# Stainless Steel Round Cylinder, Series CSL-RD

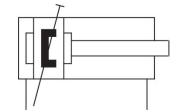
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General series information Series CSL-RD

■ The AVENTICS Series CSL-RD (ISO 6432) cylinder is a stainless-steel round cylinder, configurable in three different designs: standard, hygienic and short. The Series CSL-RD (ISO 6432) has a smooth profile and low surface roughness made of stainless steel, NSF-H1 grease and FDA compliant seals it is suitable for food contact. In addition, the cylinders are certified in accordance with regulation (EC) No 1935/2004.



- Clean and compact design
- The undercut-free scrapers prevent the accumulation of dirt and dead space around the piston rod
- Guaranteed food safety
- Resistant to chemicals
- Offers piston diameters from 16 mm to 63 mm
- Configurations available as single piston rod, elastic/ pre-adjusted/ manual adjusted cushioning, with magnetic detection, ATEX



#### Technical data

Industry Industrial

Type

Version: hygienic design

Piston Ø 32 mm Stroke 200 mm

Functional principle

Double-acting Cushioning

Pneumatic pre-adjusted cushioning

Magnetic piston Piston with magnet

**Environmental requirements** 

Industry standard

suitable for use in food processing

Piston rod single Scraper

Heat-Resistant Scraper

Pressure for determining piston forces 6,3 bar



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Retracting piston force

435 N

Extracting piston force

505 N

Min. ambient temperature

-20 °C

Max. ambient temperature

80 °C

Working pressure min.

1 bar

Working pressure max

10 bar Ports G 1/8

Piston rod thread

M10x1,25

Cushioning length

16 mm

Cushioning energy

3.4 J

Weight 0 mm stroke

0.699 kg

Weight +10 mm stroke

0.015 kg Stroke max. 1200 mm Medium

Compressed air

Min. medium temperature

-20 °C

Max. medium temperature

80 °C

Max. particle size

50 µm

Oil content of compressed air min.

0 mg/m<sup>3</sup>

Oil content of compressed air max.

5 mg/m<sup>3</sup>

Clamping piece for magnetic field sensor

necessary

Clamping piece for magnetic field sensor necessary

### Material

Piston rod Stainless Steel Piston material

Aluminum

Scraper material

Thermoplastic polyurethane (TPU)

Ultra-high-molecular-weight polyethylene (UHMW-PE)

Material, front cover

Stainless Steel

Cylinder tube

Stainless Steel

End cover Stainless Steel Piston seal

Nitrile butadiene rubber

Nut for cylinder mounting

Stainless Steel
Nut for piston rod
Stainless Steel
Guide bushing

Plastic
Part No.
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#### Technical information

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.

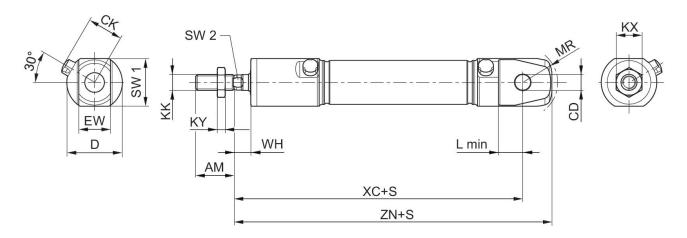
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

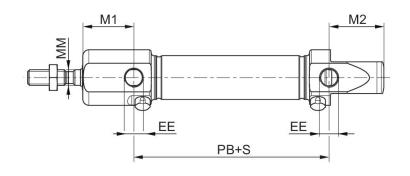
The oil content of compressed air must remain constant during the life cycle.

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



## **Dimensions**





S = stroke

Piston Ø	AM-2	CD H9	CK	D	EE	EW d13	KK	KX	KY
16	16	6	14,7	22	M5	12	M6	10	3,2
20	20	8	17,9	28	G 1/8	16	M8	13	4
25	22	8	20,2	33	G 1/8	16	M10x1,25	17	5
32	22	10	21,5	38	G 1/8	16	M10x1,25	17	5
40	24	12	27	49	G 1/4	18	M12x1,25	18	6

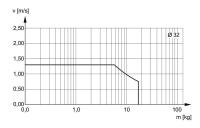
Piston Ø	L min	M1	M2	MM f8	MR	PB ±1	WH ±1,2	XC ±1	ZN ± 1
16	9	21,2	22,7	6	16	43,6	7,5	82	94,7
20	12	25,7	27,7	8	18	48,6	8	95	109,7
25	12	28,2	29,7	10	19	51,8	9,5	104	119,7
32	14	34,6	11,7	12		46	8,9	117,5	129,5
40	16	38	8,7	16		66	10,8	139,6	153,5

Piston Ø	SW 1	SW 2
16	20	5
20	24	6
25	28	8
32	35	10



Piston Ø	SW 1	SW 2		
40	45	13		

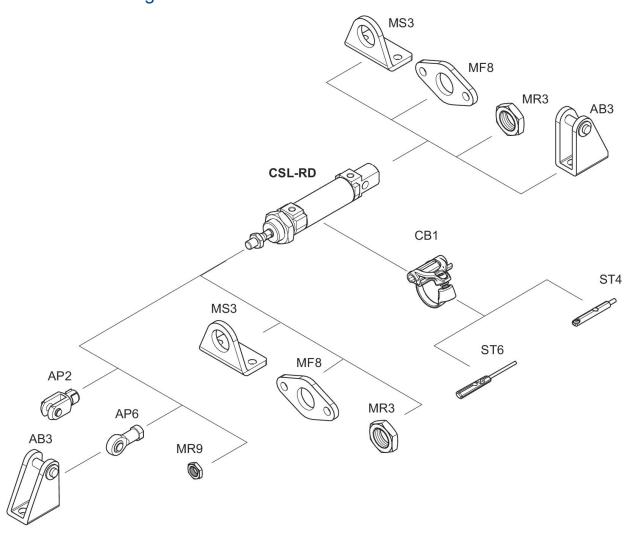
## Cushioning diagram



v = Piston velocity [m/s] m = Cushionable mass [kg]



## 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.

