Mini cylinder, Series MNI

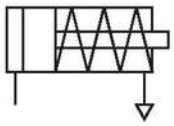
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AVENTICS
Series
MNI Mini
cylinders
(ISO 6432)

AVENTICS Series MNI Mini cylinders (ISO 6432)

The AVENTICS Series MNI (ISO 6432) round cylinders for general machine construction are characterized by its robust and long service life.





Technical data

Industry	Industrial
Standards	ISO 6432
Piston Ø	12 mm
Stroke	50 mm
Ports	M5
Functional principle	Single-acting, retracted without pressure
Cushioning	Elastic cushioning
Magnetic piston	Piston without magnet
Environmental requirements	Industry standard
Piston rod thread - type	External thread
Piston rod thread	M6
Piston rod	single
Scraper	Standard Industry Scraper
Pressure for determining piston forces	6,3 bar
Extracting piston force	60.2 N
Min. ambient temperature	-25 °C
Max. ambient temperature	80 °C
Min. working pressure	2 bar
Max. working pressure	10 bar
Min. spring force	6.7 N
Max. spring force	11 N
Impact energy	0.07 J
Weight	0.09 kg
Weight 0 mm stroke	0.06 kg

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Weight +10 mm stroke	0.006 kg
Stroke max.	50 mm
Medium	Compressed air
Min. medium temperature	-25 °C
Max. medium temperature	80 °C
Max. particle size	50 µm
Min. oil content of compressed air	0 mg/m³
Max. oil content of compressed air	5 mg/m³

Material

Piston rod	Stainless Steel
Piston material	Brass Aluminum
Scraper material	Polyurethane
Seal material	Acrylonitrile butadiene rubber Polyurethane
Material, front cover	Aluminum
Cylinder tube	Stainless Steel
End cover	Aluminum
Nut for cylinder mounting	Steel, chrome-plated
Nut for piston rod	Steel, chrome-plated
Part No.	0822431203

Technical information

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

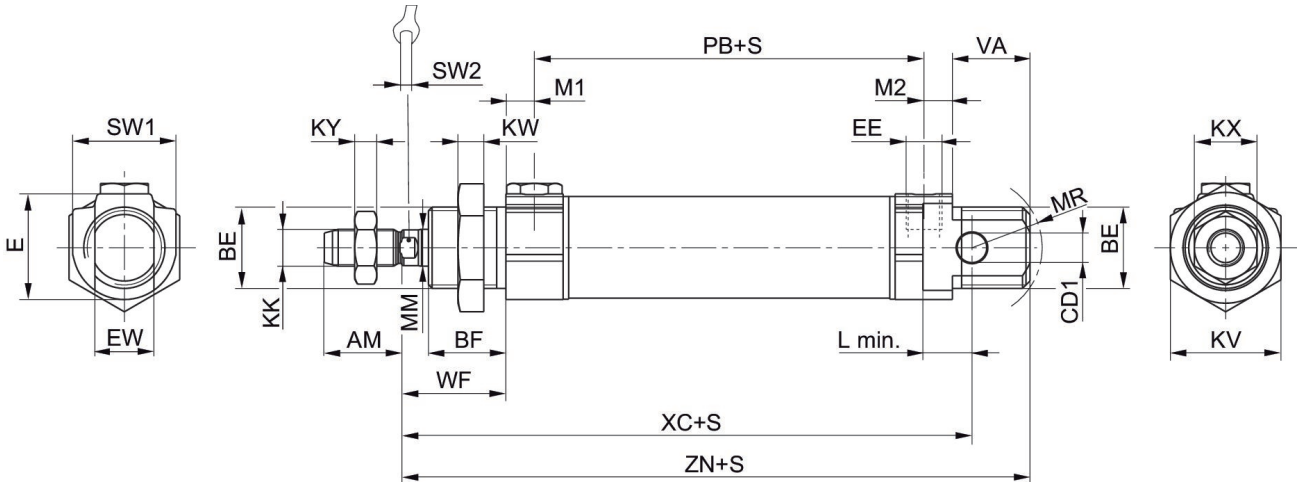
The oil content of compressed air must remain constant during the life cycle.

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



S = stroke
X = vent screw

Piston Ø	AM-2	BE	BF	CD1 H9	E	EE t = depth of thread	EW d13	KK	KV
10	12	M12x1,25	11	4	14	M5 t=5	8	M4	17
12	16	M16x1,5	16	6	19	M5 t=5	12	M6	22
16	16	M16x1,5	16	6	19	M5 t=5	12	M6	22
20	20	M22x1,5	18	8	28	G1/8 t=8	16	M8	30
25	22	M22x1,5	21	8	28	G1/8 t=8	16	M10x1,25	30

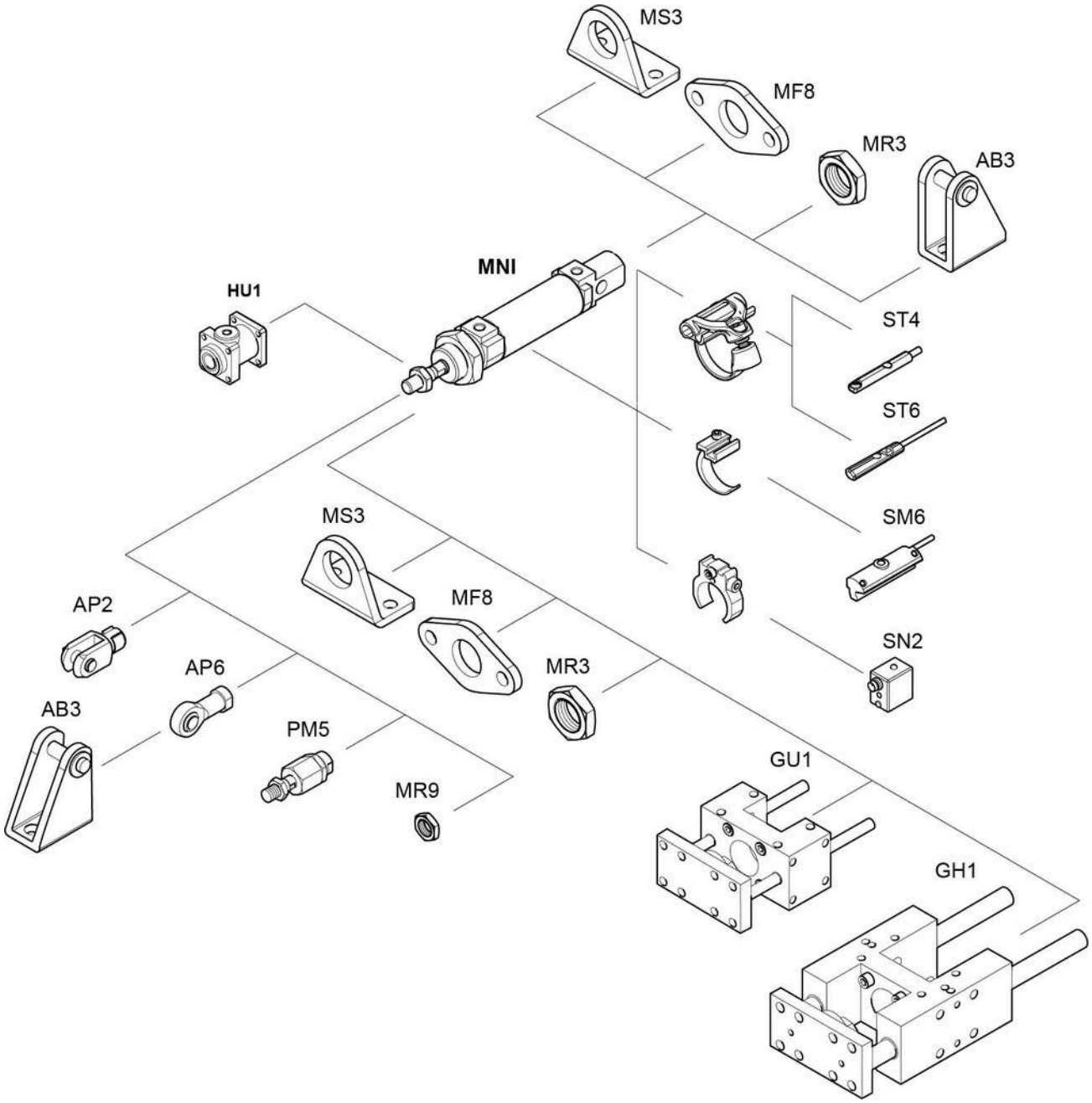
Piston Ø	KW	KX	KY	L min	MM f8	M1/M2	MR	PB ±1	VA
10	5.5	7	2.2	6	4	4.8	12	37	11
12	6	10	3.2	8	6	4.8	16	41	16
16	6	10	3.2	8	6	4.8	16	47	17
20	7	13	4	12	8	7	18	51	19
25	7	17	6	12	10	7	19	55	21

Piston Ø	WF ±1,4	XC ±1	ZN ± 1,4	SW 1	SW 2
10	16	64	73.5	13	3
12	22	75	88.5	19	5
16	22	82	95.5	19	5
20	24	95	109.5	28	6
25	28	104	119.5	28	8

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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.