R480627428 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
 250 mm

 Stroke
 50 mm

 Ports
 G 1

Functional principle Double-acting

Cushioning Pneumatic adjustable cushioning

Magnetic piston Piston without magnet Environmental requirements Industry standard

ATEX optional

Piston rod thread - type External thread

Piston rod thread M42x2
Piston rod single

Scraper Standard Industry Scraper

Pressure for determining piston forces 6,3 bar
Retracting piston force 29688 N
Extracting piston force 30925 N
Min. ambient temperature -20 °C
Max. ambient temperature 80 °C
Min. working pressure 2 bar

series ITS

Tie rod cylinder ISO 15552, Series ITS

R480627428 2024-04-05

Max. working pressure10 barCushioning length56 mmCushioning energy180 JWeight 0 mm stroke25.87 kgWeight +10 mm stroke0.38 kgStroke max.2500 mm

Medium Compressed air

Min. medium temperature -20 °C Max. medium temperature 80 °C Max. particle size 50 μ m Min. oil content of compressed air 0 mg/m³ Max. oil content of compressed air 5 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

Part No. R480627428

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.

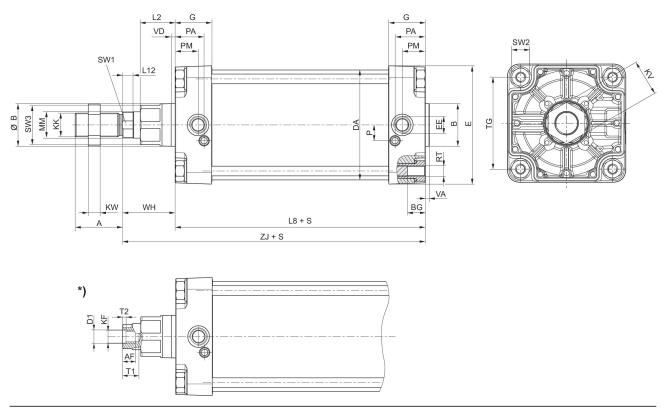
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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).

R480627428 2024-04-05

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 |

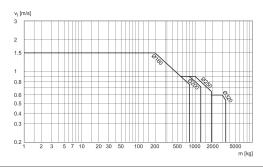
| Piston Ø | KV | KW | L2 | L8 | L12 | MM | | PA | PM |
|----------|----|----|----|-----|-------|----|------|----|------|
| 160 | 55 | 18 | 53 | 180 | 16 | 40 | 24 | 45 | 35 |
| 200 | 55 | 18 | 56 | 180 | 16 | 40 | 22.5 | 42 | 30 |
| 250 | 65 | 21 | 67 | 200 | 20 | 50 | 29 | 46 | 32.8 |
| 320 | 75 |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

R480627428 2024-04-05

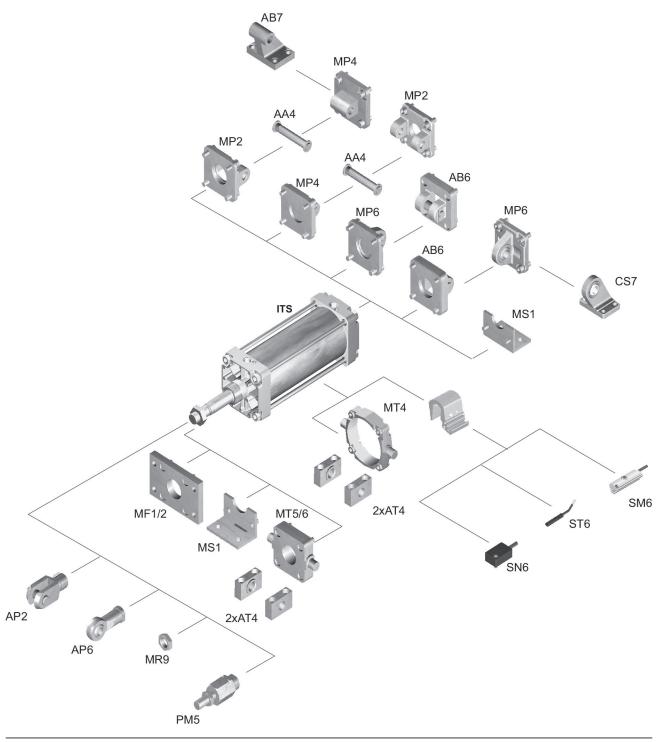
Cushioning diagram



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

R480627428 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.