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### **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 80 mm Stroke **Ports** G 1

Functional principle Double-acting

Pneumatic adjustable cushioning Cushioning

Magnetic piston Piston with magnet **Environmental requirements** Industry standard Heat resistant

External thread Piston rod thread - type

Piston rod thread M42x2 Piston rod single

Heat-Resistant Scraper Scraper

Pressure for determining piston forces 6,3 bar Retracting piston force 29688 N 30925 N Extracting piston force -10 °C Min. ambient temperature 120 °C Max. ambient temperature 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  $-10~^{\circ}\text{C}$ Max. medium temperature  $120~^{\circ}\text{C}$ Max. particle size  $50~\mu\text{m}$ Min. oil content of compressed air  $0~\text{mg/m}^{3}$ Max. oil content of compressed air  $5~\text{mg/m}^{3}$ 

### 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. R480627645

#### Technical information

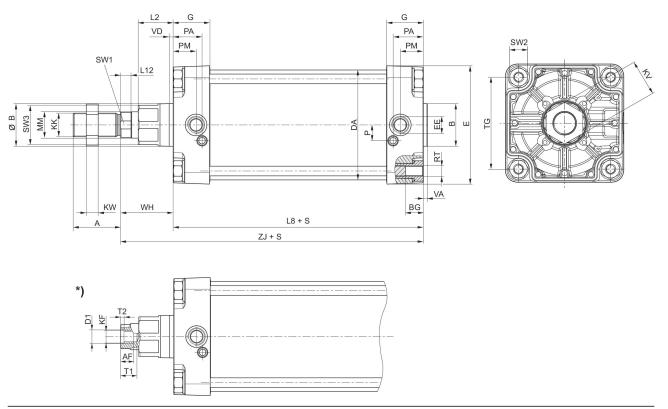
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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 |

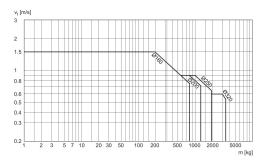
| Piston Ø | KV | KW | L2 | L8  | L12   | MM | Р    | PA | PM   |
|----------|----|----|----|-----|-------|----|------|----|------|
| 160      | 55 | 18 | 53 | 180 | 16    | 40 | 24   | 45 | 35   |
| 200      | 55 | 18 | 56 | 180 | 16    | 40 | 22.5 | 42 | 30   |
| 250      | 65 | 21 | 67 | 200 | 20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

| Piston Ø | 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

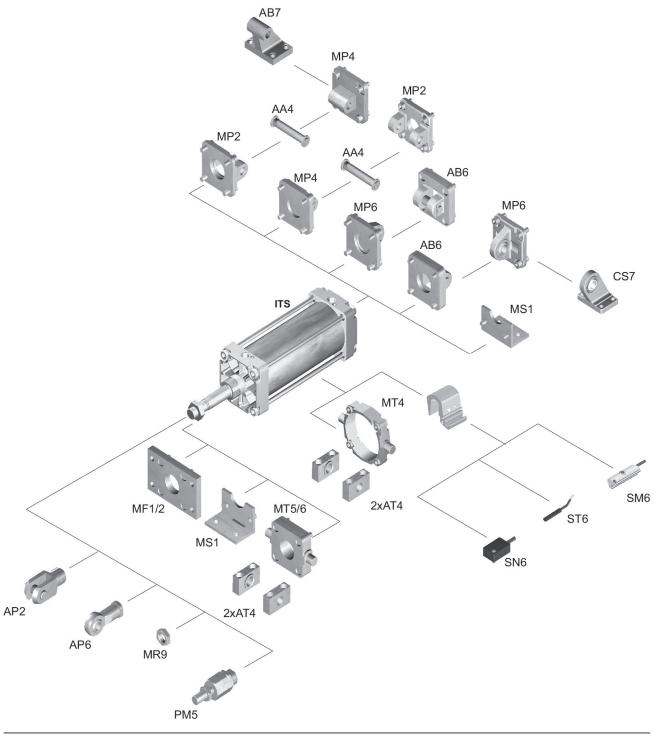


v<sub>t</sub> = Piston velocity [m/s] m = Cushionable mass [kg]



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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.