R412020720

AVENTICS Series RPC Round cylinders

2024-04-05

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The AVENTICS Series RPC round profile cylinders offer a wide variety of connection options. They are easy to clean and suitable for packaging applications in the food industry due to food grade lubricants. The Series RPC can also be used in standard applications across machine automation needs.





Technical data

Industry Industrial

Type Version: compact type

Piston \emptyset 63 mm Stroke 100 mm Ports G 3/8

Functional principle Double-acting
Cushioning Elastic cushioning
Magnetic piston Piston with magnet
Environmental requirements Industry standard
ATEX optional

Piston rod thread - type External thread

Piston rod thread M16x1,5
Piston rod single

Scraper Standard Industry Scraper

Pressure for determining piston forces 6,3 bar
Retracting piston force 1765 N
Extracting piston force 1960 N
Min. ambient temperature -20 °C
Max. ambient temperature 80 °C
Min. working pressure 1 bar

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Max. working pressure

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Impact energy	1.5 J	2024-04-03
Weight 0 mm stroke	1.62 kg	
Weight +10 mm stroke	0.044 kg	
Stroke max.	1200 mm	
Medium	Compressed air	
Min. medium temperature	-20 °C	
Max_medium_temperature	80 °C	

10 bar

 $\begin{array}{lll} \mbox{Min. medium temperature} & -20 \ ^{\circ}\mbox{C} \\ \mbox{Max. medium temperature} & 80 \ ^{\circ}\mbox{C} \\ \mbox{Max. particle size} & 50 \ \mu\mbox{m} \\ \mbox{Min. oil content of compressed air} & 0 \ \mbox{mg/m}^{3} \\ \mbox{Max. oil content of compressed air} & 5 \ \mbox{mg/m}^{3} \\ \end{array}$

Clamping piece for magnetic field sensor Clamping piece for magnetic field sensor

necessary necessary

Material

Piston rod Stainless Steel
Scraper material Polyurethane
Seal material Polyurethane
Material, front cover Aluminum
Cylinder tube Stainless Steel
End cover Aluminum

Nut for piston rod Steel, chrome-plated Guide bushing Steel, chrome-plated

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Technical information

Use our Internet configurator to order these variants with coarse-pitch thread M10x1.5 or M12x1.75. ATEX-certified cylinders with identification II 2G Ex h IIC T4 Gb / II 2D Ex h IIIC T135°C Db_X can be generated in the Internet configurator.

The operating temperature range for ATEX-certified cylinders is -20°C ... 60°C.

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

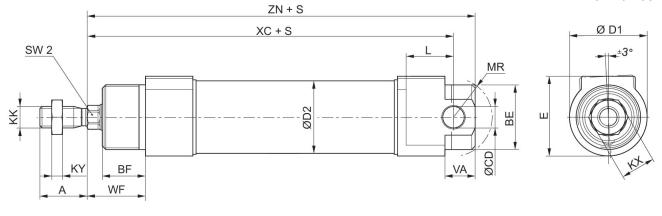
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in https://www.emerson.com/en-us/support).

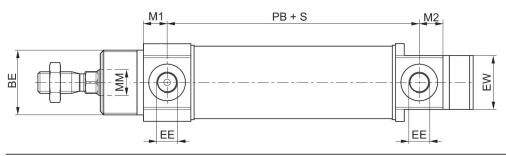
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Dimensions

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S=stroke

Piston Ø	А	BE	BF	Ø CD H8	Ø D1	Ø D2		EE	EW
32	22	M30x1,5	20	10	36	33.5	37	G 1/8	25
40	24	M38x1.5	23	12	45	41.5	45	G 1/4	30
50	32	M45x1,5	24	12	55	52.5	55	G 1/4	35
63	32	M45x1,5	26.5	16	69	65.4	69	G 3/8	35

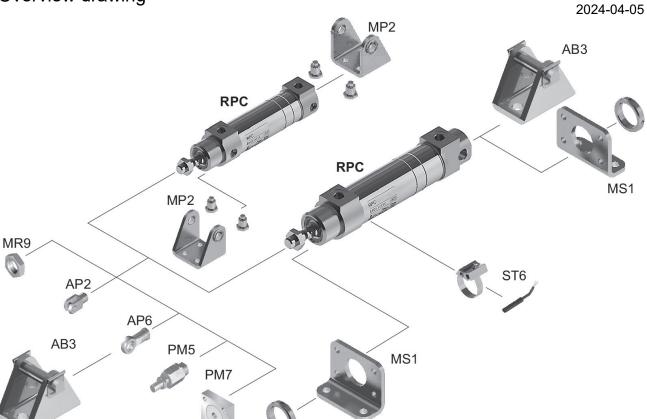
Piston Ø	KK	KX	KY	L min.	Ø MM f8	M1	M2	MR	PB
32	M10x1,25*	16	5	22	12	11	11	18	67
40	M12x1,25*	19	6	23	16	11.5	11.5	22.5	78
50	M16x1,5	24	8	26	20	11.5	11.5	25.5	77.5
63	M16x1,5	24	8	29	20	13.5	13.5	36.5	81.5

Piston Ø	SW2	VA	WF	XC	ZN
32	10	14	27	120	130
40	13	15	32	136	147
50	17	18	33.5	141	152
63	17	20	36.5	151	165

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Overview drawing



NOTE: This overview drawing is only for orientation to indicate where the various accessory parts can be fastened to the cylinder. The illustration has been simplified for this purpose. It is thus not possible to derive the dimensions from this overview.