger	NC/NO	G 1/4	G 1/4	G 1/4	-	1400	1400	1400	5634400100
	Plunger	NC/NO	G 1/4	G 1/4	G 1/4	-	1400	1400	1400	5634409010
	Roller	NC/NO	G 1/4	G 1/4	G 1/4	-	1400	1400	1400	5634410100
	Roller	NC/NO	G 1/4	G 1/4	G 1/4	G 1/8	1400	1400	1400	5634411100
	Hand lever, with detent, without detent	NC/NO	G 1/4	G 1/4	G 1/4	-	1400	1400	1400	5634430100
	Hand lever	NC/NO	G 1/4	G 1/4	G 1/4	-	1400	1400	1400	5634440100
	Lever, horizontal, with detent	NC/NO	G 1/4	G 1/4	G 1/4	-	1400	1400	1400	5634450100
	Button	NC/NO	G 1/4	G 1/4	G 1/4	-	1400	1400	1400	5634460100
	Button	NC/NO	G 1/4	G 1/4	G 1/4	G 1/8	1400	1400	1400	5634461100

Part No.	Actuating force Min.	Control pressure min./max.	Material: Housing	Material: Actuating control	Weight
	[N]	[bar]			[kg]
5634400100	70	-	Die cast zinc; Polyamide, fiber-glass reinforced	Stainless steel	0.45
5634409010	40	-	Die cast zinc	Stainless steel	0.45

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Mechanically operated
3/2-directional valve, Series CD07

▶ Qn= 1400 l/min ▶ pipe connection ▶ compressed air connection output: G 1/4 ▶ Suitable for ATEX

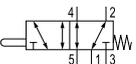
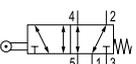
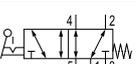
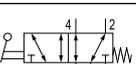
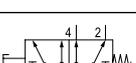
Part No.	Actuating force Min.	Control pressure min./max.	Material: Hous- ing	Material: Actuating control	Weight
	[N]	[bar]			[kg]
5634410100	40	-	Die cast zinc; Poly- amide, fiber-glass reinforced	Stainless steel	0.5
5634411100	40	2 / 10	Die cast zinc	Stainless steel	0.5
5634430100	20	-	Die cast zinc; Poly- amide, fiber-glass reinforced	Polyoxymethylene	0.53
5634440100	15	-	Die cast zinc; Poly- amide, fiber-glass reinforced	Polyoxymethylene	0.5
5634450100	15	-	Die cast zinc; Poly- amide, fiber-glass reinforced	Polyoxymethylene	0.55
5634460100	70	-	Die cast zinc; Poly- amide, fiber-glass reinforced	Polyoxymethylene	0.45
5634461100	40	2 / 10	Die cast zinc; Poly- amide, fiber-glass reinforced	Polyoxymethylene	0.45

 Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

Valve systems ▶ Mechanically operated
5/2-directional valve, Series CD07
▶ Qn= 1200 l/min ▶ pipe connection ▶ compressed air connection output: G 1/4 ▶ Suitable for ATEX


00134152

Version	Spool valve, zero overlap
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1

	Actuating element	Compressed air connection				Qn	Qn 1 → 2	Qn 2 → 3	Actuating force Min.	Part No.
		Input	Output	Exhaust	Pilot connection					
	Plunger	G 1/4	G 1/4	G 1/4	-	1200	1200	1200	70	5634600100
	Roller	G 1/4	G 1/4	G 1/4	-	1200	1200	1200	40	5634610100
	Hand lever, with detent, without detent	G 1/4	G 1/4	G 1/4	-	1200	1200	1200	20	5634630100
	Hand lever	G 1/4	G 1/4	G 1/4	-	1200	1200	1200	15	5634640100
	Rotary lever, with detent	G 1/4	G 1/4	G 1/4	-	1200	1200	1200	15	5634650100
	Button	G 1/4	G 1/4	G 1/4	-	1200	1200	1200	70	5634660100
	Button	G 1/4	G 1/4	G 1/4	G 1/8	1200	1200	1200	80	5634669200

Part No.	Control pressure min./max.	Material: Housing	Material: Actuating control	Weight	Fig.
	[bar]			[kg]	
5634600100	-	Die cast zinc; Polyamide, fiber-glass reinforced	Stainless steel	0.54	Fig. 1
5634610100	-	Die cast zinc; Polyamide, fiber-glass reinforced	Stainless steel	0.59	Fig. 2
5634630100	-	Die cast zinc; Polyamide, fiber-glass reinforced	Polyoxymethylene	0.62	Fig. 3
5634640100	-	Die cast zinc; Polyamide, fiber-glass reinforced	Polyoxymethylene	0.59	Fig. 4
5634650100	-	Die cast zinc; Polyamide, fiber-glass reinforced	Polyoxymethylene	0.64	Fig. 5
5634660100	-	Die cast zinc; Polyamide, fiber-glass reinforced	Polyoxymethylene	0.54	Fig. 6
5634669200	5 / 10	Die cast zinc	Polyoxymethylene	0.54	Fig. 7

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Mechanically operated

5/2-directional valve, Series CD07

▶ Qn= 1200 l/min ▶ pipe connection ▶ compressed air connection output: G 1/4 ▶ Suitable for ATEX



00134154

Version	Spool valve, zero overlap
Actuating element	Pedal
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1

Materials:	
Housing	Die cast zinc; Polyamide, fiber-glass reinforced
Seals	Acrylonitrile Butadiene Rubber
Actuating element	Aluminum

	Compressed air connection			Qn	Qn	Qn	Actuating force Min.	Weight	Part No.
	Input	Output	Exhaust		1 → 2	2 → 3			
				[l/min]	[l/min]	[l/min]			
	G 1/4	G 1/4	G 1/4	1200	1200	1200	40	0.76	5634670100
Nominal flow Qn at 6 bar and Δp = 1 bar									



00134155

Version	Spool valve, zero overlap not lockable
Actuating element	Pedal, with detent
Sealing principle	Soft sealing
Working pressure min./max.	-0.95 bar / 10 bar
Ambient temperature min./max.	-25 °C / +80 °C
Medium temperature min./max.	-25 °C / +80 °C
Medium	Compressed air
Max. particle size	50 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Compressed air connection	according to ISO 228-1

	Compressed air connection			Qn	Qn	Qn	Actuating force Min.	Weight	Part No.
	Input	Output	Exhaust		1 → 2	2 → 3			
				[l/min]	[l/min]	[l/min]			
	G 1/4	G 1/4	G 1/4	1200	1200	1200	40	1.56	5634695100
Nominal flow Qn at 6 bar and Δp = 1 bar									

Valve systems ▶ Check-choke valves
Series CC01

▶ Qn = 60 - 875 l/min ▶ direction of throttle: 1 → 2 ▶ push-in fitting - push-in fitting



00117377

 Working pressure min./max.
 Ambient temperature min./max.
 Medium temperature min./max.
 Medium

 0.5 bar / 10 bar
 +0°C / +60°C
 +0°C / +60°C
 Compressed air

	Port 1	Port 2	Qn 1 → 2	Weight	Delivery quantity	Part No.
			[l/min]	[kg]	[Piece]	
	Ø 4	Ø 4	60	0.013	5	R412005454
	Ø 6	Ø 6	135	0.028	5	R412005455
	Ø 8	Ø 8	200	0.041	5	R412005456
	Ø 10	Ø 10	550	0.069	2	R412005457
	Ø 12	Ø 12	875	0.114	2	R412005458

 Housing: Polybutyleneterephthalate
 Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

Valve systems ▶ Check-choke valves

Check-choke valve, Series CC04

▶ Qn = 70 - 1850 l/min ▶ direction of throttle: 2 → 1 ▶ exhaust air throttling ▶ push-in fitting - external thread

Working pressure min./max. 0.5 bar / 10 bar
 Ambient temperature min./max. +0°C / +60°C
 Medium temperature min./max. +0°C / +60°C
 Medium Compressed air



16400

	Port 1	Port 2	Throttle bore Ø	Qn 2 → 1	Weight	Part No.
			[mm]	[l/min]	[kg]	
	Ø 4	M5	2	70	0.005	R412010564
	Ø 6	M5	2	110	0.005	R412010565
	Ø 4	G 1/8	3.5	150	0.017	R412010568
	Ø 6	G 1/8	3.5	390	0.018	R412010569
	Ø 8	G 1/8	3.5	470	0.019	R412010570
	Ø 6	G 1/4	4.5	390	0.035	R412010571
	Ø 8	G 1/4	4.5	490	0.036	R412010572
	Ø 10	G 1/4	4.5	520	0.039	R412010573
	Ø 8	G 3/8	6.6	860	0.035	R412010574
	Ø 10	G 3/8	6.6	900	0.036	R412010575
	Ø 12	G 3/8	6.6	960	0.039	R412010576
	Ø 10	G 1/2	6.6	1530	0.045	R412010577
	Ø 12	G 1/2	6.6	1850	0.049	R412010578

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Check-choke valves
Check-choke valve, Series CC04
▶ Qn = 70 - 1950 l/min ▶ direction of throttle: 1 → 2 ▶ inlet-side throttling ▶ push-in fitting - external thread

Working pressure min./max. 0.5 bar / 10 bar
 Ambient temperature min./max. +0°C / +60°C
 Medium temperature min./max. +0°C / +60°C
 Medium Compressed air



16400

	Port 1	Port 2	Throttle bore Ø	Qn 1 → 2	Weight	Part No.
			[mm]	[l/min]	[kg]	
	Ø 4	M5	2	70	0.005	R412010581
	Ø 6	M5	2	110	0.005	R412010582
	Ø 4	G 1/8	3.5	150	0.017	R412010585
	Ø 6	G 1/8	3.5	390	0.018	R412010586
	Ø 8	G 1/8	3.5	470	0.019	R412010587
	Ø 6	G 1/4	4.5	390	0.035	R412010588
	Ø 8	G 1/4	4.5	490	0.036	R412010589
	Ø 10	G 1/4	4.5	520	0.039	R412010590
	Ø 8	G 3/8	6.6	870	0.035	R412010591
	Ø 10	G 3/8	6.6	1130	0.036	R412010592
	Ø 12	G 3/8	6.6	1210	0.039	R412010593
	Ø 10	G 1/2	6.6	1670	0.045	R412010594
	Ø 12	G 1/2	6.6	1950	0.049	R412010595

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Non-return valves

Non-return valve, Series QR1-ANR

▶ Qn = 280 - 900 l/min ▶ push-in fitting - external thread



00117393

Version
Working pressure min./max.
Ambient temperature min./max.
Medium temperature min./max.
Medium

Poppet valve
0.8 bar / 10 bar
+0°C / +60°C
+0°C / +60°C
Compressed air

	Port 1	Port 2	Qn 1 → 2 [l/min]	Weight [kg]	delivery unit [Piece]	Part No.
	Ø 4	G 1/8	280	0.01	5	R412005565
	Ø 6	G 1/8	600	0.013		R412005566
	Ø 6	G 1/4	600	0.02		R412005568
	Ø 8	G 1/4	900	0.021		R412005569
Housing: Brass, nickel-plated Seal: Acrylonitrile Butadiene Rubber Nominal flow Qn at 6 bar and Δp = 1 bar						

Valve systems ▶ Non-return valves

Non-return valve, QR1-SKR

▶ Qn = 280 - 2000 l/min ▶ push-in fitting - push-in fitting



00117394

Version
Working pressure min./max.
Ambient temperature min./max.
Medium temperature min./max.
Medium

Poppet valve
0.8 bar / 10 bar
+0°C / +60°C
+0°C / +60°C

	Port 1	Port 2	Qn 1 → 2 [l/min]	Weight [kg]	Note	delivery unit [Piece]	Part No.
	Ø 4	Ø 4	280	0.006	1)	5	R412005573
	Ø 6	Ø 6	600	0.009	1)	5	R412005574
	Ø 8	Ø 8	1800	0.014	1)	5	R412005575
	Ø 10	Ø 10	1800	0.018	2)	2	R412005576
	Ø 12	Ø 12	2000	0.033	2)	2	R412005577
	1) Housing: Polybutyleneterephthalate 2) Housing: Aluminum Seal: Acrylonitrile Butadiene Rubber Nominal flow Qn at 6 bar and Δp = 1 bar						

Valve systems ▶ Non-return valves

Non-return valve, Series NR01

▶ Qn = 40 - 3500 l/min ▶ internal thread - external thread ▶ thread-in



00130287

Version	Poppet valve
Working pressure min./max.	0.2 bar / 10 bar
Ambient temperature min./max.	-10°C / +70°C
Medium temperature min./max.	-10°C / +70°C
Medium	Compressed air

	Port 1	Port 2	Qn 1 → 2 [l/min]	Weight [kg]	Part No.
	M5	M5	40	0.006	0821003005
	G 1/8	G 1/8	920	0.02	0821003001
	G 1/4	G 1/4	1600	0.04	0821003002
	G 1/2	G 1/2	3500	0.09	0821003003

Housing: Brass, nickel-plated
 Seal: Acrylonitrile Butadiene Rubber
 Nominal flow Qn at 6 bar and Δp = 1 bar

Non-return valve, Series NR01

▶ Qn = 230 - 6200 l/min ▶ internal thread - internal thread ▶ installing in piping



00136662

Version	Poppet valve
Medium	Compressed air

	Port 1	Port 2	Qn 1 → 2 [l/min]	Working pressure min./max. [bar]	Min./max. ambient tempera- ture [°C]	Medium tempera- ture min./max. [°C]	Weight [kg]	Part No.
	G 1/8	G 1/8	230	0.5 / 15	-10°C / +60°C	-10°C / +60°C	0.072	5340981000
	G 1/4	G 1/4	1050				0.168	5340981100
	G 3/8	G 3/8	1650				0.263	5340981200
	G 1/2	G 1/2	2200				0.283	5340981300
	G 3/4	G 3/4	6200				0.38	5340981400

Housing: Brass
 Seal: Acrylonitrile Butadiene Rubber
 Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Non-return valves

Pilot-operated non-return valve, Series NR02

▶ Qn = 300 - 680 l/min ▶ internal thread - external thread ▶ thread-in



00110446

Version
 Working pressure min./max.
 Ambient temperature min./max.
 Medium temperature min./max.
 Medium

Poppet valve
 0.5 bar / 10 bar
 -20°C / +80°C
 -20°C / +80°C
 Compressed air

	Port 1	Port 2	Port 12	Qn 1 → 2 [l/min]	Weight [kg]	Part No.
	G 1/8	G 1/8	G 1/8	300	0.059	0821003050
	G 1/4	G 1/4	G 1/4	680	0.105	0821003051

Housing: Brass, nickel-plated
 Seal: Acrylonitrile Butadiene Rubber
 Nominal flow Qn at 6 bar and Δp = 1 bar

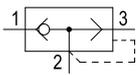
Valve systems ▶ Quick exhaust valves
Quick exhaust valve, Series 573

▶ Qn = 220 - 7200 l/min ▶ internal thread / internal thread



5735-041

Version	Poppet valve
Working pressure min./max.	0.8 bar / 10 bar
Ambient temperature min./max.	-18°C / +70°C
Medium temperature	-18°C / +70°C
Medium	Compressed air

	Port 1	Port 2	Port 3 (Exhaust)	Qn 1▶2	Qn 2▶3	Weight	Note	Part No.
				[l/min]	[l/min]	[kg]		
	M5	M5	M5	220	300	0.03	1)	5735040900
	G 1/8	G 1/8	G 1/8	680	1100	0.08	2)	5735040000
	G 1/4	G 1/4	G 1/4	1200	2100	0.15	2)	5735040100
	G 3/8	G 3/8	G 3/8	1800	3450	0.21	2)	R412010750
	G 1/2	G 1/2	G 1/2	3400	6100	0.32	2)	5735040300
	G 3/4	G 3/4	G 3/4	2500	9800	0.45	2)	R412010751
	G 1	G 1	G 1	7200	12000	1.65	2)	R412010752

1) Seal: Acrylonitrile Butadiene Rubber

2) Seal: Polyurethane

Port 2: internal thread

Port 3 (Exhaust): internal thread

Housing: Brass, nickel-plated

Nominal flow Qn at 6 bar and Δp = 1 bar

Valve systems ▶ Ball valves and shut-off valves

Series QR1-ASC

▶ Qn = 500 - 1600 l/min ▶ push-in fitting / push-in fitting



00117381

Version
Working pressure min./max.
Ambient temperature min./max.
Medium temperature min./max.
Medium

Poppet valve
0 bar / 10 bar
+0°C / +60°C
+0°C / +60°C
Compressed air

	Port 1	Port 2	Qn	Weight	delivery unit	Part No.
			[l/min]	[kg]	[pieces]	
	Ø 6	Ø 6	500	0.023	5	R412005482
	Ø 8	Ø 8	550	0.025		R412005483
	Ø 10	Ø 10	1500	0.043		R412005484
	Ø 12	Ø 12	1600	0.047		R412005485
	Nominal flow Qn at 6 bar and Δp = 1 bar					

Valve systems ▶ Ball valves and shut-off valves

Ball valve, QR1-BSK

▶ Qn = 1000 - 2600 l/min ▶ push-in fitting / push-in fitting



00117384

Version
Working pressure min./max.
Ambient temperature min./max.
Medium temperature min./max.
Medium

Ball valve
-0.95 bar / 10 bar
+0°C / +60°C
+0°C / +60°C
Compressed air

	Port 1	Port 2	Qn	Weight	delivery unit	Part No.
			[l/min]	[kg]	[pieces]	
	Ø 6	Ø 6	1000	0.045	5	R412005502
	Ø 8	Ø 8	1550	0.041		R412005503
	Ø 10	Ø 10	2500	0.103		R412005504
	Ø 12	Ø 12	2600	0.98		R412005505
	Nominal flow Qn at 6 bar and Δp = 1 bar					

Valve systems ▶ E/P pressure regulators
E/P pressure regulator, Series ED02

▶ compressed air connection output: G 1/8, 1/8 NPTF ▶ Electr. connection: via signal connection ▶ Signal connection: input and output, Plug, M12, 5-pin



00123883

Version	Poppet valve
Control	Analog
Certificates	CE declaration of conformity
Ambient temperature min./max.	+0 °C / +50 °C
Medium temperature min./max.	+0 °C / +50 °C
Medium	Compressed air
Max. particle size	50 μm
Max. Oil content of compressed air	1 mg/m ³
Mounting orientation	±α = 0 - 90° ±β = 0 - 90°
Operating pressure	See table below
DC operating voltage	24 V
Voltage tolerance DC	-20% / +20%
Permissible ripple	5%
Max. power consumption	0.3 A
Protection class with electrical connector/plug	IP65
Compressed air connection input	G 1/8, 1/8 NPTF
Compressed air connection output	G 1/8, 1/8 NPTF
Exhaust Type	Unrestricted, with silencer
Weight	0.32 kg

	Operating pressure	Pressure setting	Nominal input		Actual output		Hysteresis	Note	Part No.
	Max.	range	value		value				
	[bar]	[bar]							
	8	0 / 6	0 - 20	mA	0 - 20	mA	< 0,05 bar	-	R414002400
	8	0 / 6	4 - 20	mA	4 - 20	mA		-	R414002401
	8	0 / 6	0 - 10	V	-	-		1)	R414002402
	8	0 / 6	0 - 10	V	0 - 10	V		-	R414002403
	12	0 / 10	0 - 20	mA	0 - 20	mA		-	R414002410
	12	0 / 10	4 - 20	mA	4 - 20	mA		-	R414002411
	12	0 / 10	0 - 10	V	-	-		1)	R414002412
	12	0 / 10	0 - 10	V	0 - 10	V		-	R414002413

1) Output 10V constant to supply a potentiometer
 Minimum working pressure = 0.5 bar + max. required secondary pressure
 Additional pressure setting ranges available on request

Valve systems ▶ E/P pressure regulators

E/P pressure regulator, Series ED05

▶ Qn= 1000 l/min ▶ compressed air connection output: G 1/4 ▶ Electr. connection: via signal connection ▶ Signal connection: input and output, Plug, M12, 5-pin



00125383

Version	Poppet valve
Control	Analog
Certificates	CE declaration of conformity
Ambient temperature min./max.	+0°C / +70°C
Medium temperature min./max.	+0°C / +70°C
Medium	Compressed air
Max. particle size	50 μm
Max. Oil content of compressed air	1 mg/m³
Qn	1000 l/min
Mounting orientation	α = 0-90° β = 0-90°
Hysteresis	< 0,06 bar
DC operating voltage	24 V
Voltage tolerance DC	-20% / +20%
Permissible ripple	5%
Max. power consumption	1.3 A
Protection class with electrical connector/plug	IP65
Compressed air connection input	G 1/4
Compressed air connection output	G 1/4
Compressed air connection, exhaust	G 1/4
Weight	0.95 kg

	Operating pressure	Pressure set- ting range	Nominal input value		Actual output value		Note	Part No.
	Max.	min./max.						
	[bar]	[bar]						
	11	0 / 6	0 - 20	mA	0 - 20	mA	-	R414002003
		0 / 6	4 - 20	mA	4 - 20	mA	-	R414002004
		0 / 6	0 - 10	V	0 - 10	V	-	R414002005
		0 / 6	0 - 20	mA	-	-	1)	R414002006
		0 / 6	4 - 20	mA	-	-	1)	R414002294
		0 / 6	0 - 10	V	-	-	1)	R414002295
		0 / 10	0 - 20	mA	0 - 20	mA	-	R414002007
		0 / 10	4 - 20	mA	4 - 20	mA	-	R414002008
		0 / 10	0 - 10	V	0 - 10	V	-	R414002009
		0 / 10	0 - 20	mA	-	-	1)	R414002010
		0 / 10	4 - 20	mA	-	-	1)	R414002296
		0 / 10	0 - 10	V	-	-	1)	R414002297

1) Acknowledge signal - output from + Ub, if the outlet pressure corresponds to the setpoint +/- 200 mbar

Valve systems ▶ E/P pressure regulators
E/P pressure regulator, Series ED07
▶ Qn= 1300 l/min ▶ Electr. connection: Plug, M12, 5-pin ▶ Signal connection: input and output, Socket, M12, 5-pin


00124122

Version	Poppet valve
Control	Analog
Certificates	CE declaration of conformity
Ambient temperature min./max.	+5°C / +50°C
Medium temperature min./max.	+5°C / +50°C
Medium	Compressed air
Max. particle size	50 µm
Max. Oil content of compressed air	1 mg/m ³
Qn	1300 l/min
Mounting orientation	$\alpha = 0 - 90^\circ \pm \beta = 0 - 90^\circ$
Operating pressure	See table below
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Permissible ripple	5%
Max. power consumption	1.4 A
Protection class with electrical connector/plug	IP65
Weight	2.05 kg

	Operating pressure	Pressure setting range	Nominal input value		Actual output value		Hysteresis	Note	Part No.
	Max.	min./max.							
	[bar]	[bar]							
	8	0 / 6	0 - 20	mA	0 - 20	mA	< 0,03 bar	-	5610264800
	8	0 / 6	4 - 20	mA	4 - 20	mA		-	5610264810
	8	0 / 6	0 - 10	V	-	-		1)	5610264820
	8	0 / 6	0 - 10	V	0 - 10	V		-	5610264830
	12	0 / 10	0 - 20	mA	0 - 20	mA		-	5610264500
	12	0 / 10	4 - 20	mA	4 - 20	mA		-	5610264510
	12	0 / 10	0 - 10	V	-	-		1)	5610264520
	12	0 / 10	0 - 10	V	0 - 10	V		-	5610264530

1) Output 10V constant to supply a potentiometer
 Minimum working pressure = 0.5 bar + max. required secondary pressure
 Additional pressure setting ranges available on request

Valve systems ▶ E/P pressure regulators

E/P pressure regulator, Series ED12

▶ Qn= 2600 l/min ▶ Electr. connection: via signal connection ▶ Signal connection: input and output, Plug, M12, 5-pin



00123681

Version	Poppet valve
Control	Analog
Certificates	CE declaration of conformity
Ambient temperature min./max.	+5 °C / +50 °C
Medium temperature min./max.	+5 °C / +50 °C
Medium	Compressed air
Max. particle size	50 μm
Max. Oil content of compressed air	1 mg/m ³
Qn	2600 l/min
Mounting orientation	α = 0 - 90° ±β = 0 - 90°
Operating pressure	12
Hysteresis	< 0,03 bar
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Permissible ripple	5%
Max. power consumption	1.4 A
Protection class with electrical connector/plug	IP65
Weight	2.3 kg

	Pressure setting range min./max. [bar]	Nominal input value		Actual output value		Part No.
	0 / 10	0 - 20	mA	0 - 20	mA	R414001635
		4 - 20		4 - 20		R414001636
Minimum working pressure = 0.5 bar + max. required secondary pressure Additional pressure setting ranges available on request						

E/P pressure regulator, Series ED12

▶ Qn= 2600 l/min ▶ Electr. connection: Plug, M12, 5-pin ▶ Signal connection: input and output, Socket, M12, 5-pin



00124123

Version	Poppet valve
Control	Analog
Certificates	CE declaration of conformity
Ambient temperature min./max.	+5 °C / +50 °C
Medium temperature min./max.	+5 °C / +50 °C
Medium	Compressed air
Max. particle size	50 µm
Max. Oil content of compressed air	1 mg/m ³
Qn	2600 l/min
Mounting orientation	$\alpha = 0 - 90^\circ \pm \beta = 0 - 90^\circ$
Operating pressure	12
Hysteresis	< 0,03 bar
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Permissible ripple	5%
Max. power consumption	1.4 A
Protection class with electrical connector/plug	IP65
Weight	2.3 kg

Pressure setting range min./max.	Nominal input value		Actual output value		Note	Part No.
	[bar]					
0 / 10	0 - 20	mA	0 - 20	mA	-	R414000728
0 / 10	4 - 20	mA	4 - 20	mA	-	R414000729
0 / 10	0 - 10	V	0 - 10	V	-	R414000731
0 / 10	0 - 10	V	-	-	1)	R414000730

1) Output 10V constant to supply a potentiometer
 Minimum working pressure = 0.5 bar + max. required secondary pressure
 Additional pressure setting ranges available on request

PREPARATION OF COMPRESSED AIR

Maintenance units and components

Series AS1
Series AS2
Series AS3
Series AS5
Series NL1
Series NL2
Series NL4
Series N227 Series MH1

Preparation of compressed air ▶ Maintenance units and components
Maintenance unit, 2-part, Series AS1-ACD
▶ G 1/4 ▶ Air supply: left ▶ filter porosity: 5 µm ▶ With integrated pressure gauge


Working pressure min./max.: 1,5 bar / 12 bar
 • Pressure range min./max.: 0,5 bar / 8 bar
 • Reservoir Polycarbonate
 • Protective guard Polyamide
 semi-automatic, open without pressure

Part No.	Nominal flow Qn (l/min)
R412014672	700

Maintenance unit, 3-part, Series AS1-ACT
▶ G 1/4 ▶ Air supply: left ▶ filter porosity: 5 µm ▶ With integrated pressure gauge


Working pressure min./max.: 1,5 bar / 12 bar
 • Pressure range min./max.: 0,5 bar / 8 bar
 • Reservoir Polycarbonate
 semi-automatic, open without pressure

Part No.	Nominal flow Qn (l/min)
R412014675	480

Pressure regulator, Series AS1-RGS
▶ G 1/4 ▶ Air supply: left ▶ Qn=1000 l/min ▶ Activation: manual

Working pressure min./max.: 0,5 bar / 12 bar



Part No.	Pressure range min. - max. (bar)	Nominal flow Qn (l/min)
R412014629	0,5 - 10	1000

Pressure regulator, Series AS1-RGS
▶ G 1/4 ▶ Air supply: left ▶ Qn=1000 l/min ▶ Activation: manual ▶ with pressure gauge in hand wheel

Working pressure min./max.: 0,5 bar / 12 bar



Part No.	Pressure range min. - max. (bar)	Nominal flow Qn (l/min)
R412014640	0,5 - 8	1000

Pressure regulator, Series AS1-RGS-...-DS
▶ G 1/4 ▶ Air supply: left ▶ Qn=1000 l/min ▶ Activation: manual ▶ with continuous pressure supply

Working pressure min./max.: 0,5 bar / 12 bar



Part No.	Pressure range min. - max. (bar)	Nominal flow Qn (l/min)
R412014632	0,5 - 10	1000

Preparation of compressed air ▶ Maintenance units and components
Pressure regulator, Series AS1-RGS-...-DS

▶ G 1/4 ▶ Air supply: left ▶ Qn=1000 l/min ▶ Activation: manual ▶ with continuous pressure supply ▶ with pressure gauge in hand wheel



Working pressure min./max.: 0,5 bar / 12 bar

Part No.	Pressure range min. - max. (bar)	Nominal flow Qn (l/min)
R412014643	0,5 - 8	1000

Filter pressure regulator, Series AS1-FRE

▶ G 1/4 ▶ Air supply: left ▶ filter porosity: 5 µm



Working pressure min./max. : 1,5 bar / 12 bar
semi-automatic, open without pressure

Reservoir	Part No.	Pressure range min. - max. (bar)	Nominal flow Qn (l/min)
Polycarbonate	R412014655	0,5 - 10	1000
Polycarbonate + Protective guard (metal)	R412014658		

Standard filter, Series AS1-FLS

▶ G 1/4 ▶ Air supply: left ▶ filter porosity: 5 µm



Working pressure min./max.: 1,5 bar / 12 bar
semi-automatic, open without pressure

Reservoir	Part No.	Nominal flow Qn (l/min)
Polycarbonate	R412014600	1000
Polycarbonate + Protective guard (metal)	R412014603	

Pre-filter, Series AS1-FLP

▶ G 1/4 ▶ Air supply: left ▶ filter porosity: 0,3 µm



Working pressure min./max. : 1,5 bar / 12 bar
Recommended pre-filtering : 5 µm
semi-automatic, open without pressure

Reservoir	Part No.	Nominal flow Qn (l/min)
Polycarbonate	R412014607	350
Polycarbonate + Protective guard (metal)	R412014610	

Microfilter, Series AS1-FLC

▶ G 1/4 ▶ Air supply: left ▶ filter porosity: 0,01 µm



Working pressure min./max. : 1,5 bar / 12 bar
Recommended pre-filtering : 0,3 µm
semi-automatic, open without pressure

Reservoir	Part No.	Nominal flow Qn (l/min)
Polycarbonate	R412014614	350
Polycarbonate + Protective guard (metal)	R412014617	

Preparation of compressed air ▶ Maintenance units and components
Active carbon filter, Series AS1-FLA

▶ G 1/4 ▶ Air supply: left

 Working pressure min./max.: 0 bar / 12 bar
 Recommended pre-filtering: 0,01 µm


Reservoir	Part No.	Nominal flow Qn (l/min)
Polycarbonate	R412014621	350
Polycarbonate + Protective guard (metal)	R412014622	

Micro oil-mist lubricator, Series AS1-LBM

▶ G 1/4 ▶ Air supply: left

Working pressure min./max. : 0,8 bar / 12 bar



Reservoir	Part No.	Nominal flow Qn (l/min)
Polycarbonate	R412014624	1400
Polycarbonate + Protective guard (metal)	R412014625	

Filling unit, electrically operated, Series AS1-SSU

▶ G 1/4 ▶ Air supply: left ▶ Pipe connection

 Working pressure min./max. : 2,5 bar / 10 bar
 Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.


Steuerung	Part No.	Nominal flow Qn (l/min)
Basic valve with pilot valve, 24 V DC	R412010484	1300

Filling unit, pneumatically operated, Series AS1-SSV

▶ G 1/4 ▶ Air supply: left ▶ Pipe connection

 Working pressure min./max. : 2,5 bar / 16 bar
 Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.


Part No.	Nominal flow Qn (l/min)
R412014671	2000

3/2-directional valve, electrically operated, Series AS1-SOV

▶ G 1/4 ▶ Air supply: left ▶ Pipe connection ▶ ATEX optional

Working pressure min./max. : 2 bar / 10 bar



Steuerung	Part No.	Nominal flow Qn (l/min)
Basic valve without pilot valve	R412014669	2000
Basic valve with pilot valve, 24 V DC	R412014666	
Basic valve with pilot valve, 230 V AC	R412014668	
Pneumatically operated	R412014665	

3/2-shut-off valve, mechanically operated, Series AS1-BAV

▶ G 1/4 ▶ Air supply: left



Working pressure min./max.: 0 bar / 12 bar

Part No.	Nominal flow Qn (l/min)
R412014664	2600

Distributor, Series AS1-DIS

▶ G 1/4 ▶ Air supply: left ▶ Distributor 2x ▶ Distributor



Working pressure min./max.: 0 bar / 12 bar

Port	Qn			Part No.
	1▶2	1▶3	1▶5	
			[l/min]	
G 1/4	2700	950	2000	R412014662

Nominal flow Qn at p1= 6,3 bar and Δp = 1 bar

Series AS1

Accessories

Protective guard, steel



Part No.
1820507004

MBR-W01 Mounting plate



Scope of delivery incl. 2 mounting screws 3x10 (Torx 10 IP) DIN EN ISO 10664

Part No.
R412014755

MBR-W02 Mounting bracket



Scope of delivery incl. 2 mounting screw 3x10 (Torx 10 IP) DIN EN ISO 10664

Part No.
R412014756

MBR-W03 Mounting clip



Part No.
R412014757

MBR-W04 Block assembly kit



Part No.
R412014758

Preparation of compressed air ▶ Maintenance units and components
MBR-W05 Block assembly kit


Port	Part No.
G 1/8	R412014753
G 1/4	R412014754

MBR-W06 Panel nut


Material	Part No.
Brass	1829234070
plastic	1829234073

MBR-W07 Block assembly kit, Series AS1/AS2


Material	Part No.
Polyamide	R412014759

PG 1-INT Pressure gauge

Flange version, Background color: White, Scale color: Black, Viewing window: Polycarbonate, Units: bar



Application [bar]	Display range [bar]	Working pressure [bar]	Part No.
0 - 6	0 - 6	0 / 6	R412014760
0 - 12	0 - 12	0 / 12	R412014761

PG 1-SAS Pressure gauge Ø40, G 1/8

Front port, Background color: Black, Scale color: White / Grey, Viewing window: Polystyrene, Units: bar / psi, Suitable for ATEX



Compressed air connection	Nominal diameter [mm]	Application [bar]	Display range [bar]	Working pressure [bar]	Scale value	Part No.
G 1/8	40	0 - 4	0 - 6	0 / 6	0,2	R412003856
		0 - 8	0 - 10	0 / 10	0,5	R412003857
		0 - 12	0 - 16	0 / 16	0,5	R412003858

AS1 Transition plate

Transition plate for assembling a pressure gauge with connection thread G 1/8



Part No.
R412010538

Maintenance unit, 2-part, Series AS2/AS3/AS5-ACD

▶ G 1/4 - G 1 ▶ Air supply: left ▶ Filter porosity: 5 µm ▶ with pressure gauge



- Working pressure min./max.: 1,5 bar / 16 bar
- Pressure range min./max.: 0,5 bar / 8 bar
 - Reservoir Polycarbonate with protective guard: Polyamide
 - semi-automatic, open without pressure

Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	1800	2000	3500	3500	12300	12300
Part No.	R412006298	R412006307	R412007298	R412007307	R412009298	R412009307

Maintenance unit, 3-part, Series AS2/AS3/AS5-ACT

▶ G 1/4 - G 1 ▶ Air supply: left ▶ Filter porosity: 5 µm ▶ with pressure gauge



- Working pressure min./max.: 1,5 bar / 16 bar
- Pressure range min./max.: 0,5 bar / 8 bar
 - Reservoir Polycarbonate with protective guard: Polyamide
 - semi-automatic, open without pressure

Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	1400	1800	3500	3500	12300	12300
Part No.	R412006318	R412006327	R412007318	R412007327	R412009318	R412009327

Pressure regulator, Series AS2/AS3/AS5-RGS

▶ G 1/4 - G 1 ▶ Qn=2200 - 14500 l/min ▶ Activation: mechanical ▶ lockable ▶ for padlocks ▶ Suitable for ATEX



- Working pressure min./max.: 1,5 bar / 16 bar
Pressure range min. - max. 0,5 - 10 bar

Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2200	2700	4300	5200	14500	
Part No.	R412006109	R412006121	R412007109	R412007121	R412009109	R412009121

Pressure regulator, Series AS2/AS3-RGS-...-DS

▶ G 1/4 - G 1/2 ▶ Activation: mechanical ▶ with continuous pressure supply ▶ lockable ▶ for padlocks ▶ Suitable for ATEX



- Working pressure min./max.: 0,5 bar / 16 bar
Pressure range min. - max. 0,5 - 10 bar

Series and Size	AS2		AS3	
Port	G 1/4	G 3/8	G 3/8	G 1/2
Nominal flow Qn (l/min)	2200	2700	4300	5200
Part No.	R412006128	R412006134	R412007128	R412007134

RGP

Precision pressure regulator AS2 - AS3

- Working pressure min./max. 0,1 - 1, 0,1 - 2, 0,2 - 4, 0,5 - 8, 0,5 - 10 bar
- Part No. see online catalog

RGP-DS

Precision pressure regulator AS2 - AS3, Activation: mechanical ▶ with continuous pressure supply ▶ lockable

Part No. see online catalog

Preparation of compressed air ▶ Maintenance units and components

Precision pressure regulator, Series AS2/AS3-RGP-...-DS

▶ G 1/4 - G 1/2 ▶ Qn=1600 - 5200 l/min ▶ Activation: mechanical ▶ with continuous pressure supply ▶ lockable ▶ Suitable for ATEX

 Working pressure min./max.: 0,5 bar / 16 bar
 Pressure range min. - max. 0,5 - 10 bar


Series and Size	AS2		AS3	
	Port	G 1/4	G 3/8	G 3/8
Nominal flow Qn (l/min)	2200	2700	4300	5200
Part No.	R412006164	R412006170	R4120071264	R412007170

Filter pressure regulator, Series AS2/AS3/AS5-FRE

▶ G 1/4 - G 1 ▶ Filter porosity: 5 µm ▶ lockable ▶ for padlocks ▶ with pressure gauge ▶ Suitable for ATEX

 Working pressure min./max.: 1,5 bar / 16 bar
 Pressure range min. - max. 0,5 - 8 bar
 semi-automatic, open without pressure


Series and Size	AS2		AS3		AS5	
	Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4
Nominal flow Qn (l/min)	2100	2600	4300	5100	14000	
Part No.	R412006200	R412006209	R412007200	R412007209	R412009200	R412009209

Standard-filter, Series AS2/AS3/AS5-FLS

▶ G 1/4 - G 1 ▶ Air supply: left ▶ Filter porosity: 5 µm

 Working pressure min./max.: 1,5 bar / 16 bar
 semi-automatic, open without pressure
 Protective guard: Polyamide


Series and Size	AS2		AS3		AS5	
	Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4
Nominal flow Qn (l/min)	2100	2100	3500	3500	7800	7800
Part No.	R412006000	R412006009	R412007000	R412007009	R412009000	R412009009

Pre-filter, Series AS2/AS3/AS5-FLP

▶ G 1/4 - G 1 ▶ Filter porosity: 0,3 µm ▶ Suitable for ATEX

 Working pressure min./max.: 1,5 bar / 16 bar
 Recommended pre-filtering: 5 µm
 semi-automatic, open without pressure


Series and Size	AS2		AS3		AS5	
	Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4
Nominal flow Qn (l/min)	400		900		2200	
Part No.	R412006018	R412006027	R412007018	R412007027	R412009018	R412009027

Microfilter, Series AS2/AS3/AS5-FLC

▶ G 1/4 - G 1 ▶ filter porosity: 0.01 µm ▶ contamination display: integrated ▶ Suitable for ATEX



Working pressure min./max.: 1,5 bar / 16 bar
Recommended pre-filtering: 0,3 µm
semi-automatic, open without pressure

Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	300		700		1600	
Part No.	R412006054	R412006063	R412007054	R412007063	R412009054	R412009063

Active carbon filter, Series AS2/AS3/AS5-FLA

▶ G 1/4 - G 1 ▶ Suitable for ATEX



Working pressure min./max.: 1,5 bar / 16 bar
Recommended pre-filtering: 0,01 µm

Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	650		1000		1700	
Part No.	R412006072	R412006075	R412007072	R412007075	R412009072	R412009075

Filling unit, electrically and pneumatically operated, Series AS2/AS3/AS5-SSU

▶ G 1/4 - G 1 ▶ Pipe connection ▶ ATEX optional

Working pressure min./max. electrically operated: 2,5 bar / 10 bar
pneumatically operated: 2,5 bar / 16 bar

• Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.



Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2000		4500		8750	
Control						
24 V DC	R412006278	R412006283	R412007278	R412007283	R412009278	R412009283
220/230 V AC 50/60 Hz	R412006280	R412006285	R412007280	R412007285	R412009280	R412009285
without pilot valve	R412006277	R412006282	R412007277	R412007282	R412009277	R412009282
Pneumatically operated	R412006276	R412006281	R412007276	R412007281	R412009276	R412009281
Silencer	R412004817 (G 1/4)		G 1/2		G 1/2	

Filling unit, pneumatically operated, Series AS2/AS3/AS5-SSV

▶ G 1/4 - G 1 ▶ Suitable for ATEX

Working pressure min./max.: 0,5 bar / 16 bar

Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.



Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2000		4500		10000	
Part No.	R412006272	R412006273	R412007272	R412007273	R412009272	R412009273

Preparation of compressed air ▶ Maintenance units and components
3/2-Directional valve, electrically and pneumatically operated, Series AS2/AS3/AS5-SOV

▶ G 1/4 - G 1 ▶ Pipe connection ▶ ATEX optional

 Working pressure min./max. electrically operated: 2,5 bar / 10 bar
 pneumatically operated: 0 bar / 16 bar


Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2000		4500		12500	
Actuation						
Basic valve with pilot valve, 24 V DC	R412006265	R412006269	R412007265	R412007269	R412009265	R412009269
Basic valve with pilot valve, , 220/230 V AC, 50/60 Hz	R412006267	R412006271	R412007267	R412007271	R412009267	R412009271
Basic valve without pilot valve	R412006264	R412006268	R412007264	R412007268	R412009264	R412009268
Pneumatically operated	R412006262	R412006263	R412007262	R412007263	R412009262	R412009263
Silencer	R412004817 (G 1/4 court)		G 1/2		G 1/2	

3/2-shut-off valve, mechanically operated, Series AS2/AS3/AS5-BAV

▶ G 1/4 - G 1 ▶ Suitable for ATEX

- Working pressure min./max.: 0 bar / 16 bar
- AS2: A short silencer is required for wall mounting.



Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2000	2000	4500	4500	16000	16000
Part No. A	R412006260	R412006261	-	-	-	-
Part No. B	R412006256	R412006257	R412007260	R412007261	R412009260	R412009261
Silencer	R412004817 (G 1/4)		G 1/2		G 3/4	

Distributor, Series AS2/AS3/AS5-DIS

▶ G 1/4 - G 1 ▶ Distributor 2x, 3x, 4x ▶ Suitable for ATEX

Working pressure min./max.: 0 bar / 16 bar



Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min) 1 -> 2	2700	3600	7250		18000	
Nominal flow Qn (l/min) 1 -> 3	2000		5500		8500	
Nominal flow Qn (l/min) 1 -> 5			2250		12000	
Part No.	R412006250	R412006251	R412007250	R412007251	R412009250	R412009251

Diaphragm-Type dryer, Series AS2/AS3-ADD

▶ G 3/8 - G 1/2



- Recommended pre-filtering: 5 / 0,01 µm
- Part No. see online catalog

Standard oil-mist lubricator, Series AS2/AS3/AS5-LBS

▶ G 1/4 - G 1

Working pressure min./max.: 0,5 bar / 16 bar
during operation manual oil filling



Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2800	3100	8000		15800	
Part No.	R412006225	R412006231	R412007225	R412007231	R412009225	R412009231

Electrical level detection only with ST6 sensor with reed contact, sensor holder included in the scope of the delivery.



Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2800	3100	8000		15800	
Part No.	R412006226	R412006232	R412007226	R412007232	R412009226	R412009232

Series AS2/AS3/AS5

Accessories

MBR-W01 Mounting plate



Series and Size	AS2	AS3	AS5
Part No.	R412006368	R412007368	R412009368

MBR-W02 Mounting bracket



Series and Size	AS2	AS3
Part No.	R412007963	R412007964

MBR-W03 Mounting clip



Series and Size	AS2	AS3	AS5
Part No.	R412006370	R412007370	R412009370

MBR-W03-C Mounting clip



Series and Size	AS2	AS3	AS5
Part No.	-	R412007373	-

MBR-W04 Block assembly



Series and Size	AS2	AS3	AS5
Part No.	R412006371	R412007371	R412009371

Preparation of compressed air ▶ Maintenance units and components
MBR-W05 Block assembly kit


Series and Size	AS2		AS3		AS5	
Port	G 1/4	G 3/8	G 3/8	G 1/2	G 3/4	G 1
Part No.	R412006366	R412006367	R412007366	R412007367	R412009366	R412009367

MBR-W06 Panel nut


Series and Size	AS2	AS3	AS5
Part No.	R412006372	R412007372	1829234071

MBR-W07 Block assembly kit


Series and Size	AS2/AS3	AS3/AS5
Part No.	R412010121	R412010122

PG 1
Pressure gauge

Front port, Background color: Black, Scale color: White / Grey, Viewing window: Polystyrene, Units: bar / psi, Suitable for ATEX



Port		Nominal diameter [mm]	Application [bar]	Display range [bar]	Working pressure [bar]	Scale value	Part No.
G 1/4	AS2 / AS3	Ø50	0 - 4	0 - 6	0 / 6	0,2	R412004416
			0 - 8	0 - 10	0 / 10	0,2	R412004417
			0 - 12	0 - 16	0 / 16	0,5	R412004418
	AS5	Ø63	0 - 4	0 - 6	0 / 6	0,2	R412004422
			0 - 8	0 - 10	0 / 10	0,2	R412004423
			0 - 12	0 - 16	0 / 16	0,5	R412004424

Mortise lock


Type	Part No.
Standard locking, with key	R412007959
E11-locking, without key	R412006374

Preparation of compressed air ▶ Maintenance units and components
Maintenance unit, 2-part, Series NL1/NL2/NL4/NL6-ACD
▶ G 1/8 - G 1 ▶ Filter porosity: 5 µm ▶ with pressure gauge

- Working pressure min./max.: 1,5 bar / 16 bar
 • Adjustment range min./max.: 0,5 bar / 10 bar
 • Protective guard : Polyamide
 • Semi-automatic, open without pressure



Series and size	NL1		NL2	
	Port	G 1/8	G 1/4	G 1/4
Nominal flow Qn (l/min)	600		1100	
Part No. Reservoir: Polycarbonate	0821300727	0821300730	0821300400	0821300430
Part No. Reservoir: Die cast zinc	0821300728	0821300731	0821300402	0821300432

Series and size	NL4		NL6	
	Port	G 1/2	G 3/4	G 3/4
Nominal flow Qn (l/min)	3600		10500	
Part No. Reservoir: Polycarbonate	0821300500	0821300530	0821300871	0821300877
Part No. Reservoir: Die cast zinc	0821300502	0821300532	0821300873	0821300879

Maintenance unit, 3-part, Series NL1/NL2/NL4/NL6-ACT
▶ G 1/8 - G 1 ▶ Filter porosity: 40 µm ▶ with pressure gauge

- Working pressure min./max.: 1,5 bar / 16 bar
 • Adjustment range min./max.: 0,5 bar / 10 bar
 • Protective guard : Polyamid
 • Semi-automatic, open without pressure



Series and size	NL1		NL2	
	Port	G 1/8	G 1/4	G 1/4
Nominal flow Qn (l/min)	450		1200	
Part No. Reservoir: Polycarbonat	0821300721	0821300724	0821300450	0821300480
Part No. Cuve Die cast zinc	0821300722	0821300725	0821300452	0821300482

Series and size	NL4		NL6	
	Port	G 1/2	G 3/4	G 3/4
Nominal flow Qn (l/min)	3000		11300	
Part No. Reservoir: Polycarbonat	0821300550	0821300580	0821300886	0821300892
Part No. Reservoir: Die cast zinc	0821300552	0821300582	0821300882	0821300897

Pressure regulator, Series NL1/NL2/NL4/NL6-RGS
▶ G 1/8 - G 1 ▶ Qn=600 - 12500 l/min ▶ Activation: mechanical

- Working pressure min./max.: 0,5 bar / 16 bar
 • Adjustment range min./max.: 0,5 bar / 10 bar



Series and size	NL1		NL2	
	Port	G 1/8	G 1/4	G 1/4
Nominal flow Qn (l/min)	600		1500	
Part No.	0821302730	0821302736	0821302400	0821302440

Series and size	NL4		NL6	
	Port	G 1/2	G 3/4	G 3/4
Nominal flow Qn (l/min)	5600		12500	
Part No.	0821302500	0821302540	0821302803	0821302803

Preparation of compressed air ▶ Maintenance units and components
Pressure regulator, Series NL1/NL2/NL4/NL6-RGS

▶ G 1/8 - G 1 ▶ Qn=1000 - 12500 l/min ▶ Activation: mechanical

 Working pressure min./max.: 0,5 bar / 16 bar
 Adjustment range min. - max. 0,5 - 10 bar


Series and size	NL1		NL2	
Port	G 1/8	G 1/4	G 1/4	G 3/8
Nominal flow Qn (l/min)	1000		1500	
Part No.	0821302710	0821302716	0821302400	0821302440

Series and size	NL4		NL6	
Port	G 1/2	G 3/4	G 3/4	G 1
Nominal flow Qn (l/min)	5600		12500	
Part No.	0821302500	0821302540	0821302803	0821302804

Filter pressure regulator, Series NL1/NL2/NL4/NL6-FRE

▶ G 1/8 - G 1 ▶ Filter porosity: 5 µm

 Working pressure min./max.: 0,5 bar / 16 bar
 Adjustment range min. - max. 0,5 - 10 bar with pressure gauge
 Semi-automatic, open without pressure


Series and size	NL1		NL2	
Port	G 1/8	G 1/4	G 1/4	G 3/8
Nominal flow Qn (l/min)	950		1500	
Part No. Reservoir Polycarbonat	0821300750	0821300756	0821300300	0821300330
Part No. Reservoir: Die cast zinc	0821300751	0821300757	0821300302	0821300332

Series and size	NL4		NL6 Filter porosity: 40 µm	
Port	G 1/2	G 3/4	G 3/4	G 1
Nominal flow Qn (l/min)	3500		12000	
Part No. Reservoir Polycarbonat	0821300350	0821300380	0821300850	0821300856
Part No. Reservoir: Die cast zinc	0821300352	0821300382	0821300852	0821300858

Filter, Series NL1/NL2/NL4/NL6-FLS

▶ G 1/8 - G 1 ▶ Filter porosity: 5 µm

 Working pressure min./max.: 1,5 bar / 16 bar
 Semi-automatic, open without pressure


Series and size	NL1		NL2	
Port	G 1/8	G 1/4	G 1/4	G 3/8
Nominal flow Qn (l/min)	1000		2100	
Part No. Reservoir Polycarbonat	0821303710	0821303713	0821303400	0821303440
Part No. Reservoir Polycarbonat + Metal protective guard	0821303711	0821303714	0821303401	0821303441

Series and size	NL4		NL6 Filter porosity: 40 µm	
Port	G 1/2	G 3/4	G 3/4	G 1
Nominal flow Qn (l/min)	4000		7200	
Part No. Reservoir Polycarbonat	0821303500	0821303540	0821303801	0821303807
Part No. Reservoir Polycarbonat + Metal protective guard	0821303501	0821303541	0821303802	0821303808

Pre-filter, Series NL2/NL4/NL6-FLP

▶ G 1/4 - G 1 ▶ Filter porosity: 0,3 µm

Working pressure min./max.: 1,5 bar / 16 bar

Recommended pre-filtering: 5 µm

Semi-automatic, open without pressure



Series and size	NL2	NL4	NL4
Port	G 1/4	G 1/2	G 1
Nominal flow Qn (l/min)	380	1000	1600
Part No. Reservoir Polycarbonat	0821303308	0821303529	0821303816

Microfilter, Series NL1/ NL2/NL4/NL6-FLC

▶ G 1/4 - G 1 ▶ Filter porosity: 0,01 µm

Working pressure min./max.: 1,5 bar / 16 bar

Recommended pre-filtering: 0,3 µm

Semi-automatic, open without pressure



Series and size	NL1	NL2	NL4	NL6
Port	G 1/4	G 1/4	G 1/2	G 1
Nominal flow Qn (l/min)	450	280	1000	1600
Part No. Reservoir Polycarbonat	0821303718	0821303449	0821303514	0821303814

Active carbon filter, Series NL1/ NL2/NL4/NL6-FLA

▶ G 1/4 - G 1

Working pressure min./max.: 0,5 bar / 16 bar

Recommended pre-filtering: 0,01 µm



Series and size	NL1	NL2	NL4	NL6
Port	G 1/4	G 1/4	G 1/2	G 1
Nominal flow Qn (l/min)	380	380	2250	1600
Part No. Reservoir Polycarbonat	0821303721	R412007793	0821303517	0821303815

Filling unit, electrically operated, Series NL1/ NL2/NL4/NL6-SSU

▶ G 1/4 - G 1 ▶ pipe connection ▶ Electr. connection: Plug, ISO 6952, form B ▶ ATEX optional

Working pressure min./max. electrically operated: 2,5 bar / 10 bar

pneumatically operated: 2,5 bar / 16 bar

• Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.



Series and size	NL1	NL2	NL4	NL6	
Port	G 1/4	G 1/4	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2000	900	2500	8750	
24 V DC	0821300796	0821300941	0821300950	0821300959	0821300961
230 V AC 50/60 Hz	0821300797	0821300942	0821300951	0821300958	0821300962
without coil	0821300798	0821300943	0821300952	0821300960	0821300963
pneumatically operated	0821300795	0821300940	0821300949	0821300992	0821300993
Silencer	G 1/4	G 1/4	G 1/2	G 1/2	

Preparation of compressed air ▶ Maintenance units and components

Filling valve, pneumatically operated, Series NL1/NL2/NL4/NL6-SSV

▶ G 1/4 - G 1

Working pressure min./max.: 0 bar / 16 bar

Builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a restart after a mains pressure failure or avoids emergency OFF switching. This also avoids dangerous, jerky cylinder movements.



Series and size	NL1	NL2	NL4	NL6	
Port	G 1/4	G 1/4	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2200	1000	4000	12000	
Part No.	0821300774	0821300926	0821300936	0821300974	0821300967

3/2-directional valve, electrically and pneumatically operated, Series NL1/NL2/NL4/NL6-SOV

▶ G 1/4 - G 1 ▶ pipe connection ▶ Electr. connection: Plug, ISO 6952, Form B ▶ ATEX optional

Working pressure min./max. electrically operated: 2,5 bar / 10 bar
pneumatically operated: 0 bar / 16 bar



Series and size	NL1	NL2	NL4	NL6	
Port	G 1/4	G 1/4	G 1/2	G 3/4	G 1
Nominal flow Qn (l/min)	2200	1100	4000	12500	
24 V DC	0821300776	0821300922	0821300932	0821300972	0821300965
230 V AC 50/60 Hz	0821300777	0821300923	0821300933	0821300971	0821300964
without coil	0821300778	0821300924	0821300934	0821300973	0821300966
pneumatically operated	0821300775	0821300921	0821300931	0821300988	0821300989
Silencer	G 1/4	G 1/4	G 1/2	G 1/2	

3/2-shut-off valve, mechanically operated, Series NL1/NL2/NL4/NL6-BAV

▶ G 1/8 - G 1

• Working pressure min./max.: 0 bar / 16 bar



Series and size	NL1		NL2	
Port	G 1/8	G 1/4	G 1/4	G 3/8
Silencer	G 1/4		G 1/4	
Nominal flow Qn (l/min)	1800		2800	
Part No.	0821300772	0821300773	0821300901	0821300903

Series and size	NL4			NL6	
Port	G 3/8	G 1/2	G 3/4	G 3/4	G 1
Silencer	G 1/2			G 1/2	
Nominal flow Qn (l/min)	11000			25000	
Part No.	0821300912	0821300911	0821300913	0821300976	0821300977

Distributor, Series NL1/NL2/NL4/NL6-DIL

▶ G 1/4 - G 1 ▶ Distributor 2x ▶ narrow distributor

Working pressure min./max.: 0 bar / 16 bar



Series and size	NL1	NL2	NL4	NL6
Port	G 1/4	G 1/4	G 1/2	G 1
Nominal flow Qn (l/min) 1 -> 2	2700	2700	11000	25000
Nominal flow Qn (l/min) 1 -> 3	1300	2700	8750	10000
Part No.	0821300771	0821300920	0821300930	0821300978

Diaphragm-Type dryer, Series NL2/NL4/-ADD

▶ G 1/4 - G 1/2



• Recommended pre-filtering: 5 / 0,01 µm
Part No. see online catalog

Standard oil-mist lubricator, Series NL1/NL2/NL4/NL6-LBS

▶ G 1/8 - G 1

Working pressure min./max.: 0,5 bar / 16 bar
Oil filling not possible during operation.



Series and size	NL1-LBM (Micro oil-mist lubricator)		NL2	
	G 1/8	G 1/4	G 1/4	G 3/8
Nominal flow Qn (l/min)	1000		1800	
Part No. Reservoir Polycarbonat	0821301702	0821301704	0821301400	0821301440
Part No. Reservoir Polycarbonat + Metal protective guard	0821301703	0821301705	0821301401	0821301441

Series and size	NL4		NL6	
	G 1/2	G 3/4	G 3/4	G 1
Nominal flow Qn (l/min)	6000		18000	
Part No. Reservoir Polycarbonat	0821301500	0821301540	0821301801	0821301804
Part No. Reservoir Polycarbonat + Metal protective guard	0821301501	0821301541	0821301802	0821301805

LBS

Standard oil-mist lubricator, electrical level detection

Series and size	NL2	NL4	
	G 1/4	G 1/2	G 3/4
Part No. Reservoir Polycarbonat	0821301408	0821301515	0821301545

Preparation of compressed air ► Maintenance units and components

Series NL1/NL2/NL4/NL6
Accessories
MBR-W01 Mounting plate


Series and size	NL1	NL2	NL4	NL6
Part No.	-	1821336006	1821336007	1821336017

MBR-W02 Mounting bracket


Series and size	NL1	NL2	NL4	NL6
Part No.	1821331013	1821331013	1821331014	-

MBR-W04 Block assembly kit


Series and size	NL1	NL2	NL4	NL6
Part No.	1827009636	1827009359	1827009360	1827009593

MBR-W06 Panel nut


Material	NL1	NL2	NL4	NL6
Brass	1829234070	1829234070	-	-
Plastic	1829234073	1829234073	1829234071	-

Mounting bracket and mounting screws for wall mounting


Series and size	NL1 1821336024 W05	NL2 mounting screws	NL3 mounting screws	NL4 mounting screws
Part No.	1821336024	1823414009	1823414034	1823414014

PG 1 Pressure gauge, Series PG1-SNL

back port, Background color: Black, Scale color: Green / White, Viewing window: Polystyrene, Units: bar / psi



Series	Compressed air connection	Nominal diameter [mm]	Application [bar]	Display range [bar]	Working pressure [bar]	Scale value	Part No.
NL1	G 1/8	Ø 40	0 - 4	0 - 6	0 / 6	0,2	1827231018
			0 - 8	0 - 10	0 / 10	0,5	1827231024
			0 - 12	0 - 16	0 / 16	0,5	1827231009
NL2 / NL4	G 1/4	Ø 50	0 - 4	0 - 6	0 / 6	0,2	1827231016
			0 - 8	0 - 10	0 / 10	0,5	1827231015
			0 - 12	0 - 16	0 / 16	0,5	1827231010
NL6	G 1/4	Ø 63	0 - 12	0 - 16	0 / 16	0,1	1827231011

Preparation of compressed air ▶ Maintenance units and components
Pressure regulator, Series MH1-RGS

▶ G 1/4 - G 1/2 ▶ Qn=325 - 2000 l/min ▶ Activation: mechanical



17158_a

Mounting orientation	Any
Working pressure min./max.	0.5 bar / 17 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-30°C / +80°C
Ambient temperature min./max.	-30°C / +80°C
Regulator Type	Diaphragm-Type pressure regulator with relieving air exhaust
Regulator function	
Adjustment range min./max.	0.5 bar / 9 bar
Pressure supply	single

	Port	Qn [l/min]	Weight [kg]	Part No.
	G 1/4	325	0.3	R432034650
	G 1/2	2000	1.01	R432034657

Max. pressure gauge Ø in blocked state [mm]: 50
Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar

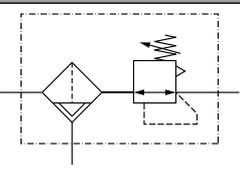
Filter pressure regulator, Series MH1-FRE

▶ G 1/4 - G 1/2 ▶ filter porosity: 5 μm



17548_a

Parts	Filter, Pressure controller
Mounting orientation	vertical
Working pressure min./max.	0.5 bar / 17 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-30°C / +80°C
Ambient temperature min./max.	-30°C / +80°C
Regulator Type	Diaphragm-Type pressure regulator
Adjustment range min./max.	0.5 bar / 9 bar
Pressure supply	single
Filter element	exchangeable
Condensate drain	semi-automatic, open without pressure

	Port	Qn [l/min]	Weight [kg]	Part No.
	G 1/4	170	0.65	R432034652
	G 1/2	2000	2.57	R432034659

Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar

Preparation of compressed air ▶ Maintenance units and components

Filter, Series MH1-FLS

▶ G 1/4 - G 1/2 ▶ filter porosity: 5 μm



17156

Version	Standard filter
Mounting orientation	vertical
Working pressure min./max.	0.5 bar / 17 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-30 °C / +80 °C
Ambient temperature min./max.	-30 °C / +80 °C
Filter element	exchangeable
filter porosity	5 μm
Condensate drain	semi-automatic, open without pressure

	Port	Qn	Weight	Part No.
		[l/min]	[kg]	
	G 1/4	850	0.51	R432034653
	G 1/2	3800	2.01	R432034660

Nominal flow Qn at p1 = 6.3 bar and Δp = 1 bar

Microfilter, Series MH1-FLC

▶ G 1/4 - G 1/2 ▶ filter porosity: 0.01 μm



17156

Version	Microfilter
Mounting orientation	vertical
Working pressure min./max.	0.5 bar / 17 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-30 °C / +80 °C
Ambient temperature min./max.	-30 °C / +80 °C
Filter element	exchangeable
filter porosity	0.01 μm
Condensate drain	semi-automatic, open without pressure

	Port	Qn	Weight	Part No.
		[l/min]	[kg]	
	G 1/4	170	0.51	R432034654
	G 1/2	680	2.01	R432034661

Nominal flow Qn at 6.3 bar and Δp = 0.2 bar

Preparation of compressed air ► Maintenance units and components
Active carbon filter, Series MH1-FLA

► G 1/4 - G 1/2



17157

Version	Active carbon filter
Mounting orientation	vertical
Working pressure min./max.	0 bar / 17 bar
Medium	Compressed air Neutral gases
Medium temperature min./max.	-30 °C / +80 °C
Ambient temperature min./max.	-30 °C / +80 °C
Filter element	exchangeable

	Port	Qn [l/min]	Weight [kg]	Part No.
	G 1/4	170	0.42	R432034655
	G 1/2	680	1.65	R432034662

Nominal flow Qn at 6.3 bar and $\Delta p = 0.2$ bar

ACCESSORIES

Push-In fittings

Series QR1 Standard
Series QR2 Standard

Plastic tubing

Series TU1 Polyurethane
Series TU1 Polyamide

Vacuum generators

Series EBS

Non-contact transport system

Series NCT

Vacuum suction grippers

Series BSG
Series FSG
Series FS0
Series FSR

Pressure sensors

Series PM1
Series PE2
Series PE5
Series PE6

Flow sensors

Series AF1

Shock absorber

Series 370
Series SA1

Silencers

Series SI1

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Straight Fitting ▶ external thread ▶ M5 - G 1/2 ▶ push-in fitting ▶ Ø 4 - Ø16 ▶ QR1-S-RPN



00117300

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	SW1	SW2	X	Y	Delivery quantity [Piece]	Weight [kg]
2121004050	M5	Ø 4	21,5	4	16	10	–	12	10	10	0,0069
2121006050	M5	Ø 6	24,5	4	17	12	–	14	10	10	0,0105
2121004180	G 1/8	Ø 4	20,1	5	16	10	3	12	10	10	0,0139
2121006180	G 1/8	Ø 6	24,6	5	17	12	4	14	12	10	0,0163
2121008180	G 1/8	Ø 8	26,5	5	18,5	14	5	16	14	10	0,0215
R412005002	G 1/8	Ø 10	28,9	5	21	17	4	19	17	10	0,0235
R412005003	G 1/8	Ø 12	33,5	5	22,5	21	4	23	21	10	0,0358
2121004140	G 1/4	Ø 4	19,1	6	16	10	3	12	10	10	0,0202
2121006140	G 1/4	Ø 6	21,6	6	17	12	4	14	12	10	0,0212
2121008140	G 1/4	Ø 8	22,4	6	18,5	14	6	16	14	10	0,0241
2121010140	G 1/4	Ø 10	29,9	6	21	17	6	19	17	10	0,0261
2121012140	G 1/4	Ø 12	33,4	6	22,5	21	6	23	21	10	0,0393
R412005000	G 3/8	Ø 6	21,6	7	17	12	4	14	12	10	0,0323
2121008380	G 3/8	Ø 8	23,2	7	18,5	14	6	16	14	10	0,0354
2121010380	G 3/8	Ø 10	25,9	7	21	17	8	19	17	10	0,0416
2121012380	G 3/8	Ø 12	33,5	7	22,5	21	8	23	21	10	0,0451
2121014380	G 3/8	Ø 14	30,1	7	24,6	22	9	25	23	10	0,0455
R412005005	G 3/8	Ø16	35,3	7	25,5	24	8	27	24	10	0,058
R412005001	G 1/2	Ø 8	25,7	8,5	18,5	14	6	16	14	10	0,0519
2121010120	G 1/2	Ø 10	27,4	8,5	21	17	8	19	17	10	0,0582
2121012120	G 1/2	Ø 12	29,5	8,5	22,5	21	8	23	21	10	0,0566
R412005006	G 1/2	Ø16	36,3	8,5	25,5	24	10	27	24	10	0,0667
2121014120	G 1/2	Ø 14	25,6	8,5	24,6	24	11	25	23	10	0,064

Pneumatic connection technologies ▶ Push-In fittings
Series QR1-S Standard
▶ Straight female stud fitting ▶ Internal thread ▶ G 1/8 - G 1/2 ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ QR1-S-RAI


00117318

 Ambient temperature min./max.
 Working pressure min./max.

 +0 °C / +60 °C
 -0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	F	SW	X	Y	Delivery quantity [Piece]	Weight [kg]
2121904180	G 1/8	Ø 4	26,2	9	16	11	14	12	10	10	0,0147
2121906180	G 1/8	Ø 6	27,2	9	17	12	14	14	12	10	0,0156
2121908180	G 1/8	Ø 8	28,5	9	18,5	12	14	16	14	10	0,0179
R412005085	G 1/4	Ø 4	29,2	12	16	14	17	12	10	10	0,0211
2121906140	G 1/4	Ø 6	30,2	12	17	14	17	14	12	10	0,0224
2121908140	G 1/4	Ø 8	31,3	12	18,5	15	17	16	14	10	0,0245
R412005089	G 1/4	Ø 10	34	12	21	13	17	19	17	10	0,028
R412005091	G 1/4	Ø 12	35,5	12	22,5	13	21	23	21	10	0,0515
R412005086	G 3/8	Ø 6	31,2	13	17	15	21	14	12	10	0,0234
R412005087	G 3/8	Ø 8	32,5	13	18,5	16	21	16	14	10	0,0347
2121910380	G 3/8	Ø 10	35	13	21	15	21	19	17	10	0,0377
2121912380	G 3/8	Ø 12	36,5	13	22,5	14	21	23	21	10	0,0499
R412005090	G 1/2	Ø 10	38	16	21	19	24	19	17	10	0,048
2121912120	G 1/2	Ø 12	39,5	16	22,5	19	24	23	21	10	0,0533

Series QR1-S Standard
▶ Bulkhead connector ▶ Internal thread ▶ G 1/8 - G 1/2 ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ QR1-S-RSI


00117330

 Ambient temperature min./max.
 Working pressure min./max.

 +0 °C / +60 °C
 -0,95 bar / 10 bar

Part No.	Port G	Port D	M	A	B	C	E	F	Ø P	SW	Delivery quantity [Piece]	Weight [kg]
2122604180	G 1/8	Ø 4	M12	26,2	9	16	5	11	10	14	10	0,0177
2122606180	G 1/8	Ø 6	M14	27,1	9	17	7,5	9	12	17	10	0,0257
R412005232	G 1/8	Ø 8	M16	31,5	9	18,5	9,2	10	14	19	10	0,0779
2122606140	G 1/4	Ø 6	M14	31,7	12	17	7,5	13,5	12	17	10	0,028
2122608140	G 1/4	Ø 8	M16	35,5	12	18,5	9,2	14	14	19	10	0,0438
R412005233	G 1/4	Ø 10	M20	34	12	21	7	14	17	24	10	0,0658
R412005231	G 3/8	Ø 8	M16	36,5	13	18,5	9,2	15	14	19	10	0,0357
2122610380	G 3/8	Ø 10	M20	35	13	21	7	15	17	24	10	0,069
R412005235	G 3/8	Ø 12	M22	37,5	13	22,5	9,9	15	20	24	10	0,0779
2122612120	G 1/2	Ø 12	M22	41,5	16	22,5	9,9	19	20	24	10	0,08

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Elbow fitting ▶ external thread ▶ M5 - G 1/2 ▶ push-in fitting ▶ Ø 4 - Ø16 ▶ QR1-S-RVT



00119409

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	E	SW	X	Y	Delivery quantity [Piece]	Weight [kg]
2122004050	M5	Ø 4	11,2	4	16	18,7	8	10	12	10	0,0056
2122006050	M5	Ø 6	12,2	4	16	20	8	14	12	10	0,0062
2122004180	G 1/8	Ø 4	9,5	5	16	18,5	13	12	10	10	0,0123
2122006180	G 1/8	Ø 6	10,7	5	17	20,3	13	14	12	10	0,0129
2122008180	G 1/8	Ø 8	14,4	5	18,5	22,6	13	16	14	10	0,0152
R412005094	G 1/8	Ø 10	16,5	5	21	27	16	19	17	10	0,0276
R412005095	G 1/8	Ø 12	18,2	5	22,5	29,2	16	23	21	10	0,039
2122004140	G 1/4	Ø 4	9,5	6	16	18,5	16	12	10	10	0,0171
2122006140	G 1/4	Ø 6	10,7	6	17	20,3	16	14	12	10	0,0193
2122008140	G 1/4	Ø 8	11,5	6	18,5	22,6	16	16	14	10	0,0231
2122010140	G 1/4	Ø 10	16,5	6	21	27	16	19	17	10	0,0287
2122012140	G 1/4	Ø 12	18,3	6	22,5	29,2	16	23	21	10	0,0424
R412005092	G 3/8	Ø 6	11,2	7	17	20,3	20	14	12	10	0,031
2122008380	G 3/8	Ø 8	11,5	7	18,5	22,6	20	16	14	10	0,0328
2122010380	G 3/8	Ø 10	13,6	7	21	27	20	16	17	10	0,0399
2122012380	G 3/8	Ø 12	15,3	7	22,5	29,2	20	23	21	10	0,0436
2122014380	G 3/8	Ø 14	23,1	7	24,6	32,1	20	25	23	5	0,0483
R412005097	G 3/8	Ø16	24,2	7	24,8	33,3	20	27	24	5	0,0611
R412005093	G 1/2	Ø 8	12,5	8,5	18,5	22,6	24	16	14	10	0,049
2122010120	G 1/2	Ø 10	14,1	8,5	21	27	24	19	14	10	0,0505
2122012120	G 1/2	Ø 12	15,8	8,5	22,5	29,2	24	23	21	10	0,0563
2122014120	G 1/2	Ø 14	17,1	8,5	24,6	32,1	24	25	23	5	0,0662
R412005098	G 1/2	Ø16	18,2	8,5	24,8	33,3	24	27	24	5	0,0764

Pneumatic connection technologies ▶ Push-In fittings
Series QR1-S Standard
▶ Elbow fitting long ▶ External thread ▶ M5 - G 1/2 ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ QR1-S-RVL


00117320

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	E	SW	X	Y	Delivery quantity [Piece]	Weight [kg]
2122104050	M5	Ø 4	30,2	4	16	18,3	8	12	10	10	0,0113
R412005099	M5	Ø 6	31,4	4	17	19,5	8	14	12	10	0,0118
2122104180	G 1/8	Ø 4	29,5	5	16	18,3	13	12	10	10	0,0266
2122106180	G 1/8	Ø 6	30,7	5	17	19,5	13	14	12	10	0,0306
2122108180	G 1/8	Ø 8	37	5	18,5	22,7	16	16	14	10	0,034
2122104140	G 1/4	Ø 4	31,5	6	16	18,3	16	12	10	10	0,0372
2122106140	G 1/4	Ø 6	31,7	6	17	19,5	16	14	12	10	0,0439
2122108140	G 1/4	Ø 8	35	6	18,5	22,7	16	16	14	10	0,051
2122110140	G 1/4	Ø 10	54,6	6	21	26,5	16	19	17	10	0,078
R412005103	G 1/4	Ø 12	47,3	6	22,5	28,3	16	23	21	10	0,099
2122108380	G 3/8	Ø 8	36	7	18,5	22,7	20	16	14	10	0,068
2122110380	G 3/8	Ø 10	43,6	7	21	26,5	20	19	17	10	0,088
R412005104	G 3/8	Ø 12	45,3	7	22,5	28,3	20	23	21	10	0,1013
R412005105	G 1/2	Ø 12	47,3	8,5	22,5	28,3	24	23	21	10	0,106

Series QR1-S Standard
▶ Elbow screw fitting ▶ Internal thread ▶ G 1/8 - G 1/4 ▶ push-in fitting ▶ Ø 4 - Ø 10 ▶ QR1-S-RVI


00117321

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	E	F	SW	X	Y	Delivery quantity [Piece]	Weight [kg]
R412005129	G 1/8	Ø 4	26	9	16	18,5	11	14	12	10	10	0,0155
R412005130	G 1/8	Ø 6	26	9	17	20,3	12	14	14	12	10	0,0159
R412005131	G 1/8	Ø 8	26	9	18,5	22,6	12	14	16	14	10	0,023
R412005132	G 1/4	Ø 4	29	12	16	18,5	14	17	12	10	10	0,019
R412005133	G 1/4	Ø 6	29	12	17	20,3	14	17	14	12	10	0,0222
R412005134	G 1/4	Ø 8	29	12	18,5	22,6	15	17	16	14	10	0,0248
R412005135	G 1/4	Ø 10	33	12	21	27	13	17	19	17	10	0,036

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Swivel banjo connection 1-fold ▶ external thread ▶ M5 - G 3/8 ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ QR1-S-RW1



00117331

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	E	F	H	Ø J	SW	X	Y
R412005236	M5	Ø 4	17	11	9	3	20,7	16	10	8	12	10
R412005238	M5	Ø 6	17	11	9	3	23,2	17	10	8	14	12
R412005237	G 1/8	Ø 4	26,5	14	17	4	23,3	16	15	14	12	10
R412005239	G 1/8	Ø 6	26,5	14	17	4	24,8	17	15	14	14	12
R412005240	G 1/8	Ø 8	26,5	14	17	4	26,3	18,5	15	14	16	14
R412005241	G 1/4	Ø 6	32	17,5	19	5	25,9	17	18	17	14	12
R412005242	G 1/4	Ø 8	32	17,5	19	5	26,3	18,5	18	17	16	14
R412005243	G 1/4	Ø 10	32	17,5	19	5	29,8	21	17	17	19	17
R412005244	G 3/8	Ø 8	36,5	19,5	22	6	26,3	18,5	21,5	21	16	14
R412005245	G 3/8	Ø 10	36,5	19,5	22	6	29,8	21	21,5	21	19	17
R412005246	G 3/8	Ø 12	36,5	19,5	22	6	33,3	22,5	21,5	21	23	21

Part No.	Port G	Delivery quantity [Piece]	Weight [kg]									
R412005236	M5	10	0,007									
R412005238	M5	10	0,0077									
R412005237	G 1/8	10	0,0147									
R412005239	G 1/8	10	0,0155									
R412005240	G 1/8	10	0,0164									
R412005241	G 1/4	10	0,0284									
R412005242	G 1/4	10	0,0298									
R412005243	G 1/4	10	0,0325									
R412005244	G 3/8	5	0,0528									
R412005245	G 3/8	5	0,0547									
R412005246	G 3/8	5	0,0577									

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Swivel banjo connection 2-fold ▶ External thread ▶ G 1/8 - G 1/2 ▶ push-in fitting, 2x ▶ Ø 4 - Ø 12 ▶ QR1-S-RW2



00117322

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	E	J	L	SW	Ø P	Delivery quantity [Piece]	Weight [kg]
R412005141	G 1/8	Ø 4	43,2	5	16	22,3	14	13	14	10,4	10	0,0285
R412005144	G 1/8	Ø 6	43,2	5	17	26,5	14	13	14	12,4	10	0,0305
R412005147	G 1/8	Ø 8	43,2	5	18,5	29,1	15	16	17	14,4	10	0,0445
R412005145	G 1/4	Ø 6	43,2	6	17	26,5	14	15	17	12,4	10	0,033
R412005148	G 1/4	Ø 8	45,2	6	18,5	29,1	15	15	17	14,4	10	0,0475
R412005149	G 3/8	Ø 8	46,2	7	18,5	29,1	15	18	21	14,4	10	0,0525
R412005152	G 3/8	Ø 10	54,6	7	21	34,3	18	18	21	17,6	5	0,091
R412005155	G 1/2	Ø 12	66,3	8,5	22,5	38,3	21,8	23,5	27	21,2	5	0,159

Series QR1-S Standard

▶ Banjo bolt, 1x ▶ External thread ▶ G 1/8 - G 1/4 ▶ unrestricted ▶ QR1-S-RH1



00117337

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Ø D	A	B	C	Ø d	E	SW	Delivery quantity [Piece]	Weight [kg]
R412005313	G 1/8	9,7	25,5	21,5	4	5	13	14	10	0,0163
R412005314	G 1/4	13,1	30	25	5	7	15,5	17	10	0,0266

Incl. 2 seals per banjo bolt in scope of delivery

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Banjo bolt, 2x ▶ external thread ▶ G 1/8 - G 1/4 ▶ unrestricted, 2x ▶ QR1-S-RH2



00117338

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Ø D	A	B	C	Ø d	E	F	SW	Delivery quantity [Piece]	Weight [kg]
R412000613	G 1/8	9,7	42,5	38,5	4	5	17	14	14	10	0,0335
R412000614	G 1/4	13,1	59	44	5	7	19	17,5	17	10	0,0365

Incl. 3 seals per banjo bolt in scope of delivery

Series QR1-S Standard

▶ Banjo bolt, 3x ▶ external thread ▶ G 1/8 - G 1/4 ▶ unrestricted, 3x ▶ QR1-S-RH3



00117339

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Ø D	A	B	C	Ø d	E	F	H	SW	Delivery quantity [Piece]
R412005319	G 1/8	9,7	59,5	55,5	4	5	17	17	13	14	10
R412000615	G 1/4	13,1	68	63	5	7	19	19	15,5	17	10

Part No.	Weight [kg]										
R412005319	0,036										
R412000615	0,039										

Incl. 4 seals per banjo bolt in scope of delivery

Pneumatic connection technologies ▶ Push-In fittings
Series QR1-S Standard
▶ 1x banjo union ▶ unrestricted ▶ G 1/8 - G 1/4 ▶ push-in fitting ▶ Ø 4 - Ø 10 ▶ QR1-S-RV1


00119353

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø D2	A	B	C	Ø P	X	Y	Delivery quantity [Piece]	Weight [kg]
R412000617	G 1/8	Ø 4	9,8	19	16	17	15	12	10	10	0,0022
R412000623	G 1/8	Ø 6	9,8	24,8	17	17	15	14	12	10	0,003
R412000618	G 1/8	Ø 8	9,8	21,6	18,5	19	15	16	14	10	0,0041
R412000624	G 1/4	Ø 6	13,2	20,9	17	17	18	14	12	10	0,0035
R412000619	G 1/4	Ø 8	13,2	21,6	18,5	19	18	16	14	10	0,0045
R412005303	G 1/4	Ø 10	13,2	24	21	22	18	19	17	10	0,0072

Series QR1-S Standard
▶ 2x banjo union ▶ unrestricted ▶ G 1/8 - G 1/4 ▶ push-in fitting ▶ Ø 6 - Ø 10 ▶ QR1-S-RT1


00117336

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	Ø D2	Ø d2	E	F	X	Y	Delivery quantity [Piece]
R412000625	G 1/8	Ø 6	39,9	17	19,8	15	9,8	17	8,5	14	12	10
R412005306	G 1/8	Ø 8	43,2	18,5	21,6	15	9,8	17	8,5	16	14	10
R412000626	G 1/4	Ø 6	41,8	19	20,9	18	13,2	19	9,5	14	12	10
R412000622	G 1/4	Ø 8	43,2	18,5	21,9	18	13,2	19	9,5	16	14	10
R412005308	G 1/4	Ø 10	48	21	24	18	13,2	19	9,5	19	17	10

Part No.	Port G	Weight [kg]										
R412000625	G 1/8	0,0056										
R412005306	G 1/8	0,0077										
R412000626	G 1/4	0,0065										
R412000622	G 1/4	0,009										
R412005308	G 1/4	0,0134										

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ T - Fitting ▶ external thread ▶ M5 - G 1/2 ▶ push-in fitting, 2x ▶ Ø 4 - Ø16 ▶ QR1-S-RTT



00117326

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	E	SW	X	Y	Delivery quantity [Piece]	Weight [kg]
2122204050	M5	Ø 4	20,5	4	16	18,3	10	12	10	10	0,0111
R412005201	M5	Ø 6	21,5	5	17	20,4	12	14	12	10	0,0137
2122204180	G 1/8	Ø 4	21,6	5	16	18,1	10	12	10	10	0,0144
2122206180	G 1/8	Ø 6	21,9	5	17	20,4	12	14	12	10	0,0152
2122208180	G 1/8	Ø 8	22,5	5	18,5	22,7	14	16	14	10	0,0187
R412005205	G 1/8	Ø 10	29	5	21	26,1	17	19	17	10	0,0354
2122204140	G 1/4	Ø 4	22,6	6	16	18,1	17	12	10	10	0,0192
2122206140	G 1/4	Ø 6	23,9	6	17	20,4	17	14	12	10	0,0218
2122208140	G 1/4	Ø 8	24,5	6	18,5	22,7	17	16	14	10	0,0266
2122210140	G 1/4	Ø 10	30	6	21	26,1	17	19	17	10	0,035
R412005206	G 1/4	Ø 12	32	6	22,5	29,3	21	23	21	10	0,0504
R412005203	G 3/8	Ø 6	25,9	7	17	20,4	20	14	12	10	0,0335
2122208380	G 3/8	Ø 8	25,8	7	18,5	22,7	20	16	14	10	0,0341
2122210380	G 3/8	Ø 10	31	7	21	26,1	20	19	17	10	0,0363
2122212380	G 3/8	Ø 12	33	7	22,5	29,3	21	23	21	10	0,0519
2122214380	G 3/8	Ø 14	30,1	7	24,6	32,1	20	25	23	10	0,0507
2122210120	G 1/2	Ø 10	32,5	8,5	21	26,1	24	19	17	10	0,0574
2122212120	G 1/2	Ø 12	34,5	8,5	22,5	29,3	24	23	21	5	0,0519
2122214120	G 1/2	Ø 14	25,6	8,5	24,6	32,1	24	25	23	5	0,0503
R412005209	G 1/2	Ø16	40,8	8,5	24,8	33,3	24	27	24	5	0,114

Pneumatic connection technologies ▶ Push-In fittings
Series QR1-S Standard
▶ Swivel T-piece ▶ External thread ▶ G 1/8 - G 1/4 ▶ push-in fitting, 2x ▶ Ø 6 - Ø 8 ▶ QR1-S-RTS


00117334

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø D2	A	B	C	E	F	H	J	SW	X
R412005292	G 1/8	Ø 6	15	26,5	14	49,6	24,8	17	17	4	14	14
R412005293	G 1/8	Ø 8	15	26,5	14	52,6	26,3	18,5	17	4	14	16
R412005294	G 1/4	Ø 6	18	32	17,5	51,8	25,9	17	19	5	17	14
R412005295	G 1/4	Ø 8	18	32	17,5	52,6	26,3	18,5	19	5	17	16

Part No.	Port G	Y	Delivery quantity [Piece]	Weight [kg]								
R412005292	G 1/8	12	10	0,0295								
R412005293	G 1/8	14	10	0,0425								
R412005294	G 1/4	12	10	0,031								
R412005295	G 1/4	14	10	0,0455								

Series QR1-S Standard
▶ Elbow fitting ▶ External thread ▶ M5 - G 1/2 ▶ push-in fitting, 2x ▶ Ø 4 - Ø 12 ▶ QR1-S-RLT


00117327

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	E	SW	X	Y	Delivery quantity [Piece]	Weight [kg]
2122304050	M5	Ø 4	22,1	4	16	18,5	10	12	10	10	0,0111
R412005212	M5	Ø 6	23	4	17	20,4	12	14	12	10	0,0136
2122304180	G 1/8	Ø 4	21,6	5	16	18,1	14	12	10	10	0,0144
2122306180	G 1/8	Ø 6	21,9	5	17	20,4	14	14	12	10	0,0152
R412005214	G 1/8	Ø 8	22,5	5	18,5	22,7	14	16	14	10	0,0185
R412005211	G 1/4	Ø 4	22,6	6	16	18,1	17	12	10	10	0,0192
2122306140	G 1/4	Ø 6	23,9	6	17	20,4	17	14	12	10	0,0221
2122308140	G 1/4	Ø 8	24,5	6	18,5	22,7	17	16	14	10	0,0268
R412005215	G 1/4	Ø 10	30	6	21	26,1	17	19	17	10	0,0353
R412005216	G 1/4	Ø 12	32	6	22,5	29,3	21	23	21	5	0,0496
2122308380	G 3/8	Ø 8	25,5	7	18,5	22,7	20	16	14	10	0,0342
2122310380	G 3/8	Ø 10	31	7	21	26,1	20	19	17	10	0,0463
2122312380	G 3/8	Ø 12	33	7	22,5	29,3	21	23	21	5	0,0517
2122310120	G 1/2	Ø 10	32,5	8,5	21	26,1	24	19	17	10	0,0574
2122312120	G 1/2	Ø 12	34,5	8,5	22,5	29,3	24	23	21	5	0,0643

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Y - Fitting ▶ external thread ▶ G 1/8 - G 1/2 ▶ push-in fitting, 2x ▶ Ø 4 - Ø 12 ▶ QR1-S-RAY



00117328

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	A	B	C	J	SW	F	X	Y	Delivery quantity [Piece]
2122404180	G 1/8	Ø 4	2,2	42,2	5	15,2	9,6	10	15,2	12	10	10
2122406180	G 1/8	Ø 6	3,2	43,7	5	17	12	12	17	14	12	10
2122408180	G 1/8	Ø 8	3,2	47,7	5	17,3	14	14	17,3	16	14	10
2122404140	G 1/4	Ø 4	2,2	43,2	6	15,2	9,6	12	15,2	12	10	10
2122406140	G 1/4	Ø 6	3,2	45,7	6	17	12	14	17	14	12	10
2122408140	G 1/4	Ø 8	3,2	49,7	6	17,3	14	14	17,3	16	14	10
2122410140	G 1/4	Ø 10	4,2	56,2	6	21,5	18	17	21,5	19	17	10
R412005221	G 3/8	Ø 8	3,2	51,7	7	17,3	14	17	17,3	16	14	10
2122410380	G 3/8	Ø 10	4,2	58,2	7	21,5	18	17	21,5	19	17	10
2122412380	G 3/8	Ø 12	4,2	59,7	7	21	20	21	21	23	21	10
2122410120	G 1/2	Ø 10	4,2	59,7	8,5	21,5	18	19	21,5	19	17	10
2122412120	G 1/2	Ø 12	4,2	62,2	8,5	21	20	21	21	23	21	10

Part No.	Port G	Weight [kg]										
2122404180	G 1/8	0,0147										
2122406180	G 1/8	0,0157										
2122408180	G 1/8	0,0196										
2122404140	G 1/4	0,0197										
2122406140	G 1/4	0,0222										
2122408140	G 1/4	0,0276										
2122410140	G 1/4	0,0365										
R412005221	G 3/8	0,0349										
2122410380	G 3/8	0,048										
2122412380	G 3/8	0,0527										
2122410120	G 1/2	0,0585										
2122412120	G 1/2	0,0656										

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Straight Plug connector ▶ push-in fitting ▶ Ø 4 - Ø16 ▶ push-in fitting ▶ Ø 4 - Ø16 ▶ QR1-S-RSK



00117312

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	X	Y	Delivery quantity [Piece]	Weight [kg]				
2121504000	Ø 4	Ø 4	33,4	16	12	10	10	0,0045				
2121506000	Ø 6	Ø 6	35,4	17	14	12	10	0,0056				
2121508000	Ø 8	Ø 8	39	18,5	16	14	10	0,0077				
2121510000	Ø 10	Ø 10	43	21	19	17	10	0,0134				
2121512000	Ø 12	Ø 12	47	22,5	23	21	10	0,0188				
2121514000	Ø 14	Ø 14	51,2	24,6	25	23	5	0,0247				
R412005059	Ø16	Ø16	62,2	24,8	27	24	5	0,0353				

Series QR1-S Standard

▶ Straight Plug connector, reducing ▶ push-in fitting ▶ Ø 6 - Ø16 ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ QR1-S-RSR



00117313

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B1	B2	X1	X2	Y1	Y2	Delivery quantity [Piece]	Weight [kg]	
R412005060	Ø 6	Ø 4	34,9	17	16	14	12	12	10	10	0,0052	
R412005061	Ø 8	Ø 4	37,2	18,5	17	16	12	14	10	10	0,0131	
R412005062	Ø 8	Ø 6	37,2	18,5	17	16	14	14	12	10	0,0069	
R412005063	Ø 10	Ø 6	41	21	18,5	19	14	17	12	10	0,0202	
R412005064	Ø 10	Ø 8	41	21	18,5	19	16	17	14	10	0,0109	
R412005065	Ø 12	Ø 8	45	22,5	21	23	16	21	14	10	0,0289	
R412005066	Ø 12	Ø 10	45	22,5	21	23	19	21	17	10	0,0164	
R412005067	Ø16	Ø 12	51,8	24,8	22,5	27	23	24	21	5	0,0272	

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Bulkhead plug connector, metal ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ QR1-S-RSM



00117309

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	M	A	B	C	E 1)	Ø P	SW	Delivery quantity [Piece]	Weight [kg]
2121404000	Ø 4	Ø 4	M12x1,0	33,4	10,2	16	13	10	14	10	0,018
2121406000	Ø 6	Ø 6	M14x1,0	35,9	10,7	17	14,5	12	17	10	0,0253
2121408000	Ø 8	Ø 8	M16x1,0	38,5	12,3	18,5	13,9	14	19	10	0,0339
2121410000	Ø 10	Ø 10	M20x1,0	43,5	13	21	17,5	17	24	10	0,0592
2121412000	Ø 12	Ø 12	M22x1,0	46,2	12,6	22	21	20	26	10	0,0781

1) Max.

Series QR1-S Standard

▶ Bulkhead plug connector, plastic ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ QR1-S-RSC



00117310

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	M	A	B	C	E 1)	H	Ø P	Ø P1	SW
R412005051	Ø 4	Ø 4	M12x1,5	32,2	15,6	16	7,8	5	10,4	16	14
R412005052	Ø 6	Ø 6	M14x1,5	36	17,2	17	9,2	5	12,4	18	17
R412005053	Ø 8	Ø 8	M16x1,5	38,5	18,4	18,5	9,2	6	14,4	22	19
R412005054	Ø 10	Ø 10	M20x2,0	43,6	21	21	10,8	6	17,6	28	24
R412005055	Ø 12	Ø 12	M24x2,0	47,6	22,5	22,5	16,2	6	21,2	31	27

Part No.	Port G	Delivery quantity [Piece]	Weight [kg]								
R412005051	Ø 4	10	0,007								
R412005052	Ø 6	10	0,0095								
R412005053	Ø 8	10	0,0135								
R412005054	Ø 10	10	0,023								
R412005055	Ø 12	10	0,031								

1) Max.

Pneumatic connection technologies ▶ Push-In fittings
Series QR1-S Standard
▶ Angled plug connector ▶ push-in fitting ▶ Ø 4 - Ø16 ▶ push-in fitting ▶ Ø 4 - Ø16 ▶ QR1-S-RVK


00117304

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	A	B	F	X	Y	Delivery quantity [Piece]	Weight [kg]		
2121204000	Ø 4	Ø 4	2,2	18,7	16	6	12	10	10	0,0047		
2121206000	Ø 6	Ø 6	3,2	20,4	17	8	14	12	10	0,0062		
2121208000	Ø 8	Ø 8	4,2	22,8	18,5	10	16	14	10	0,0087		
2121210000	Ø 10	Ø 10	4,2	26,1	21	12	19	17	10	0,0151		
2121212000	Ø 12	Ø 12	4,2	29	22,5	14	23	21	10	0,0207		
2121214000	Ø 14	Ø 14	-	32,1	24,6	13,5	25	23	5	0,0367		
R412005033	Ø16	Ø16	5,3	31,1	24,8	16,3	27	24	5	0,0365		

Series QR1-S Standard
▶ Angled bulkhead connector ▶ push-in fitting ▶ Ø 4 - Ø 10 ▶ push-in fitting ▶ Ø 4 - Ø 10 ▶ QR1-S-RVS


00117311

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	M	A	B1	B2	C	F	H	P	SW	X
R412005056	Ø 4	Ø 4	M12x1,5	33,6	15,6	16	19,8	16,6	5	17	14	12
R412005057	Ø 6	Ø 6	M14x1,5	37,9	23	17	17,2	15	5	20,5	17	14
R412005375	Ø 8	Ø 8	M16x1,5	41,9	18,6	18,5	25,7	16	6	23	19	16
R412005376	Ø 10	Ø 10	M20x2,0	47,6	21,4	21	30,3	18	6	29	24	19

Part No.	Port G	Y	Delivery quantity [Piece]	Weight [kg]								
R412005056	Ø 4	10	10	0,011								
R412005057	Ø 6	12	10	0,0125								
R412005375	Ø 8	14	10	0,0185								
R412005376	Ø 10	17	10	0,029								

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Plug connector, 3x, reducing ▶ push-in fitting, 2x ▶ Ø 6 - Ø 10 ▶ push-in fitting, 3x ▶ Ø 4 - Ø 8 ▶ QR1-S-RMT



00117347

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ødx	A	B1	B2	C	J	F	X1	X2	Y1
R412005346	Ø 6	Ø 4	3,2	59,4	17	16	34	10	8	14	12	12
R412005347	Ø 8	Ø 4	3,2	61,8	18,5	16	34	10	9	16	12	14
R412005348	Ø 8	Ø 6	3,2	61,8	18,5	17	40	12	9	16	14	14
R412005349	Ø 10	Ø 6	4,2	85,4	21	17	42	12	10,5	19	14	17
R412005350	Ø 10	Ø 8	4,2	85,4	21	18,5	48	14	10,5	19	16	17

Part No.	Port G	Y2	Delivery quantity [Piece]	Weight [kg]								
R412005346	Ø 6	10	10	0,0137								
R412005347	Ø 8	10	10	0,0168								
R412005348	Ø 8	12	10	0,0186								
R412005349	Ø 10	12	10	0,0276								
R412005350	Ø 10	14	10	0,0312								

Series QR1-S Standard

▶ T - Plug connector ▶ push-in fitting ▶ Ø 4 - Ø16 ▶ push-in fitting ▶ Ø 4 - Ø16 ▶ QR1-S-RTK



00117302

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	A	B	F	X	Y	Delivery quantity [Piece]	Weight [kg]		
2121104000	Ø 4	Ø 4	2,2	18,5	16	6	12	10	10	0,007		
2121106000	Ø 6	Ø 6	3,2	20,4	17	8	14	12	10	0,0094		
2121108000	Ø 8	Ø 8	3,2	22,8	18,5	9	16	14	10	0,0126		
2121110000	Ø 10	Ø 10	4,2	26,1	21	12	19	17	10	0,0221		
2121112000	Ø 12	Ø 12	4,2	29	22,5	14	23	21	10	0,0307		
2121114000	Ø 14	Ø 14	-	32,1	24,6	13,5	25	23	5	0,0409		
R412005025	Ø 16	Ø 16	5,3	31,1	22,6	16,6	27	24	5	0,0523		

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ T - Plug connector, reducing ▶ push-in fitting, 2x ▶ Ø 6 - Ø 12 ▶ push-in fitting ▶ Ø 4 - Ø 10 ▶ QR1-S-RTR



00117303

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	d2	A	B	C	E	F	H	X	Y
R412005026	Ø 6	Ø 4	3,2	10,4	40,8	20,4	14	19,1	7,8	17	14	12
R412005027	Ø 8	Ø 4	4,2	12,4	45,4	22,7	16,4	21	8,6	18,5	16	12
R412005028	Ø 8	Ø 6	4,2	12,4	45,4	22,7	16,4	21,7	8,6	18,5	16	14
R412005029	Ø 10	Ø 6	4,2	14,4	52,2	26,1	18,8	23,7	10,8	21	19	14
R412005030	Ø 10	Ø 8	4,2	14,4	52,2	26,1	18,8	23,4	10,8	21	19	17
R412005031	Ø 12	Ø 8	4,2	17,4	58,6	29,3	23	26	13	22,5	23	17
R412005032	Ø 12	Ø 10	4,2	17,4	58,6	29,3	23	27,1	13	22,5	23	21

Part No.	Port G	Delivery quantity [Piece]	Weight [kg]									
R412005026	Ø 6	10	0,009									
R412005027	Ø 8	10	0,0152									
R412005028	Ø 8	10	0,012									
R412005029	Ø 10	10	0,0237									
R412005030	Ø 10	10	0,02									
R412005031	Ø 12	10	0,0344									
R412005032	Ø 12	10	0,028									

Series QR1-S Standard

▶ Y - Plug connector ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ push-in fitting, 2x ▶ Ø 4 - Ø 12 ▶ QR1-S-RYK



00117317

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	A	B	J	F	X	Y	Delivery quantity [Piece]	Weight [kg]
2121804000	Ø 4	Ø 4	2,2	35,9	16	9,6	15,2	12	10	10	0,007
2121806000	Ø 6	Ø 6	3,2	39,4	17	12	17	14	12	10	0,0091
2121808000	Ø 8	Ø 8	3,2	43,5	18,5	14	17,3	16	14	10	0,013
2121810000	Ø 10	Ø 10	4,2	50	21	18	21,5	19	17	10	0,0226
2121812000	Ø 12	Ø 12	4,2	53	22,5	20,8	21	23	21	10	0,0305

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Y - Plug connector, reducing ▶ push-in fitting ▶ Ø 6 - Ø 12 ▶ push-in fitting, 2x ▶ Ø 4 - Ø 10 ▶ QR1-S-RYR



00117317

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	A	B1	B2	J	F	X1	X2	Y1	Y2
2121806040	Ø 6	Ø 4	2,2	36,9	16	17	9,3	15,2	14	12	12	10
R412005081	Ø 8	Ø 4	3,2	40,7	17	18,5	12	16,2	16	12	14	10
2121808060	Ø 8	Ø 6	3,2	40,7	17	18,5	12	16,9	16	14	14	12
2121810080	Ø 10	Ø 8	4,2	49,5	18,5	21	14	20	19	16	17	14
R412005082	Ø 10	Ø 6	4,2	49,5	18,5	21	14	19,4	19	14	17	12
R412005080	Ø 12	Ø 10	4,2	53,5	21	22,5	16	21,5	23	19	21	17
R412005083	Ø 12	Ø 8	4,2	53,5	21	22,5	16	20,2	23	16	17	14

Part No.	Port G	Delivery quantity [Piece]	Weight [kg]									
2121806040	Ø 6	10	0,0076									
R412005081	Ø 8	10	0,0143									
2121808060	Ø 8	10	0,0101									
2121810080	Ø 10	10	0,0164									
R412005082	Ø 10	10	0,0228									
R412005080	Ø 12	10	0,0255									
R412005083	Ø 12	10	0,0331									

Series QR1-S Standard

▶ Y - Plug connector, reducing, double ▶ push-in fitting ▶ Ø 6 - Ø 8 ▶ push-in fitting, 4x ▶ Ø 4 - Ø 6 ▶ QR1-S-RYD



00117346

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	A	B	F	J	Ø P1	Ø P2	Delivery quantity [Piece]	Weight [kg]
R412005344	Ø 6	Ø 4	3,2	37,2	17	14,2	10,4	13	10,4	10	0,0128
R412005345	Ø 8	Ø 6	3,5	40,6	18,5	16,9	13	14,4	13	10	0,0175

Pneumatic connection technologies ▶ Push-In fittings
Series QR1-S Standard
▶ X - Plug connector ▶ push-in fitting ▶ Ø 4 - Ø 10 ▶ push-in fitting, 3x ▶ Ø 4 - Ø 10 ▶ QR1-S-RXS


00117350

 Ambient temperature min./max.
 Working pressure min./max.

 +0°C / +60°C
 -0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	A	B	F	X	Y	Delivery quantity [Piece]	Weight [kg]		
R412005361	Ø 4	Ø 4	2,2	18,7	16	6	12	10	10	0,009		
R412005362	Ø 6	Ø 6	3,2	20,4	17	8	14	12	10	0,0119		
R412005363	Ø 8	Ø 8	4,2	22,8	18,5	9	16	14	10	0,0162		
R412005364	Ø 10	Ø 10	4,2	26,1	21	12	19	17	10	0,0288		

Series QR1-S Standard
▶ Straight push-in fitting, reducing ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ pin bushing ▶ Ø 6 - Ø 14 ▶ QR1-S-RED


00117315

 Ambient temperature min./max.
 Working pressure min./max.

 +0°C / +60°C
 -0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	X	Y	Delivery quantity [Piece]	Weight [kg]			
2121706040	Ø 4	Ø 6	40,6	18,2	16	12	10	10	0,0032			
2121708040	Ø 4	Ø 8	42,6	18,2	16	12	10	10	0,0038			
2121708060	Ø 6	Ø 8	43,3	19,2	17	14	12	10	0,0042			
2121710040	Ø 4	Ø 10	41,3	17,6	16	12	10	10	0,0037			
2121710060	Ø 6	Ø 10	45,3	19,2	17	14	12	10	0,0049			
2121710080	Ø 8	Ø 10	47,4	20,5	18,5	16	14	10	0,0061			
2121712060	Ø 6	Ø 12	48,2	19,2	17	14	12	10	0,0059			
2121712080	Ø 8	Ø 12	49,4	20,5	18,5	16	14	10	0,007			
2121712100	Ø 10	Ø 12	52	23	21	19	17	10	0,0099			
2121714080	Ø 8	Ø 14	55,4	20,4	18,5	16	14	5	0,0085			
2121714100	Ø 10	Ø 14	58	23	21	19	17	5	0,013			
2121714120	Ø 12	Ø 14	60,3	25,3	22,5	23	21	5	0,0151			

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Angled plug-in connector ▶ pin bushing ▶ Ø 4 - Ø 12 ▶ mounting screw ▶ Ø 4 - Ø 12 ▶ QR1-S-RVA



00117305

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	X	Y	Delivery quantity [Piece]	Weight [kg]			
2121304040	Ø 4	Ø 4	32,6	16	18,7	12	10	10	0,0047			
2121306060	Ø 6	Ø 6	37	17	21,1	14	12	10	0,0054			
2121308080	Ø 8	Ø 8	42	18,5	22,8	16	14	10	0,008			
2121310100	Ø 10	Ø 10	48	21	26,1	19	17	10	0,015			
R412005036	Ø 12	Ø 12	53,9	22,5	24,3	23	21	10	0,0214			

Series QR1-S Standard

▶ Angled plug-in connector ▶ pin bushing long ▶ Ø 4 - Ø 12 ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ QR1-S-RLI



00117307

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	X	Y	Delivery quantity [Piece]	Weight [kg]			
R412005039	Ø 4	Ø 4	43,6	16	18,7	12	10	10	0,004			
R412005040	Ø 6	Ø 6	47,5	17	21,1	14	12	10	0,0055			
R412005041	Ø 8	Ø 8	54,5	18,5	22,8	16	14	10	0,0085			
R412005042	Ø 10	Ø 10	62	21	26,1	19	17	10	0,0135			
R412005043	Ø 12	Ø 12	69,9	22,5	29,3	23	21	10	0,0192			

Series QR1-S Standard

▶ Angled plug-in connector ▶ push-in fitting reducing ▶ Ø 4 - Ø 8 ▶ pin bushing ▶ Ø 6 - Ø 10 ▶ QR1-S-RVR



00117307

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	X	Y	Delivery quantity [Piece]	Weight [kg]			
2121304060	Ø 4	Ø 6	33,3	17	18,7	12	10	10	0,005			
2121306080	Ø 6	Ø 8	41,3	18,5	21,1	14	12	10	0,007			
R412005034	Ø 8	Ø 10	43,6	21	22,8	16	14	10	0,011			

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ T - push-in fitting ▶ pin bushing ▶ Ø 6 - Ø 12 ▶ push-in fitting, 2x ▶ Ø 6 - Ø 12 ▶ QR1-S-RTC



00119357

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	C	X	Y	Delivery quantity [Piece]	Weight [kg]			
2122706000	Ø 6	Ø 6	40,6	42,6	17	14	12	10	0,0085			
2122708000	Ø 8	Ø 8	45,7	45,2	18,5	16	14	10	0,0127			
R412010596	Ø 12	Ø 12	58	53	22,5	23	21	10	0,032			

Series QR1-S Standard

▶ Y - push-in fitting ▶ pin bushing ▶ Ø 4 - Ø 12 ▶ push-in fitting, 2x ▶ Ø 4 - Ø 12 ▶ QR1-S-RY2



00117343

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	A	B	J	F	X	Y	Delivery quantity [Piece]	Weight [kg]	
R412005332	Ø 4	Ø 4	2,2	48,8	16	9,6	15,2	12	10	10	0,0072	
R412005333	Ø 6	Ø 6	3,2	54,7	17	12	16,9	14	12	10	0,0085	
R412005334	Ø 8	Ø 8	3,2	62,7	18,5	14	20,2	16	14	10	0,0123	
R412005335	Ø 10	Ø 10	4,2	71,2	21	18	21,5	19	17	10	0,0231	
R412005336	Ø 12	Ø 12	4,2	77,7	22,5	20,8	21,5	23	21	10	0,0308	

Series QR1-S Standard

▶ Y - push-in fitting, reducing ▶ push-in fitting, 2x ▶ Ø 4 - Ø 10 ▶ pin bushing ▶ Ø 6 - Ø 12 ▶ QR1-S-R2R



00117344

Ambient temperature min./max.

+0°C / +60°C

Working pressure min./max.

-0,95 bar / 10 bar

Part No.	Port G	Port D	Ø dx	A	B	J	F	X	Y	Delivery quantity [Piece]	Weight [kg]	
R412005337	Ø 4	Ø 6	2,2	55,2	17	9,6	14	12	10	10	0,0073	
R412005338	Ø 6	Ø 8	3,2	58,7	18,5	12	16,9	14	12	10	0,0092	
R412005339	Ø 8	Ø 10	3,2	64,7	21	14	17,2	16	14	10	0,0134	
R412005340	Ø 10	Ø 12	4,2	75,2	22,5	18	21,6	19	17	10	0,0241	

Pneumatic connection technologies ▶ Push-In fittings

Series QR1-S Standard

▶ Y - push-in fitting, reducing, double ▶ pin bushing ▶ Ø 4 ▶ push-in fitting, 4x ▶ Ø 6 - Ø 8 ▶ QR1-S-RY4



00117345

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	Port D	Ødx	A	B	F	J	ØP1	ØP2	Delivery quantity [Piece]	Weight [kg]
R412005341	Ø 4	Ø 6	3,2	55,2	16	14,2	10,4	10,4	13	10	0,0128
R412005342	Ø 4	Ø 8	3,5	59,7	16	16,9	10,4	10,4	13	10	0,0135

Series QR1-S Standard

▶ Sealing cap ▶ push-in fitting ▶ Ø 4 - Ø 12 ▶ QR1-S-RCA



00117351

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	A	B	X	Y	Delivery quantity [Piece]	Weight [kg]
R412005111	Ø 4	17,7	16	12	10	20	0,0022
R412005112	Ø 6	18,7	17	14	12	20	0,003
R412005113	Ø 8	20,5	18,5	16	14	20	0,0041
R412005114	Ø 10	23,5	21	19	17	20	0,0072
R412005115	Ø 12	25,5	22,5	23	21	20	0,0098

Series QR1-S Standard

▶ Blanking plug ▶ pin bushing ▶ Ø 4 - Ø 16 ▶ QR1-S-RBS



00136364

Ambient temperature min./max.
Working pressure min./max.

+0°C / +60°C
-0,95 bar / 10 bar

Part No.	Port G	A	B	Ø P1	Ø P2	Delivery quantity [Piece]	Weight [kg]
2123204000	Ø 4	28	16	3	4	20	0,0004
2123206000	Ø 6	32	17	4	6	20	0,0007
2123208000	Ø 8	39	18,5	5	8	20	0,0014
2123210000	Ø 10	42	21	8	10	20	0,002
2123212000	Ø 12	44	22,5	8	12	20	0,0036
2123214000	Ø 14	45	24,6	8	14	10	0,005
R412005331	Ø 16	46	24,8	10	16	10	0,004

Pneumatic connection technologies > Push-In fittings
Series QR1-S Standard
> Connection pieces > pin bushing > Ø 4 - Ø 12 > pin bushing > Ø 4 - Ø 12 > QR1-S-RDS


00117340

 Ambient temperature min./max.
 Working pressure min./max.

 +0°C / +60°C
 -0,95 bar / 10 bar

Part No.	Port G	Port D	A	B	Delivery quantity [Piece]	Weight [kg]						
2123104000	Ø 4	Ø 4	35	16	20	0,0005						
2123106000	Ø 6	Ø 6	37	17	20	0,0009						
2123108000	Ø 8	Ø 8	39,5	18,5	20	0,0017						
2123110000	Ø 10	Ø 10	46	21	20	0,003						
2123112000	Ø 12	Ø 12	50	22,5	20	0,0044						

Series QR1-S Standard
> Connection pieces, reducing > pin bushing > Ø 6 - Ø 12 > pin bushing > Ø 4 - Ø 10 > QR1-S-RDR


00117341

 Ambient temperature min./max.
 Working pressure min./max.

 +0°C / +60°C
 -0,95 bar / 10 bar

Part No.	Port G	Port D	B	C1	C2	Delivery quantity [Piece]	Weight [kg]					
R412005323	Ø 6	Ø 4	36	17	16	10	0,0007					
R412005324	Ø 8	Ø 4	38	18,9	18	10	0,0009					
R412005325	Ø 8	Ø 6	39	18,5	17	10	0,0015					
R412005326	Ø 10	Ø 6	42	21,9	19	10	0,0016					
R412005327	Ø 10	Ø 8	43	21	18,5	10	0,0028					
R412005328	Ø 12	Ø 8	45	23,9	20	10	0,0026					
R412005329	Ø 12	Ø 10	48	22,5	21	10	0,0049					

Pneumatic connection technologies ▶ Push-In fittings

Series QR2-S standard

▶ Straight fitting ▶ External thread ▶ M5 - G 1/2 ▶ Push-in fitting ▶ Ø 4 - Ø16 ▶ QR2-S-RPN



00136711

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø E	H	L	SW 1	SW 2	Delivery quantity [Pieces]	Weight [kg]
1823373038	M5	Ø 4	9	4	20,5	2,5	–	25	0,006
1823373039	M5	Ø 5	9,5	4	22	2,5	–	10	0,007
1823373040	M5	Ø 6	10,5	4	22	2,5	–	25	0,01
1823373100	M7	Ø 4	10,8	6	22	2,5	9	25	0,007
1823373088	M7	Ø 6	10,5	6	24	3,5	–	25	0,005
1823373041	G 1/8	Ø 4	13,5	6	20	2,5	9	25	0,005
1823373042	G 1/8	Ø 5	13,5	6	22	4	10	10	0,01
1823373043	G 1/8	Ø 6	13,5	6	24	4	11	25	0,011
1823373044	G 1/8	Ø 8	13	6	26,5	5	13	25	0,012
1823373045	G 1/4	Ø 4	17	8	21	2,5	9	25	0,012
1823373046	G 1/4	Ø 5	17	8	22	4	10	10	0,013
1823373047	G 1/4	Ø 6	17	6,5	22,5	4	11	25	0,015
1823373048	G 1/4	Ø 8	17	8	25	6	13	10	0,016
1823373049	G 1/4	Ø 10	16	8	29,5	7	16	10	0,026
1823391809	G 1/4	Ø 12	16	6,5	30	7	18	10	0,031
R412004708	G 1/4	Ø 12	17	8,3	31	7	–	10	0,022
1823373050	G 3/8	Ø 8	20	9	25	6	13	10	0,021
1823373051	G 3/8	Ø 10	21	9	29,5	8	16	10	0,028
1823373052	G 3/8	Ø 12	21	9	31	10	18	5	0,038
1823373053	G 3/8	Ø 14	21	9	34	10	21	5	0,059
1823373054	G 1/2	Ø 12	24	11	31	10	18	5	0,048
1823373055	G 1/2	Ø 14	24	11	34	12	21	5	0,064
R412007955	G 1/2	Ø16	24	11	37	12	24	1	0,072

Series QR2-S standard

▶ Straight female stud fitting ▶ Internal thread ▶ G 1/8 - G 1/4 ▶ Push-in fitting ▶ Ø 4 - Ø 8 ▶ QR2-S-RAI



00110651

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø B	H	L	SW	Delivery quantity [Pieces]	Weight [kg]				
1823391643	G 1/8	Ø 4	11	6	26,5	9	10	0,01				
1823391644	G 1/8	Ø 5	12	6	27	10	10	0,01				
1823391645	G 1/8	Ø 6	11	6	27	11	10	0,011				
1823391646	G 1/8	Ø 8	11	6	28	13	10	0,015				
1823391647	G 1/4	Ø 4	16	10	29,5	9	10	0,014				
1823391648	G 1/4	Ø 5	16	10	30	10	10	0,016				
1823391649	G 1/4	Ø 6	16	10	31	11	10	0,018				
1823391650	G 1/4	Ø 8	16	10	32	13	10	0,02				

Series QR2-S standard

▶ Bulkhead connector ▶ Internal thread ▶ G 1/8 - G 1/4 ▶ Push-in fitting ▶ Ø 4 - Ø 8 ▶ QR2-S-RSI



00127676

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port G	Port D	M	A	B	C	E ±2 1)	SW1	SW2	Delivery quantity [Pieces]		
1823391757	G 1/8	Ø 4	M10x1	25	8,5	15	9,5	15	13	10		
1823391758	G 1/8	Ø 6	M14x1	26	8,5	15	9,5	17	17	10		
1823391759	G 1/4	Ø 6	M14x1	30,5	13	15	9,5	17	17	10		
1823391760	G 1/8	Ø 8	M16x1	28	8,5	15	9,5	17	19	10		
1823391761	G 1/4	Ø 8	M16x1	33	13	15	9,5	17	19	10		

1) Max.

Pneumatic connection technologies ▶ Push-In fittings

Series QR2-S standard

▶ Push-in connector ▶ External thread ▶ M5 - G 1/2 ▶ Pin bushing ▶ Ø 4 - Ø 14 ▶ QR2-S-RAS



1100-221

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø E	H	L	SW	Delivery quantity [Pieces]	Weight [kg]				
1823373056	M5	Ø 4	8	4	24,5	8	25	0,004				
1823373057	M5	Ø 5	8	4	25	8	25	0,005				
1823373058	M5	Ø 6	8	4	26	8	25	0,006				
1823373059	G 1/8	Ø 4	13	6	27,7	13	25	0,008				
1823373060	G 1/8	Ø 5	13	6	28	13	25	0,008				
1823373061	G 1/8	Ø 6	13	6	29,5	13	25	0,008				
1823373062	G 1/8	Ø 8	13	6	31	13	25	0,009				
1823373063	G 1/4	Ø 4	16	8	30,2	13	25	0,012				
1823373064	G 1/4	Ø 5	16	8	31	13	25	0,013				
1823373065	G 1/4	Ø 6	16	8	32	13	25	0,014				
1823373066	G 1/4	Ø 8	16	8	33,5	13	25	0,015				
1823373067	G 1/4	Ø 10	16	8	38	13	10	0,019				
1823391810	G 1/4	Ø 12	16	8	39	13	10	0,024				
1823373068	G 3/8	Ø 8	20	9	35,5	13	10	0,022				
1823373069	G 3/8	Ø 10	20	9	41	13	10	0,029				
1823373070	G 3/8	Ø 12	20	9	42	13	5	0,03				
1823373071	G 3/8	Ø 14	20	9	44	16	5	0,042				
1823373072	G 1/2	Ø 12	24	11	44	16	5	0,044				
1823373073	G 1/2	Ø 14	24	11	46	16	5	0,046				

Series QR2-S standard

▶ Push-in connector, long ▶ External thread ▶ M7 - G 1/4 ▶ Pin bushing ▶ Ø 4 - Ø 10 ▶ QR2-S-RAL



1100-221

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port D	L	H	Ø E	SW	Delivery quantity [Pieces]	Weight [kg]				
1823391887	M7	Ø 4	38	6	-	10	10	0,011				
1823391888	M7	Ø 6	42	6	-	10	10	0,011				
1823373074	G 1/8	Ø 4	39,7	6	13	13	25	0,013				
1823373075	G 1/8	Ø 6	43,5	6	13	13	25	0,015				
1823373076	G 1/8	Ø 8	47,5	6	13	13	10	0,02				
1823373077	G 1/4	Ø 6	46	8	16	13	10	0,02				
1823373078	G 1/4	Ø 8	49,7	8	16	13	10	0,023				
1823373079	G 1/4	Ø 10	55,5	8	16	13	5	0,028				

Pneumatic connection technologies ▶ Push-In fittings
Series QR2-S standard
▶ Elbow fitting, rotatable ▶ External thread ▶ M5 - G 1/2 ▶ Push-in fitting ▶ Ø 4 - Ø16 ▶ QR2-S-RVT


00119822

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port D	ØB	ØE	H	L	L1	SW	Delivery quantity [Pieces]	Weight [kg]		
1823391709	M5	Ø 4	9	8	4	14,5	19	9	10	0,015		
1823391889	M5	Ø 6	11	8	4	14,5	21	9	10	0,016		
1823391885	M7	Ø 4	9	10	6	16,5	18	9	10	0,017		
1823391886	M7	Ø 6	11	10	6	16,5	19,5	9	10	0,017		
1823391710	G 1/8	Ø 4	9	13	6	20	19	13	10	0,018		
1823391711	G 1/8	Ø 6	11	13	6	20	21	13	10	0,02		
1823391712	G 1/8	Ø 8	13	13	6	20	24	13	10	0,022		
R412007687	G 1/8	Ø 10	15	13	6	24	27	13	5	0,032		
1823391713	G 1/4	Ø 4	9	16	8	24	19	13	10	0,024		
1823391714	G 1/4	Ø 6	11	16	8	24	21	13	10	0,025		
1823391715	G 1/4	Ø 8	13	16	8	24	24	13	10	0,027		
1823391718	G 1/4	Ø 10	15	16	8	24	27	16	10	0,031		
1823391843	G 1/4	Ø 12	17	16	8	30,5	29	16	5	0,042		
1823391716	G 3/8	Ø 8	13	20	9	25,5	24	13	5	0,042		
1823391717	G 3/8	Ø 10	15	20	9	28	27	16	5	0,042		
1823391838	G 3/8	Ø 12	17	20	9	28,5	28	20	5	0,045		
1823391839	G 3/8	Ø 14	20	20	9	28,5	31	20	5	0,062		
R412010182	G 3/8	Ø16	23	20	9	33,5	33	20	1	0,072		
R412007589	G 1/2	Ø 10	15	25	11	30	27	16	5	0,046		
1823391840	G 1/2	Ø 12	17	25	11	33,5	28	20	5	0,065		
1823391841	G 1/2	Ø 14	20	25	11	33,5	31	20	5	0,07		
R412007956	G 1/2	Ø16	23	25	11	38	33	20	1	0,084		

Series QR2-S standard
▶ Elbow fitting long, rotatable ▶ External thread ▶ G 1/8 - G 1/4 ▶ Push-in fitting ▶ Ø 4 - Ø 10 ▶ QR2-S-RVL


00136682

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port D	ØB	ØE	H	L1	L2	SW	Delivery quantity [Pieces]	Weight [kg]		
R412010270	G 1/8	Ø 4	13	9	6	33	20	13	10	30,2		
R412010271	G 1/8	Ø 6	13	11	6	33	21,5	13	10	31,8		
R412010272	G 1/8	Ø 8	13	13	6	33	23,5	13	10	34		
R412010273	G 1/4	Ø 6	16	11	8	37,7	21,5	13	10	32,7		
R412010274	G 1/4	Ø 8	16	13	8	37,7	23,5	13	10	38,8		

Pneumatic connection technologies ▶ Push-In fittings

Series QR2-S standard

▶ Swivel banjo connection 1-fold ▶ External thread ▶ M5 - G 3/8 ▶ Push-in fitting▶ Ø 4 - Ø 12 ▶ QR2-S-RW1



00110644

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port G	Port D	L	L1	H	Ø B	Ø E	SW	Delivery quantity [Pieces]	Weight [kg]		
1823391549	M5	Ø 4	17,5	18,5	4,5	9	7	8	10	0,01		
1823391550	M5	Ø 5	17,5	19,5	4,5	10	7	8	10	0,016		
1823391905	M5	Ø 6	19	19	4,5	10,5	10	8	10	0,018		
1823391551	G 1/8	Ø 4	28	21	7,5	9	14	14	10	0,024		
1823391552	G 1/8	Ø 5	28	22,5	7,5	10	14	14	10	0,026		
1823391553	G 1/8	Ø 6	28	22,5	7,5	11	14	14	10	0,027		
1823391554	G 1/8	Ø 8	28	24,5	7,5	13	14	14	10	0,032		
1823391556	G 1/4	Ø 6	33	24	9	11	18	17	10	0,035		
1823391557	G 1/4	Ø 8	33	26	9	13	18	17	10	0,048		
1823391558	G 1/4	Ø 10	33	27	9	15	18	17	5	0,052		
1823391559	G 3/8	Ø 8	36	28	9	13	21	19	5	0,072		
1823391560	G 3/8	Ø 10	36	29	9	15	21	19	5	0,077		
1823391561	G 3/8	Ø 12	36	30	9	17	21	19	5	0,088		

Series QR2-S standard

▶ Swivel banjo connection 1-fold, with hexagon socket, rotatable ▶ External thread ▶ M5 - G 3/8 ▶ Push-in fitting▶ Ø 4 - Ø 12 ▶ QR2-S-RI1



00110652

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø B	Ø E	H	L	L1	SW	Delivery quantity [Pieces]	Weight [kg]		
1823391652	M5	Ø 4	9	8	4	17	18,5	2	10	0,01		
1823391653	M5	Ø 5	10	8	4	17	19,5	2	10	0,016		
1823391654	G 1/8	Ø 4	9	14	6	25	21	3	10	0,019		
1823391655	G 1/8	Ø 5	10	14	6	25	22,5	3	10	0,021		
1823391656	G 1/8	Ø 6	11	14	6	25	23	3	10	0,022		
1823391657	G 1/8	Ø 8	13	14	6	25	24,5	3	10	0,026		
1823391658	G 1/4	Ø 6	11	18	8	29,3	24	4	10	0,028		
1823391659	G 1/4	Ø 8	13	18	8	29,3	26	4	10	0,039		
1823391660	G 1/4	Ø 10	15	18	8	29,3	27	4	10	0,042		
1823391927	G 1/4	Ø 12	17	18	8	29,3	28	4	10	0,047		
1823391897	G 3/8	Ø 8	13	21	9	34	28	5	5	0,042		
1823391898	G 3/8	Ø 10	15	21	9	34	29	5	5	0,044		
1823391899	G 3/8	Ø 12	17	21	9	34	30	5	5	0,045		

Pneumatic connection technologies ▶ Push-In fittings
Series QR2-S standard

▶ Swivel banjo connection 2x, with hexagon socket, rotatable ▶ External thread ▶ G 1/8 - G 1/4 ▶ Push-in fitting, 2x
▶ Ø 4 - Ø 12 ▶ QR2-S-RI2



00112349

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø E	H	L	L1	L2	L3	SW 1	SW 2	Delivery quantity [Pieces]	Weight [kg]
1823391913	G 1/8	Ø 4	13	6	44	19,1	15	21	14	3	10	0,045
1823391914	G 1/8	Ø 6	13	6	44	19,1	15	23	14	3	10	0,047
1823391915	G 1/8	Ø 8	13	6	44	19,1	15	24,5	14	3	10	0,053
1823391916	G 1/4	Ø 6	17	8	50	22,5	17	24	17	4	10	0,077
1823391917	G 1/4	Ø 8	17	8	50	22,5	17	26	17	4	10	0,08
1823391918	G 1/4	Ø 10	17	8	50	22,5	17	27	17	4	10	0,082
1823391919	G 1/4	Ø 12	17	8	50	22,5	17	28	17	4	10	0,091

Series QR2-S standard

▶ Swivel banjo connection 3x, with hexagon socket, rotatable ▶ External thread ▶ G 1/8 - G 1/4 ▶ Push-in fitting, 3x
▶ Ø 4 - Ø 12 ▶ QR2-S-RI3



00112350

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø E	H	L	L1	L2	L3	SW1	SW2	Delivery quantity [Pieces]	Weight [kg]
1823391920	G 1/8	Ø 4	13	6	59	19,1	15	21	14	3	10	0,06
1823391921	G 1/8	Ø 6	13	6	59	19,1	15	23	14	3	10	0,065
1823391922	G 1/8	Ø 8	13	6	59	19,1	15	24,5	14	3	10	0,066
1823391923	G 1/4	Ø 6	17	8	67	22,5	17	24	17	4	10	0,075
1823391924	G 1/4	Ø 8	17	8	67	22,5	17	26	17	4	10	0,108
1823391925	G 1/4	Ø 10	17	8	67	22,5	17	27	17	4	10	0,11
1823391926	G 1/4	Ø 12	17	8	67	22,5	17	28	17	4	10	0,117

Pneumatic connection technologies ▶ Push-In fittings

Series QR2-S standard

▶ T - Banjo connection with hexagon socket, rotatable ▶ External thread ▶ M5 - G 3/8 ▶ Push-in fitting, 2x ▶ Ø 4 - Ø 12 ▶ QR2-S-RTI



00110653

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port D	L	L1	H	Ø B	Ø E	SW	Delivery quantity [Pieces]	Weight [kg]
1823391661	M5	Ø 4	17	18,5	4	9	8	2	10	0,017
1823391662	M5	Ø 5	17	19,5	4	10	8	2	10	0,021
1823391663	G 1/8	Ø 4	25	21	6	9	14	3	10	0,029
1823391664	G 1/8	Ø 5	25	22,5	6	10	14	3	10	0,031
1823391665	G 1/8	Ø 6	25	23	6	11	14	3	10	0,033
1823391666	G 1/8	Ø 8	25	24,5	6	13	14	3	10	0,035
1823391667	G 1/4	Ø 6	29,3	24	8	11	18	4	10	0,046
1823391668	G 1/4	Ø 8	29,3	26	8	13	18	4	10	0,048
1823391669	G 1/4	Ø 10	29,3	27	8	15	18	4	10	0,054
1823391900	G 3/8	Ø 8	34	28	9	13	21	5	2	0,056
1823391901	G 3/8	Ø 10	34	29	9	15	21	5	2	0,06
1823391902	G 3/8	Ø 12	34	29	9	17	21	5	2	0,08

Series QR2-S standard

▶ T-union, rotatable ▶ External thread ▶ M5 - G 1/2 ▶ Push-in fitting, 2x ▶ Ø 4 - Ø 14 ▶ QR2-S-RTT



00112352

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø B	Ø E	H	L	L1	SW	Delivery quantity [Pieces]	Weight [kg]
1823391812	M5	Ø 4	8	9	4	16,5	19	9	25	0,019
1823391813	G 1/8	Ø 4	12,8	9	6	18,5	17,5	13	25	0,022
1823391814	G 1/8	Ø 6	13	11	6	20	21	13	25	0,033
1823391815	G 1/8	Ø 8	13	13	6	20	23	13	25	0,034
1823391816	G 1/4	Ø 4	12,8	9	8	22,5	19	16	25	0,028
1823391817	G 1/4	Ø 6	16	11	8	24	21	13	25	0,035
1823391818	G 1/4	Ø 8	16	13	8	24	23	13	10	0,038
1823391819	G 1/4	Ø 10	15,8	15	8	24,5	25	16	10	0,043
1823391823	G 1/4	Ø 12	16	17	8	28,5	28	16	10	0,072
1823391820	G 3/8	Ø 8	20	13	9	25,5	24	18	10	0,045
1823391821	G 3/8	Ø 10	20	15	9	28	26	16	10	0,046
1823391822	G 3/8	Ø 12	20	17	9	26,5	27	18	5	0,057
1823391824	G 1/2	Ø 14	25	20	11	33,5	31	20	5	0,091

Pneumatic connection technologies ▶ Push-In fittings
Series QR2-S standard
▶ T - Banjo connection ▶ External thread ▶ M5 - G 3/8 ▶ Push-in fitting, 2x ▶ Ø 4 - Ø 12 ▶ QR2-S-RTS


00110646

 Ambient temperature min./max.
 Working pressure min./max.

 -20°C / +80°C
 -0,95 bar / 16 bar

Part No.	Port G	Port D	Ø B	Ø E	H	L	L1	SW	Delivery quantity [Pieces]	Weight [kg]		
1823391562	M5	Ø 4	9	8	4,5	17,5	18,5	8	10	0,02		
1823391563	M5	Ø 5	10	7	4,5	17,5	19,5	8	10	0,024		
1823391564	G 1/8	Ø 4	9	14	7,5	28	21	14	10	0,034		
1823391565	G 1/8	Ø 5	10	14	7,5	28	22,5	14	10	0,036		
1823391566	G 1/8	Ø 6	11	14	7,5	28	23	14	10	0,038		
1823391567	G 1/8	Ø 8	13	14	7,5	28	24,5	14	10	0,041		
1823391568	G 1/4	Ø 6	11	18	9	33	24	17	10	0,054		
1823391569	G 1/4	Ø 8	13	18	9	33	26	17	10	0,056		
1823391570	G 1/4	Ø 10	15	18	9	33	27	17	5	0,063		
1823391571	G 3/8	Ø 8	13	21	9,5	36	28	22	5	0,076		
1823391572	G 3/8	Ø 10	15	21	9,5	36	29	22	5	0,096		
1823391573	G 3/8	Ø 12	17	21	9,5	36	30	22	5	0,117		

Series QR2-S standard
▶ L-Connector, rotatable ▶ External thread ▶ M5 - G 1/2 ▶ Push-in fitting, 2x ▶ Ø 4 - Ø 14 ▶ QR2-S-RLT


00112351

 Ambient temperature min./max.
 Working pressure min./max.

 -20°C / +80°C
 -0,95 bar / 16 bar

Part No.	Port G	Port D	Ø B	Ø E	H	L	L1	SW	Delivery quantity [Pieces]	Weight [kg]		
1823391825	M5	Ø 4	8	9	4	20	19	9	25	0,015		
1823391826	G 1/8	Ø 4	12,8	9	5,8	18,5	17,5	13	25	0,023		
1823391827	G 1/8	Ø 6	12,8	11	5,8	18,5	21	13	25	0,023		
1823391828	G 1/8	Ø 8	12,8	13	5,8	20,5	23	13	25	0,029		
1823391829	G 1/4	Ø 4	15,8	9	8	22,5	19	16	25	0,028		
1823391830	G 1/4	Ø 6	15,8	11	8	22,5	21	13	25	0,031		
1823391831	G 1/4	Ø 8	15,8	13	8	22,5	24	13	10	0,037		
1823391832	G 1/4	Ø 10	15,8	15	8	24,5	27	16	10	0,044		
1823391836	G 1/4	Ø 12	15,8	17	8	24,5	27	16	10	0,054		
1823391833	G 3/8	Ø 8	20	13	9	25,5	24	13	10	0,045		
1823391834	G 3/8	Ø 10	20	15	9	24,5	25,5	16	10	0,047		
1823391835	G 3/8	Ø 12	20	17	9	26,5	27	18	5	0,058		
1823391837	G 1/2	Ø 14	25	20	11	30,5	31	21	5	0,092		

Pneumatic connection technologies ▶ Push-In fittings

Series QR2-S standard

▶ Bulkhead plug connector, metal ▶ Push-in fitting ▶ Ø 4 - Ø16 ▶ Push-in fitting ▶ Ø 4 - Ø16 ▶ QR2-S-RSM



00110650

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port D	M	l 1)	L	SW	Delivery quantity [Pieces]	Weight [kg]				
1823391636	Ø 4	Ø 4	M10x1	8	32	13	10	0,017				
1823391637	Ø 5	Ø 5	M11x1	8	33	14	10	0,02				
1823391638	Ø 6	Ø 6	M14x1	8	33,5	17	10	0,022				
1823391639	Ø 8	Ø 8	M16x1	10	37	18	10	0,029				
1823391640	Ø 10	Ø 10	M17x1	12	39,5	20	10	0,058				
1823391641	Ø 12	Ø 12	M20x1	17	42	24	5	0,063				
1823391642	Ø 14	Ø 14	M22x1	18	45	25	5	0,092				
R412010241	Ø16	Ø16	M28x1,5	21	50	36	2	0,174				

1) Max.

Series QR2-S standard

▶ Straight plug connector ▶ Push-in fitting, 2x ▶ Ø 4 - Ø16 ▶ M28x1,5 ▶ QR2-S-RSK



00119557

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port R	ØB	ØC	ØE	L	Delivery quantity [Pieces]	Weight [kg]				
1823386077	Ø 4	-	7	3	9	30	10	0,012				
1823386078	Ø 5	-	8	4	9,5	32	10	0,014				
1823386079	Ø 6	-	10	5	11	31,5	10	0,016				
1823386080	Ø 8	-	12	7	13	36	10	0,023				
1823386081	Ø 10	-	13	9	15	37	10	0,043				
1823386082	Ø 12	-	16	11	17	40,5	5	0,052				
1823386083	Ø 14	-	18	12	20	45	5	0,075				
R412010539	Ø16	M28x1,5	-	14	23	50	1	0,114				

Pneumatic connection technologies ▶ Push-In fittings
Series QR2-S standard
▶ Angled plug connector ▶ Push-in fitting ▶ Ø 4 - Ø16 ▶ Push-in fitting ▶ Ø 4 - Ø16 ▶ QR2-S-RVK


00110599

 Ambient temperature min./max.
 Working pressure min./max.

 -20°C / +80°C
 -0,95 bar / 16 bar

Part No.	Port G	Port D	ØB	L	Delivery quantity [Pieces]	Weight [kg]						
1823380012	Ø 4	Ø 4	9	17,5	10	0,01						
1823380013	Ø 5	Ø 5	9,5	19	10	0,011						
1823380014	Ø 6	Ø 6	11	19,5	10	0,014						
1823380015	Ø 8	Ø 8	13	23	10	0,019						
1823380016	Ø 10	Ø 10	15	25	10	0,026						
1823380017	Ø 12	Ø 12	17	27	5	0,037						
1823380018	Ø 14	Ø 14	19	30	5	0,056						
R412010540	Ø16	Ø16	23	33	1	0,064						

Series QR2-S standard
▶ T - Plug connector ▶ Push-in fitting ▶ Ø 4 - Ø16 ▶ Push-in fitting, 2x ▶ Ø 4 - Ø16 ▶ QR2-S-RTK


00110604

 Ambient temperature min./max.
 Working pressure min./max.

 -20°C / +80°C
 -0,95 bar / 16 bar

Part No.	Port G	Port D	ØB	L	Delivery quantity [Pieces]	Weight [kg]						
1823381043	Ø 4	Ø 4	9	17,5	10	0,015						
1823381044	Ø 5	Ø 5	10	19	10	0,016						
1823381045	Ø 6	Ø 6	11	19,5	10	0,019						
1823381046	Ø 8	Ø 8	13	23	10	0,027						
1823381047	Ø 10	Ø 10	15	25	10	0,038						
1823381048	Ø 12	Ø 12	17	27	5	0,051						
1823381049	Ø 14	Ø 14	20	30	5	0,076						
R412010541	Ø16	Ø16	23	36	1	0,115						

Pneumatic connection technologies ▶ Push-In fittings

Series QR2-S standard

▶ Y - Plug connector ▶ Push-in fitting, 1x ▶ Ø 4 - Ø 10 ▶ Push-in fitting, 2x ▶ Ø 4 - Ø 10 ▶ QR2-S-RYK



21791

Ambient temperature min./max.
Working pressure min./max.

-20°C / +70°C
-0,95 bar / 15 bar

Part No.	Port G	Port D	A	ØD2	L1	L2	L3	Delivery quantity [Pieces]	Weight [kg]			
R412010804	Ø 4	Ø 4	12,5	9	29,5	9,5	18,5	5	13,5			
R412010802	Ø 6	Ø 6	15,5	11,5	36	12,5	24,5	5	32			
R412010117	Ø 8	Ø 8	15,5	13,5	37,5	14,5	28,5	5	43,5			
R412010535	Ø 10	Ø 10	17,5	15,5	44	16,5	32,5	5	61,5			

Series QR2-S standard

▶ Straight Push-in fitting, increasing ▶ pin bushing ▶ Ø 4 - Ø 6 ▶ push-in fitting ▶ Ø 6 - Ø 8 ▶ QR2-S-REE



00110648

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø B	L	Delivery quantity [Pieces]	Weight [kg]						
1823391628	Ø 4	Ø 6	10,5	33,5	10	0,008						
1823391890	Ø 6	Ø 8	13	39	10	0,01						

Pneumatic connection technologies ▶ Push-In fittings
Series QR2-S standard
▶ Straight Push-in fitting, reducing ▶ Push-in fitting ▶ Ø 4 - Ø 14 ▶ Pin bushing ▶ Ø 5 - Ø 16 ▶ QR2-S-RED


00110648

 Ambient temperature min./max.
 Working pressure min./max.

 -20°C / +80°C
 -0,95 bar / 16 bar

Part No.	Port G	Port D	Ø B	L	Delivery quantity [Pieces]	Weight [kg]						
1823391614	Ø 4	Ø 5	9	32,5	10	0,007						
1823391615	Ø 4	Ø 6	9	28,5	10	0,008						
1823391616	Ø 5	Ø 6	9,5	35,5	10	0,009						
1823391617	Ø 4	Ø 8	9	31	10	0,011						
1823391618	Ø 5	Ø 8	9,5	32,5	10	0,011						
1823391619	Ø 6	Ø 8	10,5	33,5	10	0,012						
1823391620	Ø 6	Ø 10	10,5	36,5	10	0,016						
1823391621	Ø 8	Ø 10	13	38	10	0,018						
1823391622	Ø 4	Ø 12	13	39,5	10	0,024						
1823391623	Ø 6	Ø 12	13	39,5	10	0,022						
1823391624	Ø 8	Ø 12	13	38,5	10	0,02						
1823391903	Ø 10	Ø 12	15	41	5	0,019						
1823391625	Ø 4	Ø 14	15	43	5	0,024						
1823391626	Ø 6	Ø 14	15	43	5	0,023						
1823391627	Ø 8	Ø 14	15	43	5	0,026						
1823391842	Ø 10	Ø 14	15	43	10	0,03						
1823391811	Ø 12	Ø 14	17	43	10	0,041						
R412010190	Ø 14	Ø 16	20	47	5	0,039						

Series QR2-S standard
▶ Angled plug-in connector ▶ Pin bushing ▶ Ø 4 - Ø 14 ▶ Push-in fitting ▶ Ø 4 - Ø 14 ▶ QR2-S-RVA


00124066

 Ambient temperature min./max.
 Working pressure min./max.

 -20°C / +80°C
 -0,95 bar / 16 bar

Part No.	Port G	Port D	Ø D	Ø B	L	L1	Delivery quantity [Pieces]	Weight [kg]				
R412004851	Ø 4	Ø 4	4	9	18	24,5	10	0,007				
R412004852	Ø 6	Ø 6	6	11	20	32	10	0,012				
1823391942	Ø 8	Ø 8	8	13	23	37,5	10	0,016				
1823391943	Ø 10	Ø 10	10	15	25	43,1	10	0,025				
1823391944	Ø 12	Ø 12	12	17	27	49,5	10	0,034				
R412010739	Ø 14	Ø 14	14	20	32	54	10	0,042				

Pneumatic connection technologies ▶ Push-In fittings

Series QR2-S standard

▶ Blanking plug ▶ Pin bushing ▶ Ø 4 - Ø 14 ▶ QR2-S-RBS



00110647

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port G	Ø B	L	Delivery quantity [Pieces]	Weight [kg]						
1823391607	Ø 4	5	25,5	25	0,002						
1823391608	Ø 5	6	26,5	25	0,006						
1823391609	Ø 6	7	27,5	25	0,008						
1823391610	Ø 8	9	30,5	25	0,015						
1823391611	Ø 10	11	35	25	0,018						
1823391612	Ø 12	13	37	25	0,023						
1823391613	Ø 14	15	40	25	0,037						

Series QR2-S standard

▶ Connection pieces ▶ Pin bushing ▶ Ø 5 - Ø 14 ▶ QR2-S-RDS



00110649

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port D	Ø C	L	L2	Delivery quantity [Pieces]	Weight [kg]						
1823391630	Ø 5	3	33	4,6	25	0,003						
1823391633	Ø 10	8	45,5	6,5	25	0,01						
1823391634	Ø 12	10	48	6,6	10	0,014						
1823391635	Ø 14	12	53	7,7	10	0,018						

Series QR2-S standard

▶ Union with collar ▶ Pin bushing ▶ Ø 4 - Ø16 ▶ QR2-S-RDS



00135552

Ambient temperature min./max.
Working pressure min./max.

-20°C / +80°C
-0,95 bar / 16 bar

Part No.	Port D	Ø C	L	L2	L3	ØD1	Delivery quantity [Pieces]	Weight [kg]				
1823391629	Ø 4	2	35	5,4	0,6	17	25	0,003				
1823391631	Ø 6	4	36,6	5,8	0,6	9	25	0,005				
1823391632	Ø 8	6	40	6,9	1	7	25	0,007				
R412010191	Ø16	14	58	8,7	2	5	10	0,024				

Pneumatic connection technologies ▶ Push-In fittings

Series QR2-S standard

▶ Banjo bolt, 1-fold ▶ External thread ▶ M5 - G 3/8 ▶ QR2-S-RH1



00110630

Ambient temperature min./max.
Working pressure min./max.

-20°C / +70°C
-0,95 bar / 16 bar

Part No.	Port G	H	L	M	SW	Delivery quantity [Pieces]	Weight [kg]				
1823391574	M5	4,5	17,5	3	8	10	0,003				
1823391575	G 1/8	9	28	4	14	10	0,004				
1823391576	G 1/4	11	33	5	17	10	0,027				
1823391577	G 3/8	12	36	4,5	19	10	0,045				

Series QR2-S standard

▶ Banjo bolt, 2x ▶ External thread ▶ G 1/8 - G 3/8 ▶ QR2-S-RH2



00110615

Ambient temperature min./max.
Working pressure min./max.

-20°C / +70°C
-0,95 bar / 16 bar

Part No.	Port G	H	L	M	SW	Delivery quantity [Pieces]	Weight [kg]				
1823391579	G 1/8	6	44,5	4	14	10	0,02				
1823391580	G 1/4	6,5	51,5	5	17	10	0,035				
1823391581	G 3/8	7,5	58,1	4,5	19	10	0,063				

Series QR2-S standard

▶ Banjo bolt, 3x ▶ External thread ▶ G 1/4 - G 3/8 ▶ 3x ▶ QR2-S-RH3



00110624

Ambient temperature min./max.
Working pressure min./max.

-10°C / +70°C
-0,95 bar / 15 bar

Part No.	Port G	H	L1	SW	Delivery quantity [Pieces]						
1823462066	G 1/4	6,5	64	17	2						
1823391052	G 3/8	7,5	72,5	19	2						

Pneumatic connection technologies ▶ Push-In fittings

Series QR2-S standard

▶ Banjo union, 1-fold ▶ M5 - G 3/8 ▶ Push-in fitting ▶ Ø 4 - Ø 12 ▶ QR2-S-RV1



00112353

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø B	Ø E	H	L1	Delivery quantity [Pieces]	Weight [kg]				
1823391583	M5	Ø 4	9	8,2	9	18,5	10	0,007				
1823391584	M5	Ø 5	10	7	9	19,5	10	0,009				
1823391585	G 1/8	Ø 4	9	14	15	21	10	0,01				
1823391586	G 1/8	Ø 5	10	14	15	22,5	10	0,012				
1823391587	G 1/8	Ø 6	11	14	15	23	10	0,013				
1823391588	G 1/8	Ø 8	13	14	15	24,5	10	0,018				
1823391589	G 1/4	Ø 6	11	18	17	24	10	0,018				
1823391590	G 1/4	Ø 8	13	18	17	26	10	0,021				
1823391591	G 1/4	Ø 10	15	18	17	27	5	0,025				
1823391592	G 3/8	Ø 8	13	21	20	28	5	0,027				
1823391593	G 3/8	Ø 10	15	21	20	29	5	0,032				
1823391594	G 3/8	Ø 12	17	21	20	30	5	0,043				

Series QR2-S standard

▶ Banjo union, 2x ▶ M5 - G 3/8 ▶ Push-in fitting, 2x ▶ Ø 4 - Ø 12 ▶ QR2-S-RT1



00112355

Ambient temperature min./max.

-20°C / +80°C

Working pressure min./max.

-0,95 bar / 16 bar

Part No.	Port G	Port D	Ø B	Ø E	H	L	Delivery quantity [Pieces]	Weight [kg]				
1823391595	M5	Ø 4	8	9	9	18,5	10	0,013				
1823391596	M5	Ø 5	8	10	9	19,5	10	0,017				
1823391597	G 1/8	Ø 4	14	9	15	21	10	0,02				
1823391598	G 1/8	Ø 5	14	10	15	22,5	10	0,022				
1823391599	G 1/8	Ø 6	14	11	15	23	10	0,024				
1823391600	G 1/8	Ø 8	14	13	15	24,5	10	0,027				
1823391601	G 1/4	Ø 6	18	11	17	24	10	0,027				
1823391602	G 1/4	Ø 8	18	13	17	26	10	0,029				
1823391603	G 1/4	Ø 10	18	15	17	27	5	0,036				
1823391604	G 3/8	Ø 8	21	13	20	28	5	0,031				
1823391605	G 3/8	Ø 10	22	15	20	29	5	0,051				
1823391606	G 3/8	Ø 12	22	17	20	30	5	0,072				

Accessories ▶ Plastic tubing

Compressed air tubing, Series TU1-S

▶ Ø 3 - 16 mm ▶ working pressure max. at 20 °C: 10 bar ▶ Polyester polyurethane



00127683

Ambient temperature min./max.
working pressure max. at 20 °C

-30°C / +80°C
10 bar

Diameter external	Wall thickness	Bending radius min. at 20 °C	Weight per meter	Color	Length	Part No.
[mm]	[mm]	[mm]	[kg]		[m]	
3	0.6	8	0.005	Natural	50	1820712069
				Black		1820712068
				Red		1820712066
				Blue		1820712067
4	0.75	12	0.009	Red	25	1820712020
			0.009	Green	25	1820712078
			-	Natural	50	R412014554
			0.009	Black	50	R412009984
			0.009	Blue	50	R412009985
			0.009	Natural	100	1820712007
			0.009	Black	100	1820712018
			0.009	Blue	100	1820712036
			0.009	Yellow	100	R412004860
5	0.95	13	0.015	Natural	25	1820712001
				Black		1820712011
				Blue		1820712031
6	1.05	18	0.02	Red	25	1820712022
			-	Natural	50	R412014556
			-	Green	50	R412014555
			0.02	Black	50	R412009987
			0.02	Blue	50	R412009988
			0.02	Natural	100	1820712006
			0.02	Black	100	1820712019
			0.02	Blue	100	1820712037
			0.02	Yellow	100	R412004861
8	1.15	30	0.03	Red	25	1820712023
			-	Natural	50	R412014557
			0.03	Black	50	R412009989
			0.03	Blue	50	R412009990
			0.03	Natural	100	1820712008
			0.03	Black	100	1820712016
			0.03	Red	100	1820712028
			0.03	Blue	100	1820712038
			0.03	Yellow	100	R412004862
10	1.25	45	-	Black	25	1820712015
			-	Natural	50	R412014558
			0.042	Blue	50	R412009991
			-	Natural	100	1820712009
			-	Black	100	1820712081
			-	Red	100	1820712029
			-	Blue	100	1820712039

Accessories ▶ Plastic tubing
Compressed air tubing, Series TU1-S

▶ Ø 3 - 16 mm ▶ working pressure max. at 20 °C: 10 bar ▶ Polyester polyurethane

Diameter external	Wall thickness	Bending radius min. at 20 °C	Weight per meter	Color	Length	Part No.
[mm]	[mm]	[mm]	[kg]		[m]	
12	1.5	55	0.06	Black	25	1820712014
				Natural	50	R412014559
				Blue	50	R412009992
				Natural	100	1820712082
				Black	100	1820712017
				Red	100	1820712083
				Blue	100	1820712040
14	2	55	0.092	Natural	25	R412004790
				Black	25	R412004778
				Blue	25	R412004782
				Blue	100	R412004783
16	2.5	65	0.129	Natural	25	R412004792
				Black	25	R412004780
				Blue	25	R412004784
				Black	100	R412004781
				Red	100	R412004789
				Blue	100	R412004785

Compressed air tubing, Series TU1-X

▶ Ø 4 - 14 mm ▶ working pressure max. at 20 °C: 16 bar ▶ Polyether polyurethane ▶ Flamex

 Ambient temperature min./max.
working pressure max. at 20 °C

 -30 °C / +100 °C
16 bar


00127733

Diameter external	Wall thickness	Bending radius min. at 20 °C	Weight per meter	Color	Length	Note	Part No.
[mm]	[mm]	[mm]	[kg]		[m]		
4	1	7	0.012	Black	25	1)	1820712096
						2)	1820712084
8	2	15	0.048	Black	25	1)	1820712094
						2)	1820712085
10	2	20	0.064	Black	25	1)	1820712095
						2)	1820712086
12	2	28	0.08	Black	25	1)	1820712097
						2)	1820712087
14	2	45	0.096	Black	25	1)	1820712098
						2)	1820712088

 1) Signature: Blue
2) Signature: White

Accessories ▶ Plastic tubing
Compressed air tubing, Series TU1-F

- ▶ Ø 4 - 16 mm ▶ working pressure max. at 20 °C: 10 bar ▶ Polyether polyurethane
 ▶ Suitable for use in food processing



Ambient temperature min./max.
 working pressure max. at 20 °C

-30°C / +60°C
 10 bar

00127734

Diameter external	Wall thickness	Bending radius min. at 20 °C	Weight per meter	Color	Length	Part No.
[mm]	[mm]	[mm]	[kg]		[m]	
4	0.75	12	0.009	Black translucent	25	R412009963
				Translucent blue	25	R412004796
				Transparent	25	R412004797
				Silver gray	100	R412007413
6	1.05	15	0.02	Black translucent	25	1820712043
				Translucent blue	25	1820712044
				Transparent	25	1820712042
				Silver gray	25	R412007414
				Translucent red	25	R412009901
				Silver gray	100	R412007415
8	1.25	25	0.031	Translucent blue	100	R412009907
				Black translucent	25	1820712046
				Translucent blue	25	1820712047
				Transparent	25	1820712045
				Translucent red	25	R412004994
				Silver gray	25	R412007416
10	1.5	40	0.046	Translucent blue	100	R412009993
				Silver gray	100	R412007417
				Black translucent	25	R412009964
				Silver gray	25	R412007418
				Translucent blue	25	R412004798
				Transparent	25	R412004799
12	2	35	0.073	Translucent red	100	R412014560
				Silver gray	100	R412007419
				Translucent blue	100	R412009994
				Translucent blue	100	R412009965
				Transparent	25	R412009967
				Black translucent	100	R412009948
14	2	50	0.088	Translucent red	100	R412009949
				Silver gray	100	R412007421
				Translucent blue	100	R412009995
				Transparent	25	R412009968
16	2.5	55	0.123	Translucent red	25	R412009911
				Silver gray	25	R412007424
				Translucent blue	25	R412009904
				Translucent blue		R412014480

Accessories ▶ Plastic tubing

Compressed air tubing, Series TU1-A

▶ Ø 3 - 12 mm ▶ working pressure max. at 20 °C: 10 bar ▶ Polyether polyurethane ▶ antistatic

Ambient temperature min./max.
working pressure max. at 20 °C

-30 °C / +60 °C
10 bar



00127685

Diameter external	Wall thickness	Bending radius min. at 20 °C	Weight per meter	Color	Length	Part No.
[mm]	[mm]	[mm]	[kg]		[m]	
3	0.55	9	-	Black	50	R412007792
4	0.75	9	0.009	Black	50	1820712089
6	1.05	15	0.02	Black	50	1820712091
8	1.15	28	0.03	Black	50	1820712092
10	1.25	35	0.042	Black	50	1820712093
12	1.5	50	-	Black	50	R412007705

Compressed air tubing, Series TU1-E

▶ Ø 4 - 12 mm ▶ working pressure max. at 20 °C: 8 bar ▶ Polyester polyurethane

Ambient temperature min./max.
working pressure max. at 20 °C

-30 °C / +60 °C
8 bar



00127734

Diameter external	Wall thickness	Bending radius min. at 20 °C	Weight per meter	Color	Length	Part No.
[mm]	[mm]	[mm]	[kg]		[m]	
4	0.75	13	0.009	Natural	500	R412007823
				Black		R412007824
				Blue		R412007825
6	1	20	0.02	Natural	500	R412007826
				Black		R412007827
				Blue		R412007828
8	1.15	33	0.03	Natural	500	R412007829
				Black		R412007830
				Blue		R412007831
10	1.25	48	0.042	Blue	400	R412007834
12	1.5	55	0.06	Blue	300	R412007837

Accessories ▶ Plastic tubing

Compressed air tubing, Series TU1

▶ Ø 4 - 16 mm ▶ working pressure max. at 20 °C: 10 - 26 bar ▶ Polyamide



Ambient temperature min./max.
working pressure max. at 20 °C

-40 °C / +80 °C
See table below

00127734

Diameter external	Wall thickness	working pressure max. at 20 °C	Bending radius min. at 20 °C	Weight per meter	Color	Length	Part No.
[mm]	[mm]	[bar]	[mm]	[kg]		[m]	
4	1	26	20	0.006	Natural	25	1820712100
	1	26			Black	25	1820712110
	0.5	15			Silver gray	25	R412009980
	0.5	15			Blue	25	R412009913
	0.5	15			Black	50	R412009931
	0.5	15			Natural	50	R412009937
	0.5	15			Blue	100	R412009914
	0.5	15			Silver gray	100	R412009943
6	1	24	30	0.011	Natural	25	1820712101
	1	24			Black	25	1820712111
	1	24			Red	25	R412007515
	1	24			Green	25	R412007516
	0.65	13			Blue	25	R412009915
	0.65	13			Silver gray	25	R412009998
	0.65	13			Blue	50	R412009916
	0.65	13			Black	50	R412009932
	0.65	13			Natural	50	R412009938
	0.65	13			Blue	100	R412009917
	0.65	13			Silver gray	100	R412009944
	1	24			Green	100	R412007636
	1	24			Natural	100	R412009905
	1	24			Black	100	R412009906
8	0.8	12	40	0.019	Blue	25	R412009918
	1	22			Natural	25	1820712102
	1	22			Black	25	1820712112
	1	22			Blue	25	R412007590
	0.8	12			Silver gray	25	R412009981
	0.8	12			Blue	50	R412009919
	0.8	12			Black	50	R412009933
	0.8	12			Natural	50	R412009939
	0.8	12			Black	100	R412014553
	0.8	12			Red	100	R412014552
	0.8	12			Blue	100	R412009920
	0.8	12			Silver gray	100	R412009945

Accessories ▶ Plastic tubing
Compressed air tubing, Series TU1

▶ Ø 4 - 16 mm ▶ working pressure max. at 20 °C: 10 - 26 bar ▶ Polyamide

Diameter external	Wall thickness	working pressure max. at 20 °C	Bending radius min. at 20 °C	Weight per meter	Color	Length	Part No.
[mm]	[mm]	[bar]	[mm]	[kg]		[m]	
10	1	13.5	50	0.028	Blue	25	R412009921
					Silver gray	25	R412009982
					Natural	25	1820712105
					Black	25	1820712115
					Black	50	R412009934
					Natural	50	R412009940
					Blue	50	R412009922
					Blue	100	R412009923
					Silver gray	100	R412009946
					Green	100	R412007632
					Black	100	R412007633
					12	1.1	11
1.1	11	Silver gray	25	R412009983			
1.5	18	Natural	25	1820712103			
1.5	18	Black	25	1820712113			
1.1	11	Black	50	R412009935			
1.1	11	Natural	50	R412009941			
1.1	11	Blue	50	R412009925			
1.1	11	Blue	100	R412009926			
1.1	11	Silver gray	100	R412009947			
14	1.25	11	90	0.052		Blue	25
	1.5	15			Natural	25	1820712104
	1.5	15			Black	25	1820712114
	1.25	11			Silver gray	25	R412009999
	1.25	11			Black	50	R412009936
	1.25	11			Blue	50	R412009928
	1.25	11			Natural	50	R412009942
16	1.35	10	100	0.065	Blue	25	R412009929
					Silver gray	25	R412014468
					Blue	50	R412009930

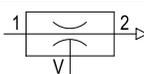
Ejector, Series EBS

▶ push-in fitting ▶ pneumatic control, inline form



00124472

Type	Ejector
Ambient temperature min./max.	+0°C / +60°C
Medium temperature min./max.	+0°C / +60°C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³

	Type	Nozzle Ø	Com-pressed air connection	Vacuum connection	Max. vacuum level at p.opt	Max. suction capacity	Part No.
		[mm]			[%]	[l/min]	
	EBS-PI-05-NN	0.5	Ø 4	Ø 4	83	8	R412007447
	EBS-PI-07-NN	0.7			85	15.9	R412007448

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Weight
	[l/min]	[dBA]	[dBA]	[kg]
R412007447	13	52	60	0.005
R412007448	25	63	63	

Nozzle material: Aluminum

Accessories ▶ Vacuum generators

Ejector, Series EBS

▶ push-in fitting ▶ pneumatic control, T-design ▶ with silencer



00124478

Type	Ejector
Ambient temperature min./max.	+0°C / +60°C
Medium temperature min./max.	+0°C / +60°C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³

	Type	Nozzle Ø	Com-pressed air connection	Vacuum connection	Max. vacuum level at p.opt	Max. suction capacity	Part No.
		[mm]			[%]	[l/min]	
	EBS-PT-05-NN	0.5	Ø 4	Ø 4	84	7	R412007449
	EBS-PT-07-NN	0.7	Ø 4	Ø 4	85	16	R412007450
	EBS-PT-10-NN	1	Ø 6	Ø 8	85	38	R412007451
	EBS-PT-15-NN	1.5	Ø 6	Ø 8	85	70	R412007452
	EBS-PT-20-NN	2	Ø 8	Ø 10	86	123	R412007453
	EBS-PT-25-NN	2.5	Ø 8	Ø 10	82	215	R412007454

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Weight
	[l/min]	[dBA]	[dBA]	[kg]
R412007449	14	53	58	0.007
R412007450	25	59	65	0.007
R412007451	48	59	65	0.02
R412007452	118	66	72	0.02
R412007453	208	68	77	0.05
R412007454	311	75	78	0.05

Nozzle material: Aluminum

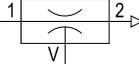
Ejector, Series EBS

▶ Thread connection ▶ pneumatic control, T-design ▶ with silencer



00125666

Type	Ejector
Ambient temperature min./max.	+0 °C / +60 °C
Medium temperature min./max.	+0 °C / +60 °C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³

	Type	Nozzle Ø	Com-pressed air connection	Vacuum connection	Max. vacuum level at p.opt	Max. suction capacity	Part No.
		[mm]			[%]	[l/min]	
	EBS-PT-05-NN	0.5	M5	M5	84	7	R412007473
	EBS-PT-07-NN	0.7	M5	M5	85	16	R412007474
	EBS-PT-10-NN	1	G 1/8	G 1/8	85	38	R412007475
	EBS-PT-15-NN	1.5	G 1/8	G 1/8	85	70	R412007476
	EBS-PT-20-NN	2	G 1/4	G 3/8	86	123	R412007477
	EBS-PT-25-NN	2.5	G 1/4	G 3/8	82	215	R412007478

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Weight
	[l/min]	[dBA]	[dBA]	[kg]
R412007473	14	53	58	0.008
R412007474	25	59	65	0.008
R412007475	48	59	65	0.022
R412007476	118	66	72	0.022
R412007477	208	68	77	0.048
R412007478	311	75	78	0.048

Nozzle material: Aluminum

Accessories ▶ Vacuum generators

Ejector, Series EBS

▶ push-in fitting ▶ electrical control, T-design ▶ with silencer



00125711

Type	Ejector
Ambient temperature min./max.	+0 °C / +50 °C
Medium temperature min./max.	+0 °C / +50 °C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Protection class:2001, with electrical connector	IP40
Display	LED
DC operating voltage	24 V
Status display	LED
Power consumption Solenoid valve	1.3 W

Type	Nozzle Ø	Compressed air connection	Vacuum connection	Voltage tolerance	Max. vacuum level at p.opt	Max. suction capacity	Part No.
	[mm]			DC	[%]	[l/min]	
EBS-ET-05-NC	0.5				84	7.5	R412007764
EBS-ET-07-NC	0.7	Ø 4	Ø 4	- 5% / +10%	85	16.8	R412007765

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Weight
	[l/min]	[dBA]	[dBA]	[kg]
R412007764	14	53	58	0.027
R412007765	24	59	65	

Nozzle material: Aluminum
 NC = ejector line closed without current

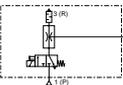
Ejector, Series EBS

▶ Thread connection ▶ electrical control, T-design ▶ with silencer



00125712

Type	Ejector
Ambient temperature min./max.	+0 °C / +50 °C
Medium temperature min./max.	+0 °C / +50 °C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Protection class:2001, with electrical connector	IP40
Display	LED
DC operating voltage	24 V
Status display	LED
Power consumption Solenoid valve	1.3 W

Type	Nozzle Ø	Compressed air connection	Vacuum connection	Voltage tolerance	Max. vacuum level at p.opt	Max. suction capacity	Part No.
	[mm]			DC	[%]	[l/min]	
 EBS-ET-05-NC	0.5	M5	M5	- 5% / +10%	84	7.5	R412007768
EBS-ET-07-NC	0.7	M5	M5	- 5% / +10%	85	16.8	R412007769

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Weight
	[l/min]	[dBA]	[dBA]	[kg]
R412007768	14	53	58	0.027
R412007769	24	59	65	

Nozzle material: Aluminum
 NC = ejector line closed without current

Accessories ▶ Vacuum generators

Ejector, Series EBS

▶ push-in fitting ▶ electrical control, T-design ▶ with release valve ▶ with silencer



00125705

Type	Ejector
Ambient temperature min./max.	+0 °C / +50 °C
Medium temperature min./max.	+0 °C / +50 °C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Protection class:2001, with electrical connector	IP40
Display	LED
DC operating voltage	24 V
Status display	LED
Power consumption Solenoid valve	1.3 W

	Type	Nozzle Ø	Compressed air connection	Vacuum connection	Voltage tolerance	Max. vacuum level at p.opt	Max. suction capacity	Part No.
		[mm]			DC	[%]	[l/min]	
	EBS-ET-05-NC	0.5				84	7.5	R412007461
	EBS-ET-07-NC	0.7	Ø 4	Ø 4	- 5% / +10%	85	16.8	R412007462
	EBS-ET-10-NO	1	Ø 6	Ø 8	- 5% / +10%	86	35	R412007463
	EBS-ET-15-NO	1.5	Ø 6	Ø 8	- 5% / +10%	84	71	R412007464
	EBS-ET-20-NO	2	Ø 8	Ø 10	- 5% / +10%	86	123	R412007465
	EBS-ET-25-NO	2.5	Ø 8	Ø 10	- 5% / +10%	84	223	R412007466

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Weight
	[l/min]	[dBA]	[dBA]	[kg]
R412007461	14	53	58	
R412007462	24	59	65	0.035
R412007463	48	59	65	0.065
R412007464	118	71	71	
R412007465	208	68	77	0.146
R412007466	320	70	78	

Nozzle material: Aluminum
 NC = ejector line closed without current
 NO = ejector suction line open without current

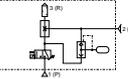
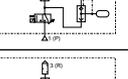
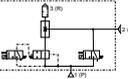
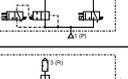
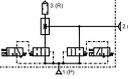
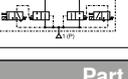
Ejector, Series EBS

▶ Thread connection ▶ electrical control, T-design ▶ with release valve ▶ with silencer



00125706

Type	Ejector
Ambient temperature min./max.	+0 °C / +50 °C
Medium temperature min./max.	+0 °C / +50 °C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Protection class:2001, with electrical connector	IP40
Display	LED
DC operating voltage	24 V
Status display	LED
Power consumption Solenoid valve	1.3 W

	Type	Nozzle Ø	Com-pressed air con-nection	Vacuum con-nection	Voltage tolerance	Max. vacuum level at p.opt	Max. suction capacity	Part No.
		[mm]			DC	[%]	[l/min]	
	EBS-ET-05-NC	0.5	M5	M5	- 5% / +10%	84	7.5	R412007485
	EBS-ET-07-NC	0.7				85	16.8	R412007486
	EBS-ET-10-NO	1	G 1/8	G 1/8	- 5% / +10%	86	35	R412007487
	EBS-ET-15-NO	1.5				84	71	R412007488
	EBS-ET-20-NO	2	G 1/4	G 3/8	- 5% / +10%	86	123	R412007489
	EBS-ET-25-NO	2.5				84	223	R412007490

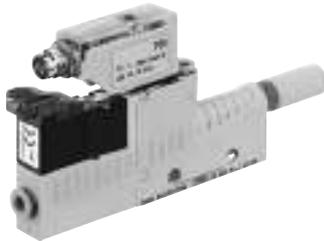
Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Weight
	[l/min]	[dBA]	[dBA]	[kg]
R412007485	14	53	58	0.035
R412007486	24	59	65	
R412007487	48	59	65	0.07
R412007488	118	71	71	
R412007489	208	68	77	0.144
R412007490	320	70	78	

Nozzle material: Aluminum
 NC = ejector line closed without current
 NO = ejector suction line open without current

Accessories ▶ Vacuum generators

Ejector, Series EBS

▶ push-in fitting ▶ electrical control, T-design ▶ with silencer ▶ vacuum switch: electronic, adjustable



00135362

Type	Ejector
Ambient temperature min./max.	+0 °C / +50 °C
Medium temperature min./max.	+0 °C / +50 °C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Protection class	IP40
Duty cycle according to DIN VDE 0580 standard	100 %
Hysteresis	2% of the final value, fixed
Precision (% of full scale value)	± 3 %
Repeatability (% of full scale value)	± 1 %
DC operating voltage	24 V
Voltage tolerance DC	- 5% / +10%
Power consumption Solenoid valve	1.3 W
Switching point	adjustable 0-100%

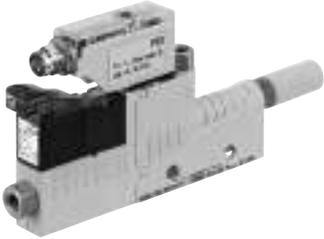
	Type	Nozzle Ø	Com-pressed air connection	Vacuum connection	Max. vacuum level at p.opt	Max. suction capacity	Part No.
		[mm]			[%]	[l/min]	
	EBS-ET-05-NC	0.5			84	7.5	R412010166
	EBS-ET-07-NC	0.7	Ø 4	Ø 4	85	16.8	R412010167

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Protection against overpressure [max.]	Weight
	[l/min]	[dBA]	[dBA]	[bar]	[kg]
R412010166	14	53	58	5	0.033
R412010167	24	59	65		

Nozzle material: Aluminum

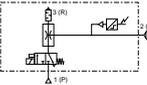
NC = ejector line closed without current

Output signal: 2 x PNP, NO (normally open contact)

Accessories ▶ Vacuum generators
Ejector, Series EBS
▶ Thread connection ▶ electrical control, T-design ▶ with silencer ▶ vacuum switch: electronic, adjustable


00135361

Type	Ejector
Ambient temperature min./max.	+0°C / +50°C
Medium temperature min./max.	+0°C / +50°C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Protection class	IP40
Duty cycle according to DIN VDE 0580 standard	100 %
Hysteresis	2% of the final value, fixed
Precision (% of full scale value)	± 3 %
Repeatability (% of full scale value)	± 1 %
DC operating voltage	24 V
Voltage tolerance DC	- 5% / +10%
Power consumption Solenoid valve	1.3 W
Switching point	adjustable 0-100%

	Type	Nozzle Ø	Com-pressed air connection	Vacuum connection	Max. vacuum level at p.opt	Max. suction capacity	Part No.
		[mm]			[%]	[l/min]	
	EBS-ET-05-NC	0.5	M5	M5	84	7.5	R412010174
	EBS-ET-07-NC	0.7			85	16.8	R412010175

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Protection against overpressure [max.]	Weight
	[l/min]	[dBA]	[dBA]	[bar]	[kg]
R412010174	14	53	58	5	0.0335
R412010175	24	59	65		

Nozzle material: Aluminum

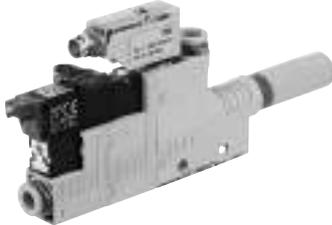
NC = ejector line closed without current

Output signal: 2 x PNP, NO (normally open contact)

Accessories ▶ Vacuum generators

Ejector, Series EBS

▶ push-in fitting ▶ electrical control, T-design ▶ with release valve ▶ with silencer ▶ vacuum switch: electronic, adjustable



00135359

Type	Ejector
Ambient temperature min./max.	+0 °C / +50 °C
Medium temperature min./max.	+0 °C / +50 °C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m³ - 1 mg/m³
Protection class	IP40
Duty cycle according to DIN VDE 0580 standard	100 %
Hysteresis	2% of the final value, fixed
Precision (% of full scale value)	± 3 %
Repeatability (% of full scale value)	± 1 %
DC operating voltage	24 V
Voltage tolerance DC	- 5% / +10%
Power consumption Solenoid valve	1.3 W
Switching point	adjustable 0-100%

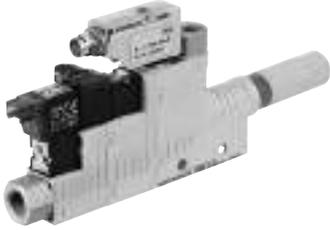
	Type	Nozzle Ø	Com-pressed air connection	Vacuum connection	Max. vacuum level at p.opt	Max. suction capacity	Part No.
		[mm]			[%]	[l/min]	
	EBS-ET-05-NC	0.5			84	7.5	R412010168
	EBS-ET-07-NC	0.7	Ø 4	Ø 4	85	16.8	R412010169
	EBS-ET-10-NO	1			86	35	R412010170
	EBS-ET-15-NO	1.5	Ø 6	Ø 8	84	71	R412010171
	EBS-ET-20-NO	2			86	123	R412010172
	EBS-ET-25-NO	2.5	Ø 8	Ø 8	84	223	R412010173

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Protection against overpressure [max.]	Weight
	[l/min]	[dBA]	[dBA]	[bar]	[kg]
R412010168	14	53	58	5	0.041
R412010169	24	65	68	5	0.07
R412010170	48	59	65	5	0.07
R412010171	118	71	71	5	0.07
R412010172	208	68	77	5	0.154
R412010173	320	70	78	5	0.154

Nozzle material: Aluminum
 NC = ejector line closed without current
 NO = ejector suction line open without current
 Output signal: 2 x PNP, NO (normally open contact)

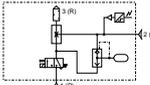
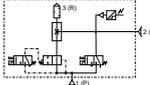
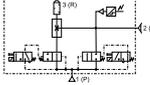
Accessories ▶ Vacuum generators
Ejector, Series EBS

▶ Thread connection ▶ electrical control, T-design ▶ with release valve ▶ with silencer ▶ vacuum switch:
electronic, adjustable



00135358

Type	Ejector
Ambient temperature min./max.	+0 °C / +50 °C
Medium temperature min./max.	+0 °C / +50 °C
Working pressure min./max.	3 bar / 6 bar
Medium	Compressed air
Max. particle size	5 μm
Oil content of compressed air	0 mg/m ³ - 1 mg/m ³
Protection class	IP40
Duty cycle according to DIN VDE 0580 standard	100 %
Hysteresis	2% of the final value, fixed
Precision (% of full scale value)	± 3 %
Repeatability (% of full scale value)	± 1 %
DC operating voltage	24 V
Voltage tolerance DC	- 5% / +10%
Power consumption Solenoid valve	1.3 W
Switching point	adjustable 0-100%

	Type	Nozzle Ø	Com-pressed air connection	Vacuum connection	Max. vacuum level at p.opt	Max. suction capacity	Part No.
		[mm]			[%]	[l/min]	
	EBS-ET-05-NC	0.5	M5	M5	84	7.5	R412010176
	EBS-ET-07-NC	0.7			85	16.8	R412010177
	EBS-ET-10-NO	1	G 1/8	G 1/8	86	35	R412010178
	EBS-ET-15-NO	1.5			84	71	R412010179
	EBS-ET-20-NO	2	G 1/4	G 3/8	86	123	R412010180
	EBS-ET-25-NO	2.5			84	223	R412010181

Part No.	Air consumption at p.opt.	Sound pressure level intake effect	Sound pressure level intake effect	Protection against overpressure [max.]	Weight
	[l/min]	[dBA]	[dBA]	[bar]	[kg]
R412010176	14	53	58	5	0.0415
R412010177	24	65	68		
R412010178	48	59	65	5	0.075
R412010179	118	71	71		
R412010180	208	68	77	5	0.152
R412010181	320	70	78		

Nozzle material: Aluminum

NC = ejector line closed without current

NO = ejector suction line open without current

Output signal: 2 x PNP, NO (normally open contact)

Accessories ▶ Non-contact transport system

Non-contact transport system, Series NCT-AL

▶ F = 0.9 - 46 N ▶ Ø 20 - 100 mm



PNCT_004

Version	Bernoulli principle
Working pressure min./max.	1 bar / 7 bar
Ambient temperature min./max.	+5°C / +60°C
Medium	Compressed air
Max. particle size	40 µm
Oil content of compressed air	0 mg/m³

	Diameter	Holding force at 5 bar	Air consumption at 5 bar	Port	Weight	Note	Part No.
	[mm]	[N]	[l/min]		[kg]		
	20	0.9	100	M5	0.02	1); 3)	2650100010
	30	1.3	100	M5	0.03	1); 3)	2650100020
	40	2	110	M5	0.05	1); 3)	2650100030
	60	6	210	M5	0.12	1); 3)	2650100040
	100	46	228	G 1/8	0.3	2); 4)	R412010640

1) Stop: Silicone caoutchouc
 2) Stop: Hydrogenated nitrile butadiene rubber
 3) Nozzle: Stainless steel
 4) Nozzle: Aluminum, anodized

Non-contact transport system, Series NCT-PK

▶ F = 2.5 - 12 N ▶ Ø 20 - 60 mm ▶ for the food and beverage industry



00138097

Version	Bernoulli principle
Working pressure min./max.	1 bar / 7 bar
Ambient temperature min./max.	+5°C / +60°C
Medium	Compressed air
Max. particle size	40 µm
Oil content of compressed air	0 mg/m³

	Diameter	Holding force at 5 bar	Air consumption at 5 bar	Port	Weight	Part No.
	[mm]	[N]	[l/min]		[kg]	
	20	2.5	150	M5	0.01	R412014866
	30	3	150		0.02	R412014867
	40	5.5	150		0.03	R412014868
	60	12	220		0.07	R412014869

Stop: Silicone caoutchouc
 Nozzle: Stainless steel

Accessories ▶ Vacuum suction grippers
Series BSG
▶ F = 0.95 - 137.4 N ▶ external diameter: 10.4 - 74 mm ▶ external thread


00121326

Ambient temperature min./max. -10°C / +70°C
 Min./max. temporary ambient temperature (<30 s) -30°C / +120°C
 Hardness according to standard ISO 7619-1:2010 55 ± 5 Shore A
 Abrasion value according to DIN 535 16 ISO 4649:2002 100-120 mm³

	Compressed air connection	external diameter	Holding force ^{*)}	Separation force	Volume	Max. curving on object R min	Weight	Delivery unit	Part No.
		[mm]	[N]	[N]	[cm ³]	[mm]	[kg]	[Pieces]	
	G 1/8	10.4	0.95	3.8	0.23	10	0.005	2	1820415031
	G 1/8	15.6	2.3	6.7	0.75	20	0.006	2	1820415035
	G 1/8	20	5.7	15.2	1.4	25	0.006	1	1820415039
	G 1/4	30	13.6	39.6	4.75	40	0.016	1	1820415043
	G 1/4	38	22.8	64.5	9.25	60	0.019	1	1820415047
	G 1/4	50	51.3	95	26.25	75	0.027	1	1820415051
	G 1/4	74	137.4	218	76	70	0.071	1	1820415055

^{*)} Theoretical value at 60% vacuum level, without safety factor

Accessories ▶ Vacuum suction grippers

Series FSG

▶ F = 0.75 - 4 N ▶ external diameter: 5 - 10 mm ▶ external thread



00121318

Ambient temperature min./max. -10 °C / +70 °C
 Min./max. temporary ambient temperature (<30 s) -30 °C / +120 °C
 Hardness according to standard ISO 7619-1:2010 55 ± 5 Shore A
 Abrasion value according to DIN 535 16 ISO 4649:2002 100-120 mm³

	Com-pressed air connection	external diameter	Holding force*)	Volume	Max. curving on object Rmin	Weight	Delivery unit	Part No.
		[mm]	[N]	[cm ³]	[mm]	[kg]	[Piece(s)]	
	M5	5	0.75	0.005	8	0.0014	2	1820455050
	M5	6	1.2	0.008	8	0.0014		1820455054
	M5	8	2.3	0.03	10	0.0015		1820455058
	G 1/8	10	4	0.07	13	0.0016		1820455062

*) Theoretical value at 60% vacuum level, without safety factor

Series FSG

▶ F = 9 - 350 N ▶ external diameter: 15 - 95 mm ▶ external thread



00121322

Ambient temperature min./max. -10 °C / +70 °C
 Min./max. temporary ambient temperature (<30 s) -30 °C / +120 °C
 Hardness according to standard ISO 7619-1:2010 55 ± 5 Shore A
 Abrasion value according to DIN 535 16 ISO 4649:2002 100-120 mm³

	Com-pressed air connection	external diameter	Holding force*)	Volume	Max. curving on object Rmin	Weight	Delivery unit	Part No.
		[mm]	[N]	[cm ³]	[mm]	[kg]	[Piece(s)]	
	G 1/8	15	9	0.4	13	0.0058	2	1820455066
	G 1/8	20	15.5	0.8	20	0.007	1	1820455070
	G 1/8	25	26.5	1.3	25	0.0072	1	1820455074
	G 1/8	28.8	34	1.3	40	0.0079	1	1820455078
	G 1/8	35	44	2.7	50	0.0106	1	1820455082
	G 1/8	40	57.7	3.8	50	0.0122	1	1820455086
	G 1/8	50	91	7	75	0.0153	1	1820455090
	G 1/4	60	125	10	100	0.0342	1	1820455094
	G 1/4	80	260	25	150	0.0625	1	1820455098
	G 1/4	95	350	35	200	0.1022	1	1820455102

*) Theoretical value at 60% vacuum level, without safety factor

Accessories ▶ Vacuum suction grippers
Series FSO
▶ F = 3.1 - 112.6 N ▶ external thread


00121334

Ambient temperature min./max. -10°C / +70°C
 Min./max. temporary ambient temperature (<30 s) -30°C / +120°C
 Hardness according to standard ISO 7619-1:2010 60 ± 5 Shore A
 Abrasion value according to DIN 535 16 ISO 4649:2002 100-120 mm³

	Compressed air connection	Holding force*)	Volume	Max. curving on object Rmin	Weight	Delivery unit	Part No.
		[N]	[cm ³]	[mm]	[kg]	[Piece(s)]	
	M5	3.1	0.036	4	0.004	1	1820415121
	M5	4.5	0.058	4	0.004		1820415122
	G 1/8	8	0.138	8	0.007		1820415123
	G 1/8	12.2	0.28	8	0.007		1820415124
	G 1/4	28.2	0.98	10	0.014		1820415125
	G 1/4	50.1	2.3	20	0.018		1820415126
	G 1/4	78.3	4.7	30	0.026		1820415127
	G 1/4	112.6	8.5	35	0.035		1820415128

*) Theoretical value at 60% vacuum level, without safety factor

Accessories ▶ Vacuum suction grippers

Series FSR

▶ F = 16 - 2560 N ▶ external diameter: 30 - 300 mm ▶ internal thread



7300-321

Ambient temperature min./max. -10°C / +70°C
 Hardness according to standard ISO 7619-1:2010 60 ± 5 Shore A
 Abrasion value according to DIN 535 16 ISO 4649:2002 105 mm³

	Com-pressed air connection	external diameter	Holding force ^{*)}	Volume	Max. curving on object Rmin	Weight	Delivery unit	Part No.
		[mm]	[N]	[cm ³]	[mm]	[kg]	[Piece(s)]	
	M5	30	16	2.5	50	0.01	1	7320300000
	G 1/8	50	64	8	110	0.02		7320500000
	G 1/4	75	160	28	165	0.03		7320750000
	G 3/8	100	304	56	165	0.07		7321000000
	G 1/2	150	608	160	306	0.21		7321500000
	G 3/4	225	1480	500	465	0.75		7322250000
	G 1	300	2560	1250	758	1.8		7323000000

^{*)} Theoretical value at 60% vacuum level, without safety factor

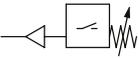
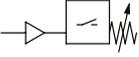
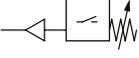
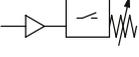
Accessories ▶ Pressure sensors
Pressure Switches, Series PM1

▶ Operating pressure: -0.9 - 16 bar ▶ mechanical ▶ electr. connection: Plug, ISO 4400, form A ▶ Spring-loaded bellows, adjustable



21212

Measurement	Relative pressure
Switching element	microswitch (input/output)
Switching frequency	1,5 Hz
Protection against overpressure	80 bar
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-10°C / +80°C
Medium	Compressed air hydraulic oil
Shock resistance max. (XYZ direction)	15 g
Vibration resistance (XYZ direction)	10 g (60 - 500 Hz)
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage min./max.	12 V - 125 V
Operational voltage AC min./max.	12 V - 250 V
Mounting orientation	Any
Mounting Types	via through holes
Function	change-over contact (mechanical)
Protection class	IP65
Weight	0.16 kg

	Type	Operating pressure range min./max.	Compressed air connection	Repeatability (% of full scale value)	Note	Part No.
		[bar]				
	PM1-M3-G014	-0.9 / 0	internal thread, G 1/4	± 1 %	2)	R412010711
	PM1-M3-G014	0.2 / 16	internal thread, G 1/4	± 1 %	1); 3)	R412010712
	PM1-M3-F001	-0.9 / 0	Flange with O-ring, Ø 5x1,5	± 1 %	2)	R412010714
	PM1-M3-F001	0.2 / 16	Flange with O-ring, Ø 5x1,5	± 1 %	1); 3) 1); 2)	R412010715 R412010718

1) Min. switching pressure range 0.2 bar falling/0.5 bar rising
 2) Scope of delivery: with electrical connector
 3) Scope of delivery: without electrical connector

Accessories ▶ Pressure sensors

Pressure Switches, Series PM1

▶ Operating pressure: -0.9 - 16 bar ▶ mechanical ▶ electr. connection: Plug, M12x1 ▶ Spring-loaded bellow, adjustable



Measurement	Relative pressure
Switching element	microswitch (input/output)
Switching frequency	1,5 Hz
Protection against overpressure	80 bar
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-10°C / +80°C
Medium	Compressed air hydraulic oil
Shock resistance max. (XYZ direction)	15 g
Vibration resistance (XYZ direction)	10 g (60 - 500 Hz)
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage min./max.	12 V - 30 V
Operational voltage AC min./max.	12 V - 30 V
Mounting orientation	Any
Mounting Types	via through holes
Function	change-over contact (mechanical)
Protection class	IP67
Weight	0.15 kg

	Type	Operating pressure range min./max.	Compressed air connection	Repeatability (% of full scale value)	Note	Part No.
		[bar]				
	PM1-M3-G014	-0.9 / 0	internal thread, G 1/4	± 1 %	-	R412010716
	PM1-M3-G014	0.2 / 16	internal thread, G 1/4	± 1 %	1)	R412010717
	PM1-M3-F001	-0.9 / 0	Flange with O-ring, Ø 5x1,5	± 1 %	-	R412010719
	PM1-M3-F001	0.2 / 16	Flange with O-ring, Ø 5x1,5	± 1 %	1)	R412010720

1) Min. switching pressure range 0.2 bar falling/0.5 bar rising

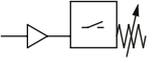
Accessories ▶ Pressure sensors
Pressure Switches, Series PM1

▶ Operating pressure: 0.2 - 16 bar ▶ mechanical ▶ electr. connection: Plug, ISO 4400, form A ▶ Compressed air connection: CNOMO ▶ Spring-loaded bellow, non-adjustable



18832

Measurement	Relative pressure
Switching element	microswitch (input/output)
Switching frequency	1,5 Hz
Protection against overpressure	80 bar
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-10°C / +80°C
Medium	Compressed air hydraulic oil
Shock resistance max. (XYZ direction)	15 g
Vibration resistance (XYZ direction)	10 g (60 - 500 Hz)
Repeatability (% of full scale value)	± 1 %
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage min./max.	12 V - 30 V
Operational voltage AC min./max.	12 V - 250 V
DC switching current, max.[A]	3
Mounting orientation	Any
Mounting Types	via through holes
Function	change-over contact (mechanical)
Protection class	IP65
Weight	0.16 kg

	Type	Operating pressure range min./max.	Part No.
		[bar]	
	PM1-M3-F001	0.2 / 16	R412010721

Min. switching pressure range 0.2 bar falling/0.5 bar rising
Scope of delivery: without electrical connector

Accessories ▶ Pressure sensors

Pressure sensor, Series PE2

▶ Operating pressure: -1 - 16 bar ▶ electronic ▶ Output signal Analog: 1 x PNP, 1 x analog 4-20 mA ▶ Output signal digital: 1 x PNP - 2 x PNP ▶ electr. connection: Plug, M12x1, 5-pin



23395

Certificates	CE declaration of conformity RoHS
Measurement	Relative pressure
Display	OLED
Units displayed	bar, mbar, psi, kPa, MPa, %
Operating pressure display	2 LED
Switching logic	Hysteresis function NO/NC (programmable) Window function NO/NC (programmable)
Ambient temperature min./max.	-10 °C / +75 °C
Medium temperature min./max.	-10 °C / +75 °C
Medium	Compressed air hydraulic oil Neutral gases Neutral fluids
Shock resistance max. (XYZ direction)	30 g
Vibration resistance (XYZ direction)	5 g (10 - 150 Hz)
Precision (% of full scale value)	± 1 % including temperature drift
Switching time	< 10 ms at loads < 100 kΩ > 10 ms at loads > 100 kΩ
Switching point	Adjustable ≥ 0.5% FS to 100% FS
Resetting point	Adjustable 0% FS to SP -0.5% FS (or +0.5% FS when SP < 0)
Hysteresis	adjustable
Switching/reset delay	adjustable
DC operating voltage min./max.	15 V - 32 V
Power consumption	<50 mA
DC switching current, max.[A]	0,5
Maximum load (analog current output)	600 Ω
Short circuit resistance	short circuit resistant
Mounting orientation	Any
Mounting Types	via through holes
Function	1 x PNP, 2 x PNP 1x PNP and 1x analog
Protection class	IP65
Weight	0.3 kg

	Type	Operating pressure range min./max.	Protection against over-pressure	Output signal		Compressed air connection	Part No.
				Analog	digital		
		[bar]					
	PE2-P1-G014	-1 / 1	10 bar	-	1 x PNP	internal thread, G 1/4 Flange with O-ring, Ø 5x1,5	R412010848
	PE2-P1-F001			-	1 x PNP		R412010849
	PE2-P2-G014			-	2 x PNP	internal thread, G 1/4	R412010853
	PE2-P1-G014			4 - 20 mA	1 x PNP		R412010856
	PE2-P1-G014	0 / 16	40 bar	-	1 x PNP	internal thread, G 1/4 Flange with O-ring, Ø 5x1,5	R412010850
	PE2-P1-F001			-	1 x PNP		R412010851
	PE2-P2-G014			-	2 x PNP	internal thread, G 1/4 Flange with O-ring, Ø 5x1,5	R412010854
PE2-P2-F001	-	2 x PNP	R412010855				
	PE2-P1-G014	0 / 16	40 bar	-	1 x PNP	internal thread, G 1/4	R412010857
	PE2-P2-F001			4 - 20 mA	1 x PNP	Flange with O-ring, Ø 5x1,5	R412010858

Pressure sensor, Series PE5

▶ Operating pressure: -1 - 12 bar ▶ electronic ▶ Output signal Analog: 0 - 10 V DC, 4 - 20 mA ▶ Output signal digital: 2 outputs - 1 output ▶ electr. connection: Plug, M12x1, 4-pin



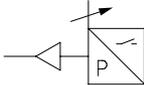
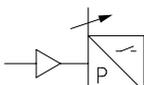
23003

Certificates	CE declaration of conformity RoHS Conforms with REACH free of substances that impair surface wetting in the coating process
Measurement	Relative pressure
Display	LCD display, 4 digits Color setting: green or red
Units displayed	bar, psi, kPa, MPa, inHg
Switching logic	NO/NC (adjustable)
Ambient temperature min./max.	+0 °C / +60 °C
Medium temperature min./max.	+0 °C / +60 °C
Medium	Compressed air (max. 40 µm)
Oil content of compressed air	0 mg/m ³ / 40 mg/m ³
Shock resistance max. (XYZ direction)	30 g
Vibration resistance (XYZ direction)	5 g (10 - 150 Hz)
Precision (% of full scale value)	±1.5% in temperature range of 10 - 30 °C ± 2 % including temperature drift
Repeatability (% of full scale value)	± 0,2 %
Switching time	< 5 ms
Switching point	adjustable 0-100%
Resetting point	adjustable 0-100%
Hysteresis	adjustable
Delayed hysteresis	adjustable
Window function	adjustable
DC operating voltage min./max.	17 V - 30 V
Analog output	0 - 10 V DC, 4 - 20 mA
Power consumption	<40 mA
DC switching current, max.[A]	0.1
Analog output linearity	<± 0.5% of the final value
Maximum load (analog current output)	600 Ω
Short circuit resistance	clocking
Mounting Types	Directly on hat rail and wall mounting For panel installation using mounting kit via double nipple
Protection class	IP65 IP67 with connections assembled
Weight	0.04 kg

Accessories ▶ Pressure sensors

Pressure sensor, Series PE5

▶ Operating pressure: -1 - 12 bar ▶ electronic ▶ Output signal Analog: 0 - 10 V DC, 4 - 20 mA ▶ Output signal digital: 2 outputs - 1 output ▶ electr. connection: Plug, M12x1, 4-pin

	Operating pressure range min./max.	Protection against overpressure	Output signal		Compressed air connection	Part No.
			Analog	digital		
	[bar]					
	-1 / 0	5 bar	-	2 outputs, PNP, NPN, Push-pull	internal thread, G 1/4	R412010761
	-1 / 0		1 output, 0 - 10 V DC, 4 - 20 mA	1 output, PNP, NPN, Push-pull	internal thread, G 1/4	R412010769
	-1 / 0		1 output, 0 - 10 V DC, 4 - 20 mA	1 output, PNP, NPN, Push-pull	push-in fitting, Ø 4	R412010768
	-1 / 0		-	2 outputs, PNP, NPN, Push-pull	push-in fitting, Ø 4	R412010760
	-1 / 1		-	2 outputs, PNP, NPN, Push-pull	internal thread, G 1/4	R412010763
	-1 / 1		-	2 outputs, PNP, NPN, Push-pull	push-in fitting, Ø 4	R412010762
	0 / 6	15 bar	1 output, 0 - 10 V DC, 4 - 20 mA	1 output, PNP, NPN, Push-pull	internal thread, G 1/4	R412010771
	0 / 6	15 bar	1 output, 0 - 10 V DC, 4 - 20 mA	1 output, PNP, NPN, Push-pull	push-in fitting, Ø 4	R412010770
	0 / 6	15 bar	-	2 outputs, PNP, NPN, Push-pull	internal thread, G 1/4	R412010765
	0 / 6	15 bar	-	2 outputs, PNP, NPN, Push-pull	push-in fitting, Ø 4	R412010764
	0 / 10	15 bar	1 output, 0 - 10 V DC, 4 - 20 mA	1 output, PNP, NPN, Push-pull	internal thread, G 1/4	R412010773
	0 / 10	15 bar	1 output, 0 - 10 V DC, 4 - 20 mA	1 output, PNP, NPN, Push-pull	push-in fitting, Ø 4	R412010772
	0 / 10	15 bar	-	2 outputs, PNP, NPN, Push-pull	internal thread, G 1/4	R412010767
	0 / 10	15 bar	-	2 outputs, PNP, NPN, Push-pull	push-in fitting, Ø 4	R412010766
	0 / 12	16 bar	-	2 outputs, PNP, NPN, Push-pull	internal thread, G 1/4	R412010782
	0 / 12	16 bar	-	2 outputs, PNP, NPN, Push-pull	push-in fitting, Ø 4	R412010781

Series PE5
Accessories
Connecting cable, Series CN2
▶ Socket, M12, 5-pin, A-coded ▶ without wire end ferrule, tin-plated, 4-pin


00107009_c

Ambient temperature min./max.	-40 °C / +85 °C
Protection class	IP65
Materials:	
Cable sheath	Polyurethane

	Operating voltage max.		Max. current [A]	Number of poles	Wire cross-section [mm ²]	Cable exit	Cable length L [m]	Weight [kg]	Part No.
	[V DC]	[V AC]							
	300	250	4	4	0.34	angled 90°	3	0.13	1834484259
							5	0.202	1834484260
							10	0.387	1834484261

Connecting cable, Series CN2
▶ Socket, M12, 5-pin, A-coded ▶ without wire end ferrule, tin-plated, 5-pin ▶ screened


00129794

Ambient temperature min./max.	-25 °C / +80 °C
Cable exit	angled 90°
Wire cross-section	0.34 mm ²
Materials:	
Cable sheath	Polyurethane

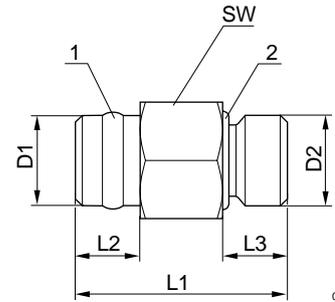
Max. current [A]	Number of poles	Cable-Ø [mm]	Cable length L [m]	Weight [kg]	Part No.
4	5	6	2.5	0.1528	R419800109
			5	0.2854	R419800110

Series PE5
Accessories

Double nipple, Series PE5



00130375



00129846

- 1) sealing ring Polytetrafluorethylen
- 2) O-ring - Acrylnitril-Butadien-Kautschuk

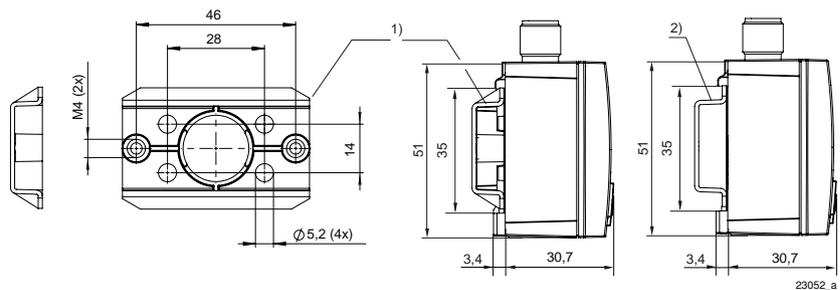
Weight [kg]	Delivery quantity [Piece]	Part No.
0.04	2	R412010015 R412010016
Housing: Brass, nickel-plated		

Part No.	D1	D2	L1	L2	L3	SW
R412010015	G 1/8	G 1/4	30	10	8,5	17
R412010016	G 1/4	G 1/4	30	10	8,5	17

Wall mounting and hat rail
► for Series PE5



23320



23052_a

- 1) Wall mounting
- 2) DIN rail

Part No.	Material	Weight [kg]	Delivery quantity [Piece]
R412010405	Polyamide	0.004	1
screws included in scope of delivery: 2 x M5x20, DIN EN ISO 4762			

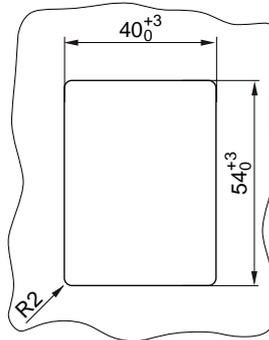
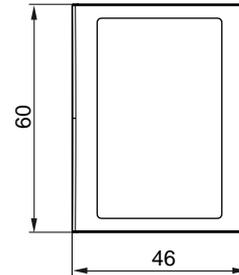
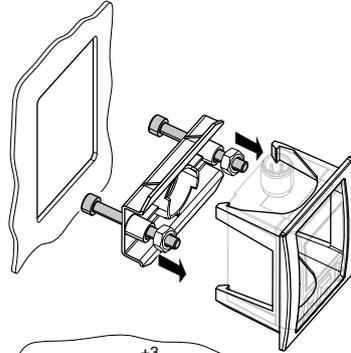
Series PE5
 Accessories

Control panel installation kit

▶ for Series PE5



23319



23036

Panel plate thickness max. 5.0 mm

Part No.	Ambient temperature min./max.	Material	Material Seal	Delivery quantity [Piece]			
R412010406	0 / 60	Acrylonitrile butadiene styrene	Polyurethane	1			

Included in scope of delivery: 1 front frame, 1 wall mounting, 2 attachment screws M4x40, 2 hexagonal nuts

Accessories ▶ Pressure sensors

Pressure sensor, Series PE6

▶ Operating pressure: -1 - 10 bar ▶ electronic ▶ electr. connection: Plug, M8x1, 4-pin ▶ Compressed air connection: Flange with O-ring, Ø 1,2x1 ▶ with sensor element based on piezo resistance



00128532_m

Measurement	Relative pressure
Display	LED
Operating pressure display	2 LED
Switching logic	NO (make contact)
Ambient temperature min./max.	+0°C / +60°C
Medium temperature min./max.	+0°C / +50°C
Medium	Compressed air
Oil content of compressed air	0 mg/m ³ / 1 mg/m ³
Shock resistance max. (XYZ direction)	10 g
Vibration resistance (XYZ direction)	10 - 55 Hz, 0,1 mm
Repeatability (% of full scale value)	± 1 %
Switching time	< 2 ms
Switching point	adjustable 0-100%
Resetting point	adjustable 0-100%
DC operating voltage min./max.	10 V - 30 V
Power consumption	<20 mA
DC switching current, max.[A]	0,2
Short circuit resistance	clocking
Mounting Types	via flange
Protection class	IP40
Weight	0.006 kg

	Type	Operating pressure range min./max.	Protection against over- pressure	Note	Part No.
		[bar]			
	PE6-P2-L HYST FEST	-1 / 0	5 bar	1); 3)	R412007880
	PE6-P2-L HYST EINST	-1 / 0	5 bar	2); 3)	R412007881
	PE6-P2-S HYST FEST	-1 / 0	5 bar	1); 4)	R412007882
	PE6-P2-S HYST EINST	-1 / 0	5 bar	2); 4)	R412007883
	PE6-P2-L HYST. FEST	0 / 10	15 bar	1); 3)	R412007884
	PE6-P2-L HYST. EINST	0 / 10	15 bar	2); 3)	R412007885
	PE6-P2-S HYST. FEST	0 / 10	15 bar	1); 4)	R412007886
	PE6-P2-S HYST. EINST	0 / 10	15 bar	2); 4)	R412007887

1) Hysteresis: 2% of the final value, fixed
 2) Hysteresis: adjustable
 3) Mounting orientation: L (horizontal)
 4) Mounting orientation: S (vertical)
 Precision (% of full scale value): ± 3 %

Flow sensor, air supply on the left, Series AF1

▶ Qn = 150 - 5000 l/min ▶ diaphragm principle ▶ Electrical connection: Plug, M12x1, 5-pin



00138948_a

Frame size	AS3
Mounting orientation	Any
Certificates	CE declaration of conformity, with reference to EMC directive
Output signal	2 x PNP / NPN and 1 x analog voltage 2 x PNP / NPN and 1 x analog current
Display	LED
Flow display unit	l/h, l/min, l/sec, m ³ /h, gal/h
Working pressure min./max.	0 bar / 16 bar
Ambient temperature min./max.	-10°C / +50°C
Medium temperature min./max.	-10°C / +50°C
Medium	Compressed air
Max. particle size	5 μm
DC operating voltage min.	15 VDC
DC operating voltage max.	30 VDC
Max. power consumption	300 mA
Output signal digital max.	100 mA
Response time	< 15 ms
Precision (% of full scale value)	± 3 %
Protection class	IP65

Qn Min.	Qn Max.	Analog output current	Analog output voltage	Weight	Part No.
[l/min]	[l/min]	[mA]	[V]	[kg]	
150	2000	- 4 - 20 mA	0 - 10 V DC -	0.395	R412010638 R412010673
250	5000	- 4 - 20 mA	0 - 10 V DC -	0.395	R412010637 R412010674

Accessories ▶ Shock absorbers
Industrial shock absorber, Series 370


2711-081

Ambient temperature min./max.	-10°C / +70°C
Medium temperature min./max.	-10°C / +70°C
Medium	Oil

	Type	Mounting thread	Max. energy absorption/stroke	Stroke	Effective mass min./max.	Return spring force min./max.	Part No.
			[Nm]	[mm]	[kg]	[N]	
	370-MA	M27x2	60	25	10 / 500	25 / 40	3701202000
		M27x2	100	40	15 / 500	25 / 40	3701204000
		M42x3	375	50	50 / 5000	50 / 90	3702005000
		M42x3	600	80	50 / 5000	50 / 90	3702008000

Part No.	Max. energy absorption/hour
	[Nm]
3701202000	54000
3701204000	54000
3702005000	126000
3702008000	126000

Adjustable stop weight and speed comes with 2 counter nuts
 Cylinder tube: Steel, bronzed
 Piston rod: Steel, hard chromated
 Stop: Steel, hardened
 Lock nut: Steel, bronzed

Accessories ▶ Shock absorbers
Industrial shock absorber, Series SA1-MC

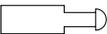
▶ sealing for piston rod: Lip ring



00136590

 Ambient temperature min./max.
 Impact speed, min./max.
 Medium

 -20°C / +80°C
 See table below
 Oil

	Type	Mounting thread	Max. energy absorption/stroke	Stroke	Effective mass min./max.	Return spring force min./max.	Part No.
			[Nm]	[mm]	[kg]	[N]	
	SA1-MC	M6x0,5	1	5	0.8 / 2.8	2 / 5	R412010284
		M6x0,5	1	5	1.5 / 4	2 / 5	R412010285
		M8x1	1.5	5	0.5 / 4	2 / 5	R412010286
		M8x1	1.5	5	0.8 / 6	2 / 5	R412010287
		M10x1	10	8	1.3 / 5.3	3.6 / 8	R412010288
		M10x1	10	8	4.3 / 20	3.6 / 8	R412010289
		M10x1	10	8	16.5 / 47	3.6 / 8	R412010290
		M12x1	14	10	0.5 / 1.8	3.5 / 7	R412010291
		M12x1	14	10	1.5 / 7.7	3.5 / 7	R412010292
M12x1	14	10	14	10	5 / 57	3.5 / 7	R412010293

Part No.	Max. energy absorption/hour	Impact speed min./max.	Mounting	Note	Delivery unit
	[Nm]	[m/s]			
R412010284	3000	0.9 / 1.6	-	1); 2); 3); 5)	1
R412010285	3000	0.7 / 1.2	Lock nut	3); 5)	
R412010286	4000	0.9 / 2.5	Lock nut	4); 6)	
R412010287	4000	0.7 / 1.9	Lock nut	4); 6)	
R412010288	24000	1.9 / 3.9	Lock nut	4); 6)	
R412010289	24000	1 / 2.2	Lock nut	4); 6)	
R412010290	24000	0.7 / 1.1	Lock nut	4); 6)	
R412010291	30000	3.5 / 5	Lock nut	4); 6)	
R412010292	30000	1.9 / 4.3	Lock nut	4); 6)	
R412010293	30000	0.7 / 2.4	Lock nut	4); 6)	

- 1) Cylinder tube: Steel, salt bath nitrocarburized
- 2) Piston rod: Stainless steel, hardened
- 3) sealing for piston rod: Polyurethane
- 4) sealing for piston rod: Acrylonitrile Butadiene Rubber
- 5) Stop: Polyoxymethylene
- 6) Stop: Polyurethane; Steel

Accessories ▶ Shock absorbers

Industrial shock absorber, Series SA1-MC

▶ sealing for piston rod: Lip ring



00136592

Ambient temperature min./max.

-20°C / +80°C

Impact speed, min./max.

See table below

Medium

Oil

Mounting

Clamping flange

	Type	Mounting thread	Max. energy absorption/stroke	Stroke	Effective mass min./max.	Return spring force min./max.	Part No.
			[Nm]	[mm]	[kg]	[N]	
	SA1-MC	M6x0,5	1	5	0.8 / 2.8	2 / 5	R412010294
		M6x0,5	1	5	1.5 / 4	2 / 5	R412010295
		M8x1	1.5	5	0.5 / 4	2 / 5	R412010296
		M8x1	1.5	5	0.8 / 6	2 / 5	R412010297
		M10x1	10	8	1.3 / 5.3	3.6 / 8	R412010298
		M10x1	10	8	4.3 / 20	3.6 / 8	R412010299
		M10x1	10	8	16.5 / 47	3.6 / 8	R412010300
		M12x1	14	10	0.5 / 1.8	3.5 / 7	R412010301
		M12x1	14	10	1.5 / 7.7	3.5 / 7	R412010302
		M12x1	14	10	5 / 57	3.5 / 7	R412010303

Part No.	Max. energy absorption/hour	impact speed min./max.	Note	Delivery unit
	[Nm]	[m/s]		
R412010294	3000	0.9 / 1.6	1); 3)	1
R412010295	3000	0.7 / 1.2	1); 3)	
R412010296	4000	0.9 / 2.5	2); 4)	
R412010297	4000	0.7 / 1.9	2); 4)	
R412010298	24000	1.9 / 3.9	2); 4)	
R412010299	24000	1 / 2.2	2); 4)	
R412010300	24000	0.7 / 1.1	2); 4)	
R412010301	30000	3.5 / 5	2); 4)	
R412010302	30000	1.9 / 4.3	2); 4)	
R412010303	30000	0.7 / 2.4	2); 4)	

- 1) sealing for piston rod: Polyurethane
 2) sealing for piston rod: Acrylonitrile Butadiene Rubber
 3) Stop: Polyoxymethylene
 4) Stop: Polyurethane; Steel
 Cylinder tube: Steel, salt bath nitrocarburized
 Piston rod: Stainless steel, ground and hardened

Industrial shock absorber, Series SA1-MC

▶ sealing for piston rod: Lip ring



00136593

Ambient temperature min./max.
Impact speed, min./max.
Medium

-20°C / +80°C
See table below
Oil

	Type	Mounting thread	Max. energy absorption/stroke	Stroke	Effective mass min./max.	Return spring force min./max.	Part No.
			[Nm]	[mm]	[kg]	[N]	
	SA1-MC	M14x1,5	30	14	3.5 / 17	13 / 23	R412010304
		M14x1,5	30	14	9.9 / 76	13 / 23	R412010305
		M14x1,5	30	14	62 / 252	13 / 23	R412010306
		M20x1,5	65	13	7.5 / 36	12 / 23	R412010307
		M20x1,5	65	13	20 / 160	12 / 23	R412010308
		M20x1,5	65	13	130 / 610	12 / 23	R412010309
		M25x1,5	220	25	24 / 120	15 / 31	R412010310
		M25x1,5	220	25	440 / 2050	15 / 31	R412010311
		M25x1,5	220	25	1760 / 10800	15 / 31	R412010312

Part No.	Max. energy absorption/hour	Impact speed min./max.	Mounting	Note	Delivery unit
	[Nm]	[m/s]			
R412010304	50000	1.9 / 4.1	Lock nut	1); 4)	1
R412010305	50000	0.9 / 2.5	-	2); 3)	
R412010306	50000	0.5 / 1	Lock nut	1); 4)	
R412010307	52000	1.9 / 4.2	Lock nut	1); 4)	
R412010308	52000	0.9 / 2.6	Lock nut	1); 4)	
R412010309	52000	0.5 / 1	Lock nut	1); 4)	
R412010310	105600	1.9 / 4.3	Lock nut	1); 4)	
R412010311	105600	1 / 2.5	Lock nut	1); 4)	
R412010312	105600	0.5 / 1	Lock nut	1); 4)	

- 1) Piston rod: Stainless steel, ground and hardened
 2) Piston rod: Stainless steel, hardened
 3) sealing for piston rod: Nitrile butadiene rubber
 4) Lock nut: Steel, salt bath nitrocarburized
 Cylinder tube: Steel, salt bath nitrocarburized

Accessories ▶ Shock absorbers
Industrial shock absorber, Series SA1-MC

▶ sealing for piston rod: Lip ring



00136595

Ambient temperature min./max.

-20°C / +80°C

Impact speed, min./max.

See table below

Medium

Oil

Mounting

Clamping flange

	Type	Mounting thread	Max. energy absorption/stroke	Stroke	Effective mass min./max.	Return spring force min./max.	Part No.
			[Nm]	[mm]	[kg]	[N]	
	SA1-MC	M14x1,5	30	14	3.5 / 17	13 / 23	R412010313
		M14x1,5	30	14	9.9 / 76	13 / 23	R412010314
		M14x1,5	30	14	62 / 252	13 / 23	R412010315
		M20x1,5	65	13	7.5 / 36	12 / 23	R412010316
		M20x1,5	65	13	20 / 160	12 / 23	R412010317
		M20x1,5	65	13	130 / 610	12 / 23	R412010318
		M25x1,5	220	25	24 / 120	15 / 31	R412010319
		M25x1,5	220	25	440 / 2050	15 / 31	R412010320
		M25x1,5	220	25	1760 / 10800	15 / 31	R412010321

Part No.	Max. energy absorption/hour	impact speed min./max.	Delivery unit
	[Nm]	[m/s]	
R412010313	50000	1.9 / 4.1	1
R412010314	50000	0.9 / 2.5	
R412010315	50000	0.5 / 1	
R412010316	52000	1.9 / 4.2	
R412010317	52000	0.9 / 2.6	
R412010318	52000	0.5 / 1	
R412010319	105600	1.9 / 4.3	
R412010320	105600	1 / 2.5	
R412010321	105600	0.5 / 1	

Cylinder tube: Steel, salt bath nitrocarburized
 Piston rod: Stainless steel, ground and hardened
 Stop: Polyoxymethylene

Accessories ▶ Shock absorbers
Industrial shock absorber, Series SA1-MA

▶ sealing for piston rod: Lip ring



00136598

Ambient temperature min./max.

-20 °C / +80 °C

Impact speed, min./max.

See table below

Medium

Oil

Mounting

Lock nut

	Type	Mounting thread	Max. energy absorption/stroke	Stroke	Effective mass min./max.	Return spring force min./max.	Part No.
			[Nm]	[mm]	[kg]	[N]	
	SA1-MA	M12x1	22	12	9 / 800	2.5 / 7	R412010322
		M14x1,5	30	14	1.6 / 1500	13 / 23	R412010323
		M20x1,5	100	19	9 / 4500	12 / 23	R412010324
		M25x1,5	220	25	22 / 11000	15 / 31	R412010325
		M25x1,5	390	40	38 / 18000	11 / 20	R412010326
		M33x1,5	300	25	60 / 2950	30 / 50	R412010327
		M33x1,5	500	50	100 / 4000	23 / 50	R412010328
		M64x2	5000	100	1000 / 62500	45 / 130	R412010329
M64x2	8000	150	1250 / 105000	35 / 130	R412010330		

Part No.	Max. energy absorption/hour	impact speed min./max.	Note	Delivery unit
	[Nm]	[m/s]		
R412010322	35200	0.2 / 3.5	1); 3)	1
R412010323	50000	0.1 / 6	1); 3)	
R412010324	76500	0.1 / 6	1); 3)	
R412010325	105600	0.1 / 6	1); 3)	
R412010326	175600	0.1 / 6	1); 3)	
R412010327	120000	0.02 / 6	2); 4)	
R412010328	150000	0.02 / 6	2); 4)	
R412010329	350000	0.02 / 6	2); 4)	
R412010330	400000	0.02 / 6	2); 4)	

- 1) Cylinder tube: Steel, salt bath nitrocarburized
 2) Cylinder tube: Steel, bronzed
 3) Lock nut: Steel, salt bath nitrocarburized
 4) Lock nut: Steel, bronzed
 Piston rod: Stainless steel, ground and hardened
 Stop: Steel, hardened and bronzed

Accessories ▶ Silencers

Silencers, Series SI1
▶ Sintered bronze

Working pressure min./max.
Ambient temperature min./max.
Medium

0 bar / 10 bar
-25 °C / +80 °C
Compressed air



P100_060

Compressed air connection	Sound pressure level [dB]	Qn [l/min]	Part No.
M5	72	460	1827000006
M7	-	-	8140000700
G 1/8	75	1500	1827000000
G 1/4	-	-	R412004817
G 1/4	79	2900	1827000001
G 3/8	84	5900	1827000002
G 1/2	90	7100	1827000003
G 3/4	92	8800	1827000004
G 1	102	11100	1827000005

Silencers, Series SI1
▶ Sintered bronze



P100_037

Working pressure min./max.
Ambient temperature min./max.
Medium

0 bar / 10 bar
-25 °C / +80 °C
Compressed air

Compressed air connection	Sound pressure level [dB]	Qn [l/min]	Part No.
M5	79	280	1827000032
G 1/8	85	640	1827000031
G 1/4	88	900	1827000033
G 3/8	90	1750	1827000034
G 1/2	85	2000	1827000035
G 3/4	82	3400	8145003400
G 1	82	5100	8145001000

Accessories ▶ Silencers
Silencers, Series SI1
 ▶ Polyethylene


00124883

Working pressure min./max.
 Ambient temperature min./max.
 Medium

0 bar / 10 bar
 -25°C / +80°C
 Compressed air

Compressed air connection	Sound pressure level	Qn	Note	Part No.
	[dB]	[l/min]		
Ø 4	-	260	1)	R412007519
Ø 6	82	583	1)	R412007899
	80	585		R412000591
Ø 8	90	1185	1)	R412007520
Ø 10	95	2560	1)	R412000593
Ø 12	97	3870	2)	R412007715

1) Nominal flow Qn at p1 = 6 bar (absolute) freely discharged. Sound pressure level measured at 6 bar against atmosphere at 1 m distance.
 2) Nominal flow Qn at p1 = 5 bar (absolute) freely discharged. Sound pressure level measured at 5 bar against atmosphere at 1 m distance.

AVENTICS GmbH

Ulmer Straße 4
30880 Laatzen
www.aventics.com
info@aventics.com



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