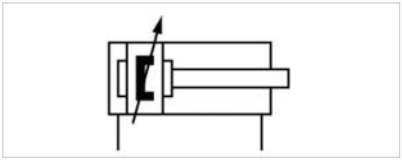
AVENTICS

# Profile cylinder ISO 15552, Series PRA - inch

- Ø 32-125 mm
- Ports 1/8 NPT, 1/4 NPT, 3/8 NPT, 1/2 NPT
- double-acting
- with magnetic piston
- Cushioning pneumatically, pneumatically, adjustable
- Piston rod External thread



| | |
|---|---|
| Compressed air connection | Internal thread |
| Ambient temperature min./max. | -20 ... 80 °C |
| Medium temperature min./max. | -20 ... 80 °C |
| Medium | Compressed air |
| Max. particle size | 50 µm |
| Oil content of compressed air | 0 ... 5 mg/m³ |
| Pressure for determining piston forces | 6.3 bar |

## Technical data

| Piston Ø<br>Piston rod thread<br>Ports<br>Piston rod Ø | 32 mm<br>7/16-20 UNF<br>1/8 NPT<br>12 mm | 40 mm<br>1/2-20 UNF<br>1/4 NPT<br>16 mm | 50 mm<br>3/4-16 UNF<br>1/4 NPT<br>20 mm | 63 mm<br>3/4-16 UNF<br>3/8 NPT<br>20 mm | 80 mm<br>3/4-16 UNF<br>3/8 NPT<br>25 mm | 100 mm<br>3/4-16 UNF<br>1/2 NPT<br>25 mm | 125 mm<br>1-14 UNF<br>1/2 NPT<br>32 mm |
|---|---|---|---|---|---|---|---|
| Stroke 25.4 | R480176154 | R480176238 | R480176328 | R480176417 | R480176506 | R480176593 | R480176685 |
| 50.8 | R480176162 | R480176251 | R480176334 | R480176427 | R480176510 | R480176601 | R480176689 |
| 76.2 | R480176169 | R480176257 | R480176345 | R480176437 | R480176523 | R480176609 | R480176694 |
| 101.6 | R480176174 | R480176263 | R480176354 | R480176441 | R480176526 | R480176614 | R480176707 |
| 127 | R480176187 | R480176275 | R480176363 | R480176452 | R480176534 | R480176626 | R480176712 |
| 152.4 | R480176190 | R480176280 | R480176370 | R480176459 | R480176546 | R480176633 | R480176721 |
| 177.8 | R480176201 | R480176293 | R480176377 | R480176464 | R480176554 | R480176641 | R480176729 |
| 203.2 | R480176209 | R480176298 | R480176383 | R480176472 | R480176561 | R480176646 | R480176736 |
| 228.6 | R480176218 | R480176304 | R480176395 | R480176480 | R480176567 | R480176660 | R480176746 |
| 254 | R480176228 | R480176316 | R480176400 | R480176490 | R480176581 | R480176665 | R480176754 |
| 304.8 | R480176232 | R480176321 | R480176412 | R480176500 | R480176585 | R480176676 | R480176761 |

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## Technical data

| Piston Ø | 32 mm | 40 mm | 50 mm | 63 mm | 80 mm | 100 mm | 125 mm |
|---|---|---|---|---|---|---|---|
| Retracting piston force | 435 N | 660 N | 1035 N | 1765 N | 2855 N | 4635 N | 7220 N |
| Extracting piston force | 505 N | 790 N | 1235 N | 1960 N | 3165 N | 4945 N | 7725 N |
| Cushioning length | 16,5 mm | 19 mm | 17 mm | 16,5 mm | 19,5 mm | 19,5 mm | 22 mm |
| Cushioning energy | 4,8 J | 9 J | 15 J | 27 J | 54 J | 88 J | 140 J |
| Weight 0 mm stroke | 0,5 kg | 0,65 kg | 1,06 kg | 1,42 kg | 2,37 kg | 3,51 kg | 6,72 kg |
| Weight +10 mm stroke | 0,022 kg | 0,032 kg | 0,047 kg | 0,054 kg | 0,085 kg | 0,1 kg | 0,15 kg |
| Stroke max. | 1600 mm | 1900 mm | 2100 mm | 2500 mm | 2800 mm | 2800 mm | 2750 mm |
| Working pressure min./max. | 2 ... 10 bar | 2 ... 10 bar | 2 ... 10 bar | 2 ... 10 bar | 2 ... 10 bar | 2 ... 10 bar | 2 ... 10 bar |

Cushioning diagram see "Technical Information" manual

## Technical information

The pressure dew point must be at least 15 °C under 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 the MediaCentre).

## Technical information

| Material | |
|---|---|
| Cylinder tube | Aluminum, anodized |
| Piston rod | Stainless steel |
| Front cover | Die-cast aluminum |
| End cover | Die-cast aluminum |
| Seal | Polyurethane |
| Nut for piston rod | Steel, galvanized |
| Scraper | Polyurethane |

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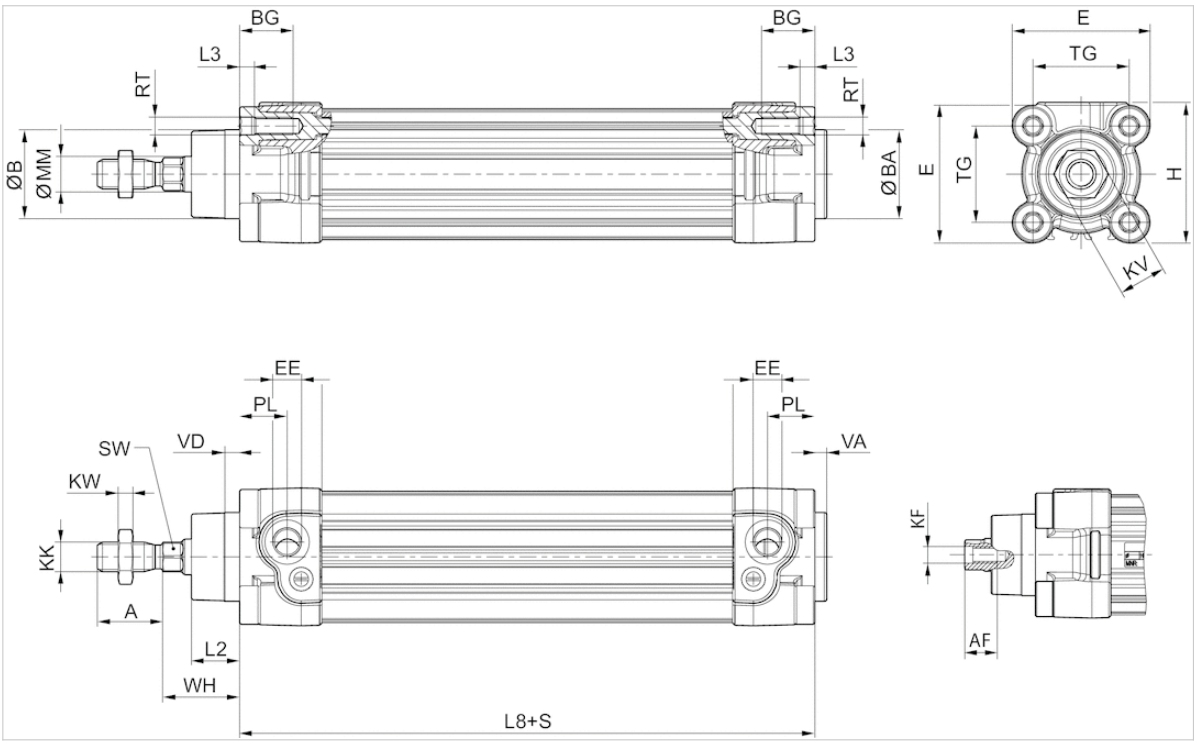
# Dimensions

## Dimensions




S = stroke

## Dimensions

| Piston Ø | A -2 | ØB d11 | ØBA d11 | BG min. | E | EE inch | EE | H | KK inch | KK | KV | KW | ØMM f8 | PL | L2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32 mm | 22 | 30 | 30 | 16 | 46.5 | 1/8 NPT | G 1/8 | 47.5 | 7/16 - 20 UNF | M10x1,25 | 16 | 5 | 12 | 16 | 16.25 |
| 40 mm | 24 | 35 | 35 | 16 | 53 | 1/4 NPT | G 1/4 | 53 | 1/2 - 20 UNF | M12x1,25 | 18 | 6 | 16 | 20 | 18.25 |
| 50 mm | 32 | 40 | 40 | 16 | 65 | 1/4 NPT | G 1/4 | 65 | 3/4 - 16 UNF | M16x1,5 | 24 | 8 | 20 | 19 | 25 |
| 63 mm | 32 | 45 | 45 | 16 | 75 | 3/8 NPT | G 3/8 | 75 | 3/4 - 16 UNF | M16x1,5 | 24 | 8 | 20 | 24 | 25 |
| 80 mm | 40 | 45 | 45 | 17 | 95 | 3/8 NPT | G 3/8 | 95 | 3/4 - 16 UNF | M20x1,5 | 30 | 10 | 25 | 23.5 | 33 |
| 100 mm | 40 | 55 | 55 | 17 | 115 | 1/2 NPT | G 1/2 | 115 | 3/4 - 16 UNF | M20x1,5 | 30 | 10 | 25 | 25 | 36 |
| 125 mm | 54 | 60 | 60 | 20 | 140 | 1/2 NPT | G 1/2 | 140 | 1 - 14 UNF | M27x2 | 41 | 13.5 | 32 | 33 | 45 |

| L3 ±0,5 | L8 | RT | SW | TG | VA -1 | VD | WH |
|---|---|---|---|---|---|---|---|
| 4.5 | 94±0,4 | M6 | 10 | 32,5±0,5 | 4 | 5 | 26±1,4 |
| 4.5 | 105±0,7 | M6 | 13 | 38±0,5 | 4 | 5 | 30±1,4 |
| 4.5 | 106±0,7 | M8 | 17 | 46,5±0,6 | 4 | 5 | 37±1,4 |
| 4.5 | 121±0,8 | M8 | 17 | 56,5±0,7 | 4 | 5 | 37±1,8 |
| 0 | 128±0,8 | M10 | 22 | 72±0,7 | 4 | 5 | 46±1,8 |
| 0 | 138±1 | M10 | 22 | 89±0,7 | 4 | 5 | 51±1,8 |
| 0 | 160±1 | M12 | 27 | 110±1,1 | 6 | 7 | 65±2,2 |

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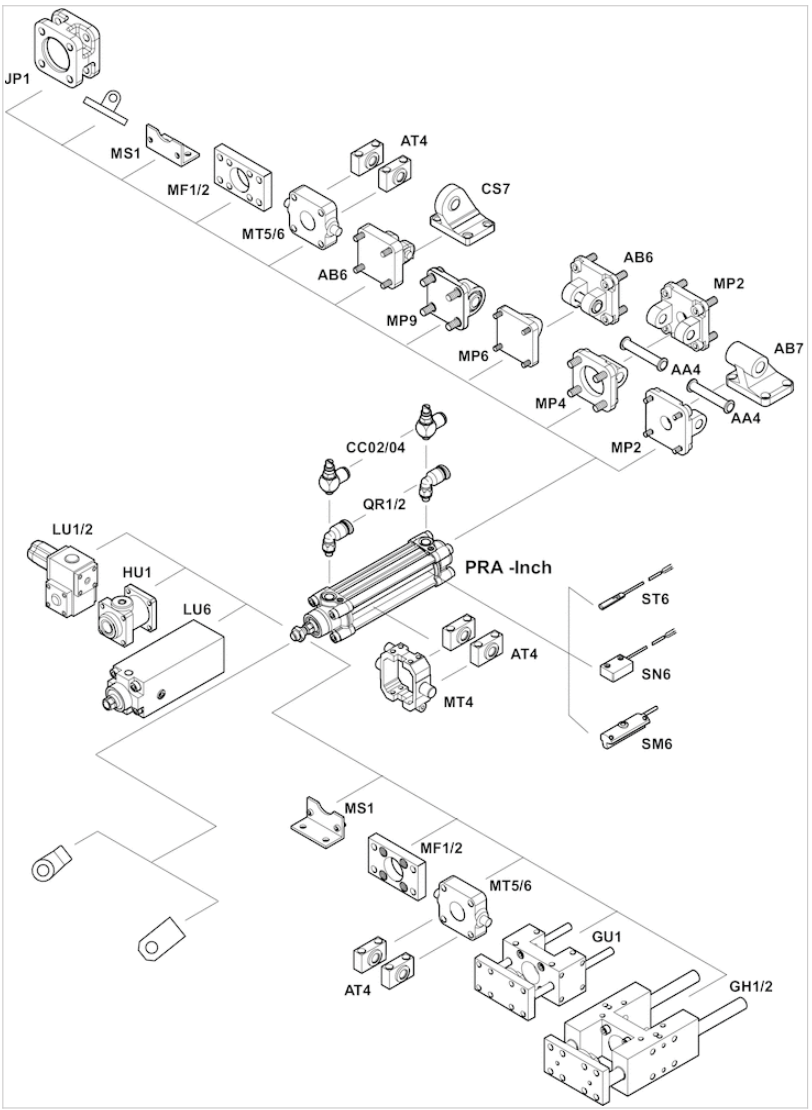
# Accessories overview

## 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.