

- fine thread
- Piston rod: external thread
- Single-acting, retracted without pressure

## AVENTICS Series 102 Diaphragm type cylinder

The AVENTICS Series 102 is cost-efficient solution to generate high forces for press application for example.



### Technical data

|  |   |
|--|---|
| Industry                               | Industrial                                |
| Piston Ø                               | 250 mm                                    |
| Stroke                                 | 100 mm                                    |
| Ports                                  | G 1/2                                     |
| Functional principle                   | Single-acting, retracted without pressure |
| Piston rod thread - type               | External thread                           |
| Piston rod thread                      | M24x2                                     |
| Pressure for determining piston forces | 6 bar                                     |
| Extracting piston force                | 25000 N                                   |
| Min. ambient temperature               | -20 °C                                    |
| Max. ambient temperature               | 70 °C                                     |
| Min. working pressure                  | 2 bar                                     |
| Max. working pressure                  | 8 bar                                     |
| Min. spring force                      | 900 N                                     |
| Max. spring force                      | 2750 N                                    |
| Weight                                 | 22.2 kg                                   |
| Medium                                 | Compressed air                            |
| Min. medium temperature                | -20 °C                                    |
| Max. medium temperature                | 70 °C                                     |

# Piston rod cylinders, Series 102

Series 102

1022300000

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|                                    |                     |
|------------------------------------|---------------------|
| 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            | Steel, chrome-plated           |
| Seal material         | Acrylonitrile butadiene rubber |
| Material, front cover | Steel, chrome-plated           |
| Cylinder tube         | Steel, chrome-plated           |
| Part No.              | 1022300000                     |

## Technical information

Tolerance at 40 mm, 50 mm, 80 mm stroke: ± 3 mm

Tolerance at 100 mm stroke: + 6 mm / -1 mm

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>).

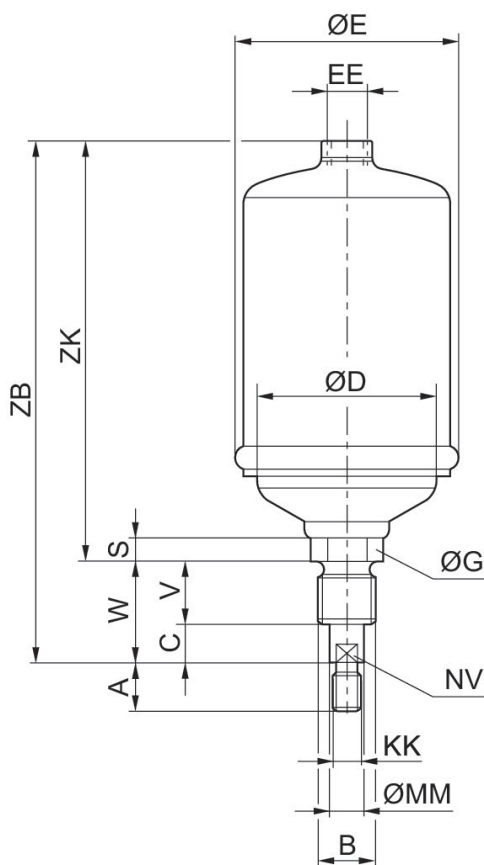
## Dimensions

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| Part No.   | Piston $\varnothing$ | A  | B     | C  | D  | E   | G  | S  | V  |
|------------|----------------------|----|-------|----|----|-----|----|----|----|
| 1022100000 | 60                   | 24 | M 24  | 11 | 54 | 66  | 30 | 18 | 30 |
| 1022200000 | 85                   | 24 | M24   | 11 | 77 | 93  | 30 | 18 | 30 |
| 1022300000 | 250                  | 48 | M48x3 | 20 | 56 | 268 | 50 | 33 | 40 |

| Part No.   | Piston $\varnothing$ | W  | EE    | KK       | MM | NV | ZB  | ZK  |
|------------|----------------------|----|-------|----------|----|----|-----|-----|
| 1022100000 | 60                   | 41 | G 1/4 | M12x1.25 | 14 | 12 | 222 | 181 |
| 1022200000 | 85                   | 41 | G 1/4 | M12x1.25 | 14 | 12 | 222 | 181 |
| 1022300000 | 250                  | 60 | G 1/2 | M24x2    | 28 | 25 | 385 | 325 |

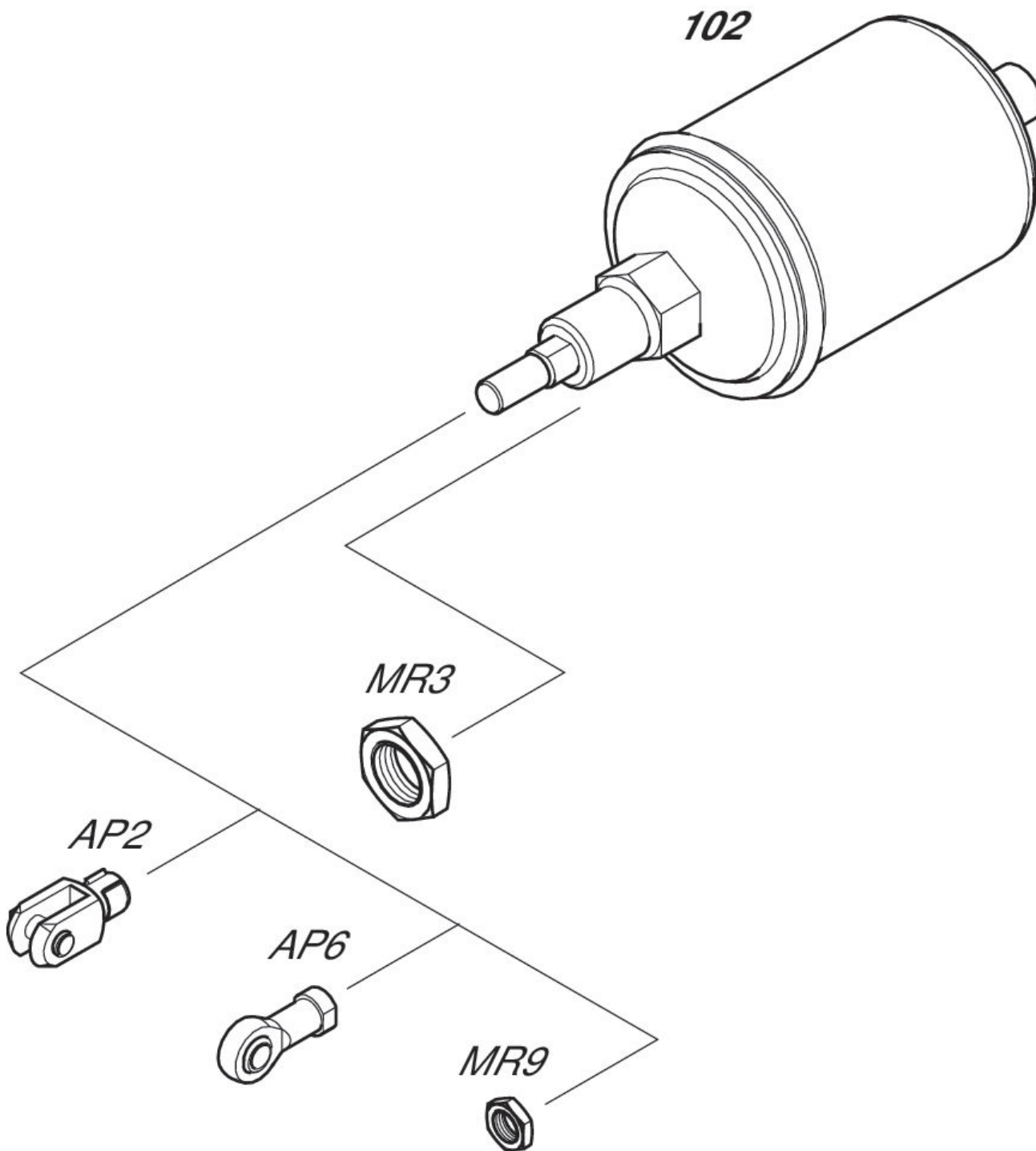
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## Overview drawing



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.