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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 200 mm 500 mm Stroke **Ports** G 3/4

Functional principle Double-acting

Pneumatic adjustable cushioning Cushioning

Magnetic piston Piston with magnet **Environmental requirements** Industry standard cold-resistant

External thread Piston rod thread - type

Piston rod thread M36x2 Piston rod single

Cold-Resistant Scraper Scraper

Pressure for determining piston forces 6,3 bar Retracting piston force 19000 N 19792 N Extracting piston force -40 °C Min. ambient temperature 70 °C Max. ambient temperature Min. working pressure 2 bar

series ITS

Tie rod cylinder ISO 15552, Series ITS

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Max. working pressure10 barCushioning length46 mmCushioning energy170 JWeight 0 mm stroke15.67 kgWeight +10 mm stroke0.21 kgStroke max.2700 mm

Medium Compressed air

Min. medium temperature $-40 \,^{\circ}\text{C}$ Max. medium temperature $70 \,^{\circ}\text{C}$ Max. particle size $50 \, \mu\text{m}$ Min. oil content of compressed air $0 \, \text{mg/m}^3$ Max. oil content of compressed air $5 \, \text{mg/m}^3$

Clamping piece for magnetic field sensor Clamping piece for magnetic field sensor

necessary necessary

Material

Piston rod Stainless Steel Scraper material Polyurethane

metal

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. R481604660

Technical information

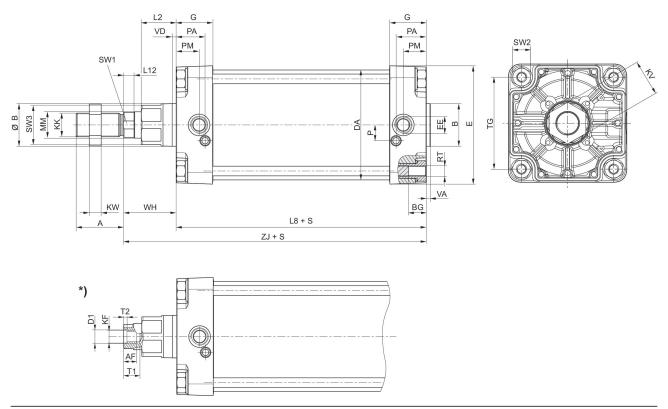
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

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 | AF | | ØB | BG | D1 | DA | | EE |
|----------|----|----|-----|-----|----|----|-----|-----|-------|
| 160 | 72 | 36 | 65 | 65 | 24 | 25 | 167 | 180 | G 3/4 |
| 200 | 72 | 36 | 75 | 75 | 24 | 25 | 210 | 220 | G 3/4 |
| 250 | 84 | 50 | 90 | 90 | 25 | 31 | 262 | 280 | G 1 |
| 320 | 96 | 55 | 110 | 110 | 28 | 37 | 336 | 350 | G 1 |

| Piston Ø | G | KF | KK | KV | KW | L2 | L8 | L12 | MM |
|----------|------|-----|-------|----|----|----|-----|-------|----|
| 160 | 56 | M24 | M36x2 | 55 | 18 | 53 | 180 | 16 | 40 |
| 200 | 54 | M24 | M36x2 | 55 | 18 | 56 | 180 | 16 | 40 |
| 250 | 59.5 | M30 | M42x2 | 65 | 21 | 67 | 200 | 20 | 50 |
| 320 | 61.5 | M36 | M48x2 | 75 | 24 | 76 | 220 | 23.25 | 63 |

| Piston Ø | Р | PA | PM | RT | SW1 | SW2 | SW3 | T1 | T2 |
|----------|------|----|------|-----|-----|-----|-----|----|----|
| 160 | 24 | 45 | 35 | M16 | 36 | 27 | 60 | 40 | 10 |
| 200 | 22.5 | 42 | 30 | M16 | 36 | 27 | 60 | 40 | 10 |
| 250 | 29 | 46 | 32.8 | M20 | 46 | 41 | 80 | 60 | 10 |
| 320 | 30 | 48 | 37 | M24 | 55 | 50 | 95 | 65 | 13 |

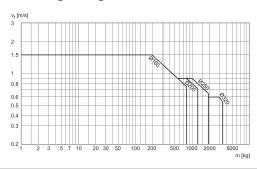
| Piston Ø | TG | VA | VD | WH | ZJ |
|----------|-----|----|----|----|-----|
| 160 | 140 | 6 | 6 | 80 | 260 |

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

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| Piston Ø | TG | VA | VD | WH | ZJ |
|----------|-----|----|----|-----|-------|
| 200 | 175 | 6 | 6 | 95 | 275 |
| 250 | 220 | 10 | 31 | 105 | 305.3 |
| 320 | 270 | 10 | 34 | 120 | 340.5 |

Cushioning diagram



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

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