**R480627627** 2024-04-05

# **AVENTICS Series ITS Tie rod cylinders** (ISO 15552)

The AVENTICS Series ITS (ISO 15552) cylinders are often chosen when extremely large loads need to be moved efficiently and under control with the familiar ease of operation. The Series ITS (ISO 15552) cylinders are easily configurable to your application needs.





#### Technical data

 Industry
 Industrial

 Standards
 ISO 15552

 Piston Ø
 160 mm

 Stroke
 320 mm

 Ports
 G 3/4

Functional principle Double-acting

Cushioning Pneumatic adjustable cushioning

Magnetic piston Piston with magnet
Environmental requirements Industry standard
Heat resistant

Piston rod thread - type External thread

Piston rod thread M36x2
Piston rod single

Scraper Heat-Resistant Scraper

Pressure for determining piston forces 6,3 bar
Retracting piston force 11875 N
Extracting piston force 12667 N
Min. ambient temperature -10 °C
Max. ambient temperature 120 °C
Min. working pressure 2 bar

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Max. working pressure 10 bar
Cushioning length 46 mm
Cushioning energy 160 J
Weight 0 mm stroke 12.5 kg
Weight +10 mm stroke 0.21 kg
Stroke max. 2700 mm

Medium Compressed air

 $\begin{array}{lll} \mbox{Min. medium temperature} & -10 \ ^{\circ}\mbox{C} \\ \mbox{Max. medium temperature} & 120 \ ^{\circ}\mbox{C} \\ \mbox{Max. particle size} & 50 \ \mu\mbox{m} \\ \mbox{Min. oil content of compressed air} & 0 \ \mbox{mg/m}^{3} \\ \mbox{Max. oil content of compressed air} & 5 \ \mbox{mg/m}^{3} \end{array}$ 

#### Material

Piston rod Stainless Steel
Scraper material Fluorocaoutchouc
Material tie-rod Stainless Steel
Seal material Fluorocaoutchouc
Material, front cover Die-cast aluminum

Cylinder tube Aluminum

End cover Die-cast aluminum

Nut for piston rod Steel, chrome-plated

Part No. R480627627

#### Technical information

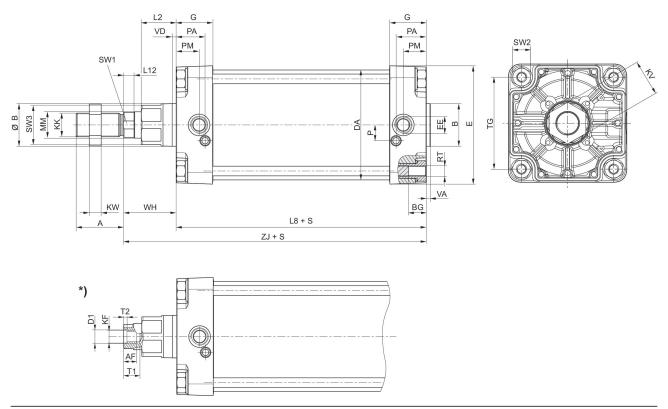
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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**



Piston Ø	А		ØB	BG	DA		EE	G	KK
160	72	65	65	24	167	180	G 3/4	56	M36x2
200	72	75	75	24	210	220	G 3/4	54	M36x2
250	84	90	90	25	262	280	G 1	59.5	M42x2
320	96	110	110	28	336	350	G 1	61.5	M48x2

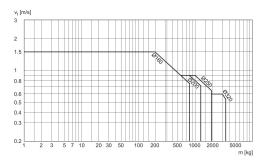
Piston Ø	KV	KW	L2	L8	L12	MM		PA	PM
160	55	18	53	180	16	40	24	45	35
200	55	18	56	180	16	40	22.5	42	30
250	65	21	67	200	20	50	29	46	32.8
320	75	24	76	220	23.25	63	30	48	37

Piston Ø	RT	SW1	SW2	SW3	TG	VA	VD	WH	ZJ
160	M16	36	27	60	140	6	6	80	260
200	M16	36	27	60	175	6	6	95	275
250	M20	46	41	80	220	10	31	105	305.3
320	M24	55	50	95	270	10	34	120	340.5

S = stroke
\*) For cylinders with optional piston road with internal thread

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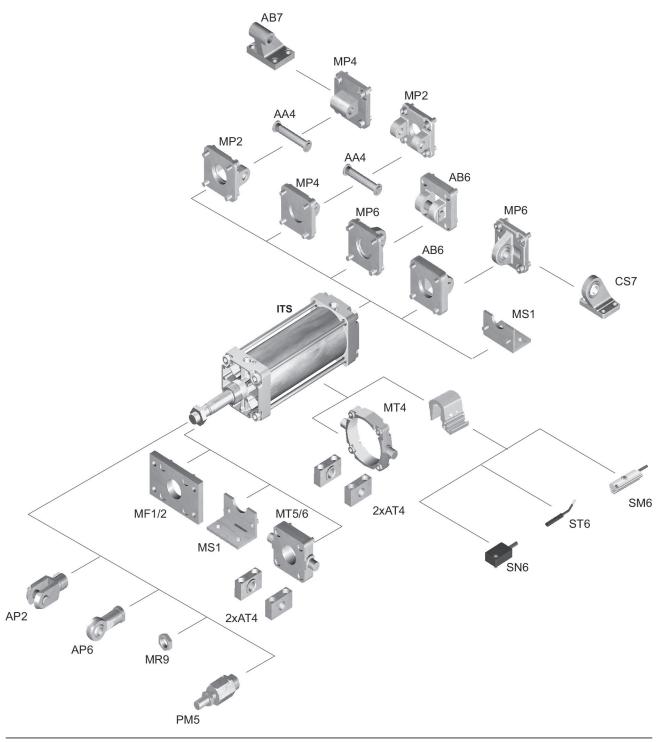
## Cushioning diagram



v<sub>t</sub> = Piston velocity [m/s] m = Cushionable mass [kg]

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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.