

## 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                              |
| Stroke                                 | 50 mm                               |
| Ports                                  | G 3/4                               |
| Functional principle                   | Double-acting                       |
| Cushioning                             | Pneumatic adjustable cushioning     |
| Magnetic piston                        | Piston with magnet                  |
| Environmental requirements             | Industry standard<br>Heat resistant |
| Piston rod thread - type               | External thread                     |
| Piston rod thread                      | M36x2                               |
| Piston rod                             | single                              |
| Scraper                                | Heat-Resistant Scraper              |
| Pressure for determining piston forces | 6,3 bar                             |
| Retracting piston force                | 19000 N                             |
| Extracting piston force                | 19792 N                             |
| Min. ambient temperature               | -10 °C                              |
| Max. ambient temperature               | 120 °C                              |
| Min. working pressure                  | 2 bar                               |

# Tie rod cylinder ISO 15552, Series ITS

R480627632

Series ITS

2025-08-05

|                                    |                     |
|------------------------------------|---------------------|
| Max. working pressure              | 10 bar              |
| Cushioning length                  | 46 mm               |
| Cushioning energy                  | 170 J               |
| Weight 0 mm stroke                 | 15.67 kg            |
| Weight +10 mm stroke               | 0.21 kg             |
| Stroke max.                        | 2700 mm             |
| Medium                             | Compressed air      |
| Min. medium temperature            | -10 °C              |
| Max. medium temperature            | 120 °C              |
| Max. particle size                 | 50 µm               |
| Min. oil content of compressed air | 0 mg/m <sup>3</sup> |
| Max. oil content of compressed air | 5 mg/m <sup>3</sup> |

## 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.              | R480627632           |

## 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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## 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.

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## Dimensions



S = stroke

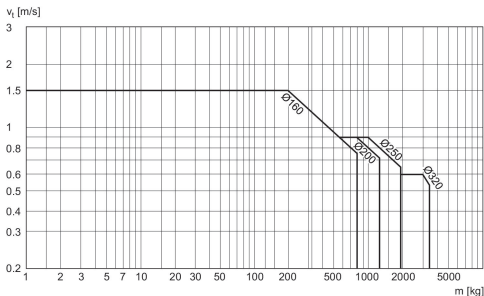
\*) For cylinders with optional piston rod with internal thread

| Piston Ø | A  | B   | ØB  | BG | DA  | E   | EE    | G    | KK    | KV |
|----------|----|-----|-----|----|-----|-----|-------|------|-------|----|
| 160      | 72 | 65  | 65  | 24 | 167 | 180 | G 3/4 | 56   | M36x2 | 55 |
| 200      | 72 | 75  | 75  | 24 | 210 | 220 | G 3/4 | 54   | M36x2 | 55 |
| 250      | 84 | 90  | 90  | 25 | 262 | 280 | G 1   | 59.5 | M42x2 | 65 |
| 320      | 96 | 110 | 110 | 28 | 336 | 350 | G 1   | 61.5 | M48x2 | 75 |

| Piston Ø | KW | L2 | L8  | L12   | MM | P    | PA | PM   | RT  | SW1 |
|----------|----|----|-----|-------|----|------|----|------|-----|-----|
| 160      | 18 | 53 | 180 | 16    | 40 | 24   | 45 | 35   | M16 | 36  |
| 200      | 18 | 56 | 180 | 16    | 40 | 22.5 | 42 | 30   | M16 | 36  |
| 250      | 21 | 67 | 200 | 20    | 50 | 29   | 46 | 32.8 | M20 | 46  |
| 320      | 24 | 76 | 220 | 23.25 | 63 | 30   | 48 | 37   | M24 | 55  |

| Piston Ø | SW2 | SW3 | TG  | VA | VD | WH  | ZJ    |
|----------|-----|-----|-----|----|----|-----|-------|
| 160      | 27  | 60  | 140 | 6  | 6  | 80  | 260   |
| 200      | 27  | 60  | 175 | 6  | 6  | 95  | 275   |
| 250      | 41  | 80  | 220 | 10 | 31 | 105 | 305.3 |
| 320      | 50  | 95  | 270 | 10 | 34 | 120 | 340.5 |

Cushioning diagram



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