R480627526 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 320 mm 100 mm Stroke **Ports** G 1

Functional principle Double-acting

Pneumatic adjustable cushioning Cushioning

Magnetic piston Piston without magnet

Environmental requirements Industry standard ATEX optional

External thread Piston rod thread - type

Piston rod thread M48x2 Piston rod single

Cylinder special features with trunnion mounting Scraper Standard Industry Scraper

Pressure for determining piston forces 6,3 bar Retracting piston force 48704 N Extracting piston force 50668 N Min. ambient temperature -20 °C 80°C Max. ambient temperature

series ITS

Tie rod cylinder ISO 15552, Series ITS

R480627526 2024-04-05

Min. working pressure 2 bar

Max. working pressure 10 bar

Cushioning length 56 mm

Cushioning energy 190 J

Weight 0 mm stroke 82.49 kg

Weight +10 mm stroke 0.61 kg

Stroke max. 2500 mm

Medium Compressed air

Min. medium temperature-20 °CMax. medium temperature80 °CMax. particle size50 μmMin. oil content of compressed air0 mg/m³Max. oil content of compressed air5 mg/m³

Material

Piston rod Stainless Steel

Scraper material Acrylonitrile butadiene rubber

Material tie-rod Stainless Steel

Seal material Acrylonitrile butadiene rubber

Material, front cover Die-cast aluminum

Cylinder tube Aluminum

End cover Die-cast aluminum

Nut for piston rod Steel, chrome-plated

Trunnion mounting Nodular graphite iron

Part No. R480627526

Technical information

The trunnion mounting is positioned in the center at the factory and can be adjusted later.

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.

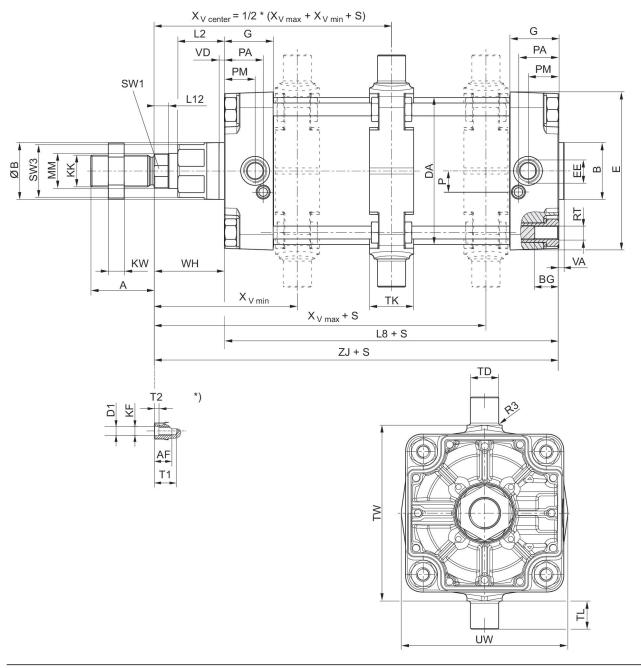
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

R480627526 2024-04-05

Dimensions



S = stroke

 $[\]ensuremath{^{\star}}\xspace)$ For cylinders with optional piston road with internal thread

Piston Ø	А	В	ØB	BG	DA	Е	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

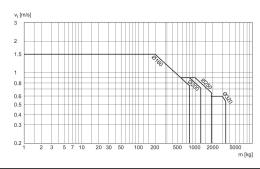
R480627526 2024-04-05

Piston Ø	KV	KW	L2	L8	L12	MM	Р	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	R3	RT	SW1	SW2	SW3	TD e9	TG	TK	TL h14
160	2.5	M16	36	27	60	32	140	50	32
200	2.5	M16	36	27	60	32	175	50	32
250	3	M20	46	41	80	40	220	60	40
320	3.2	M24	55	50	95	50	270	70	50

Piston Ø	TW h14	UW	VD	WH	XV min	XV max	ZJ
160	200	190	6	80	163	177	260
200	250	240	6	95	177	193	275
250	320	310	31	105	195	215	305.3
320	400	400	34	120	228	233	340.5

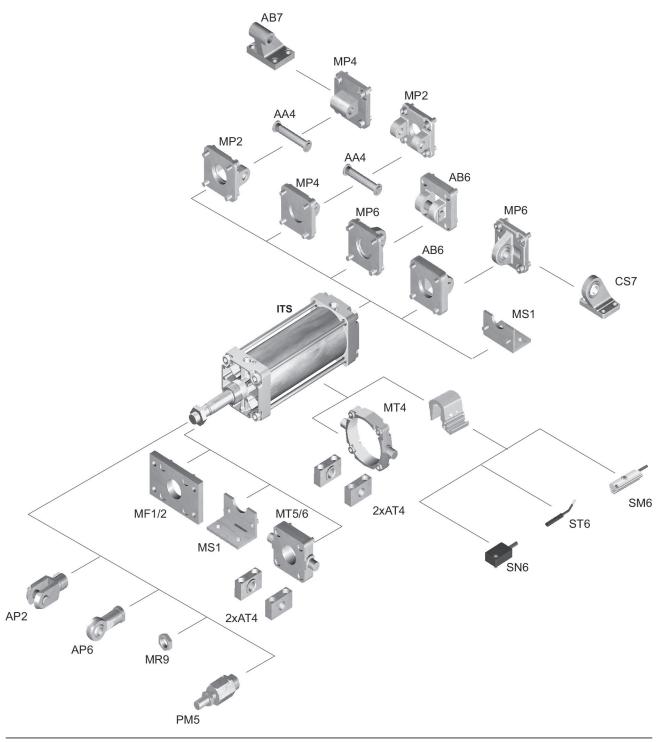
Cushioning diagram



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

R480627526 2024-04-05

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.