**R480627482** 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
 250 mm

 Ports
 G 1

Functional principle Double-acting

Cushioning Pneumatic adjustable cushioning

Magnetic piston Piston without magnet Environmental requirements Industry standard

Heat resistant

Piston rod thread - type External thread

Piston rod thread M42x2
Piston rod single

Scraper Heat-Resistant Scraper

Pressure for determining piston forces 6,3 bar
Retracting piston force 29688 N
Extracting piston force 30925 N
Min. ambient temperature -10 °C
Max. ambient temperature 150 °C
Min. working pressure 2 bar

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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-10 °CMax. medium temperature150 °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 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. R480627482

#### Technical information

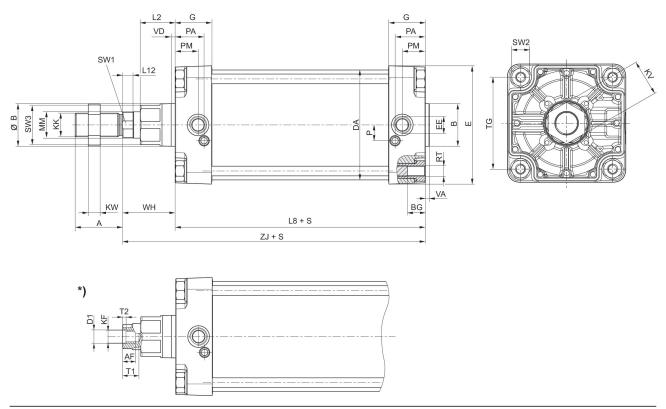
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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 |

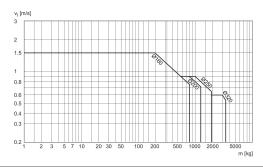
| Piston Ø | KV | KW | L2 | L8  | L12   | MM |      | PA | PM   |
|----------|----|----|----|-----|-------|----|------|----|------|
| 160      | 55 | 18 | 53 | 180 | 16    | 40 | 24   | 45 | 35   |
| 200      | 55 | 18 | 56 | 180 | 16    | 40 | 22.5 | 42 | 30   |
| 250      | 65 | 21 | 67 | 200 | 20    | 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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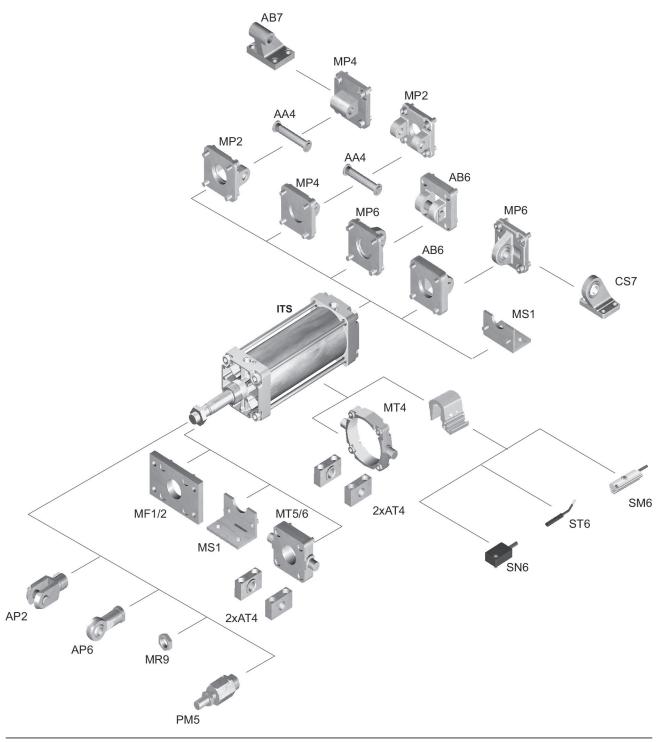
## Cushioning diagram



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.