

# Round cylinder, Series RPC

R481609477

AVENTICS  
Series RPC  
Round  
cylinders

2024-04-05

## AVENTICS Series RPC Round cylinders

The AVENTICS Series RPC round profile cylinders offer a wide variety of connection options. They are easy to clean and suitable for packaging applications in the food industry due to food grade lubricants. The Series RPC can also be used in standard applications across machine automation needs.



## Technical data

|  |   |
|--|---|
| Industry                               | Industrial                                |
| Standards                              | ISO 6431                                  |
| Type                                   | Version: ISO-type                         |
| Piston Ø                               | 63 mm                                     |
| Stroke                                 | 40 mm                                     |
| Ports                                  | G 3/8                                     |
| Functional principle                   | Single-acting, retracted without pressure |
| Cushioning                             | Elastic cushioning                        |
| Magnetic piston                        | Piston with magnet                        |
| Environmental requirements             | Industry standard                         |
| Piston rod thread - type               | External thread                           |
| Piston rod thread                      | M16x1,5                                   |
| Piston rod                             | single                                    |
| Scraper                                | Standard Industry Scraper                 |
| Pressure for determining piston forces | 6,3 bar                                   |
| Retracting piston force                | 1802 N                                    |
| Extracting piston force                | 1860 N                                    |
| Min. ambient temperature               | -20 °C                                    |
| Max. ambient temperature               | 80 °C                                     |

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|  |  |
|--|--|
| Min. working pressure                              | 2 bar  |
| Max. working pressure                              | 10 bar   |
| Min. spring force                                  | 95 N   |
| Max. spring force                                  | 162 N  |
| Impact energy                                      | 1.3 J  |
| Weight 0 mm stroke                                 | 1.96 kg  |
| Weight +10 mm stroke                               | 0.044 kg   |
| Stroke max.  | 50 mm  |
| Medium   | Compressed air                                     |
| Min. medium temperature                            | -20 °C   |
| Max. medium temperature                            | 80 °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>                                |
| Clamping piece for magnetic field sensor necessary | Clamping piece for magnetic field sensor necessary |

## Material

|                       |                      |
|-----------------------|----------------------|
| Piston rod            | Stainless Steel      |
| Scraper material      | Polyurethane         |
| Seal material         | Polyurethane         |
| Material, front cover | Aluminum             |
| Cylinder tube         | Stainless Steel      |
| End cover             | Aluminum             |
| Nut for piston rod    | Steel, chrome-plated |
| Part No.              | R481609477           |

## 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>).

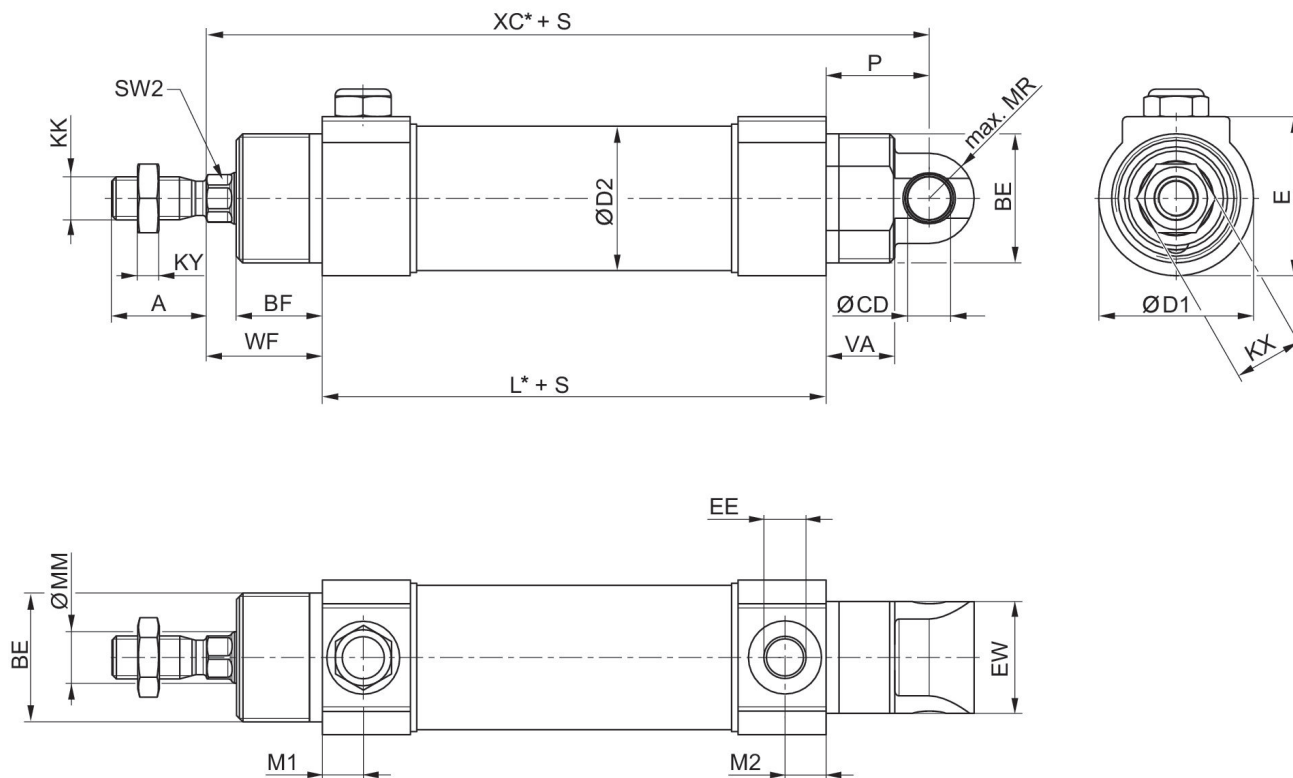
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## Dimensions



S = stroke

| Piston Ø | A  | BE      | BF   | Ø CD H9 | Ø D1 | Ø D2 | E  | EE    | EW |
|----------|----|---------|------|---------|------|------|----|-------|----|
| 32       | 22 | M30x1,5 | 20   | 10      | 36   | 33,6 | 37 | G 1/8 | 26 |
| 40       | 24 | M38x1,5 | 23   | 12      | 45   | 41,6 | 45 | G 1/4 | 28 |
| 50       | 32 | M45x1,5 | 24   | 12      | 55   | 52,4 | 55 | G 1/4 | 32 |
| 63       | 32 | M45x1,5 | 26,5 | 16      | 69   | 65,4 | 69 | G 3/8 | 40 |

| Piston Ø | KK       | KX | KY | L * | Ø MM | M1   | M2   | MR   | P  |
|----------|----------|----|----|-----|------|------|------|------|----|
| 32       | M10x1,25 | 16 | 5  | 92  | 12   | 9,5  | 9,5  | 10,5 | 24 |
| 40       | M12x1,25 | 18 | 6  | 107 | 16   | 11,5 | 11,5 | 13   | 21 |
| 50       | M16x1,5  | 24 | 8  | 110 | 20   | 11,5 | 11,5 | 13   | 25 |
| 63       | M16x1,5  | 24 | 8  | 125 | 20   | 13,5 | 13,5 | 17   | 31 |

| Piston Ø | SW2 | VA   | WF | XC * |
|----------|-----|------|----|------|
| 32       | 10  | 16   | 27 | 143  |
| 40       | 13  | 19   | 32 | 160  |
| 50       | 17  | 18,5 | 35 | 170  |
| 63       | 17  | 23   | 35 | 191  |

\* for stroke 26-50 mm, length dimensions XC and L are 25 mm longer

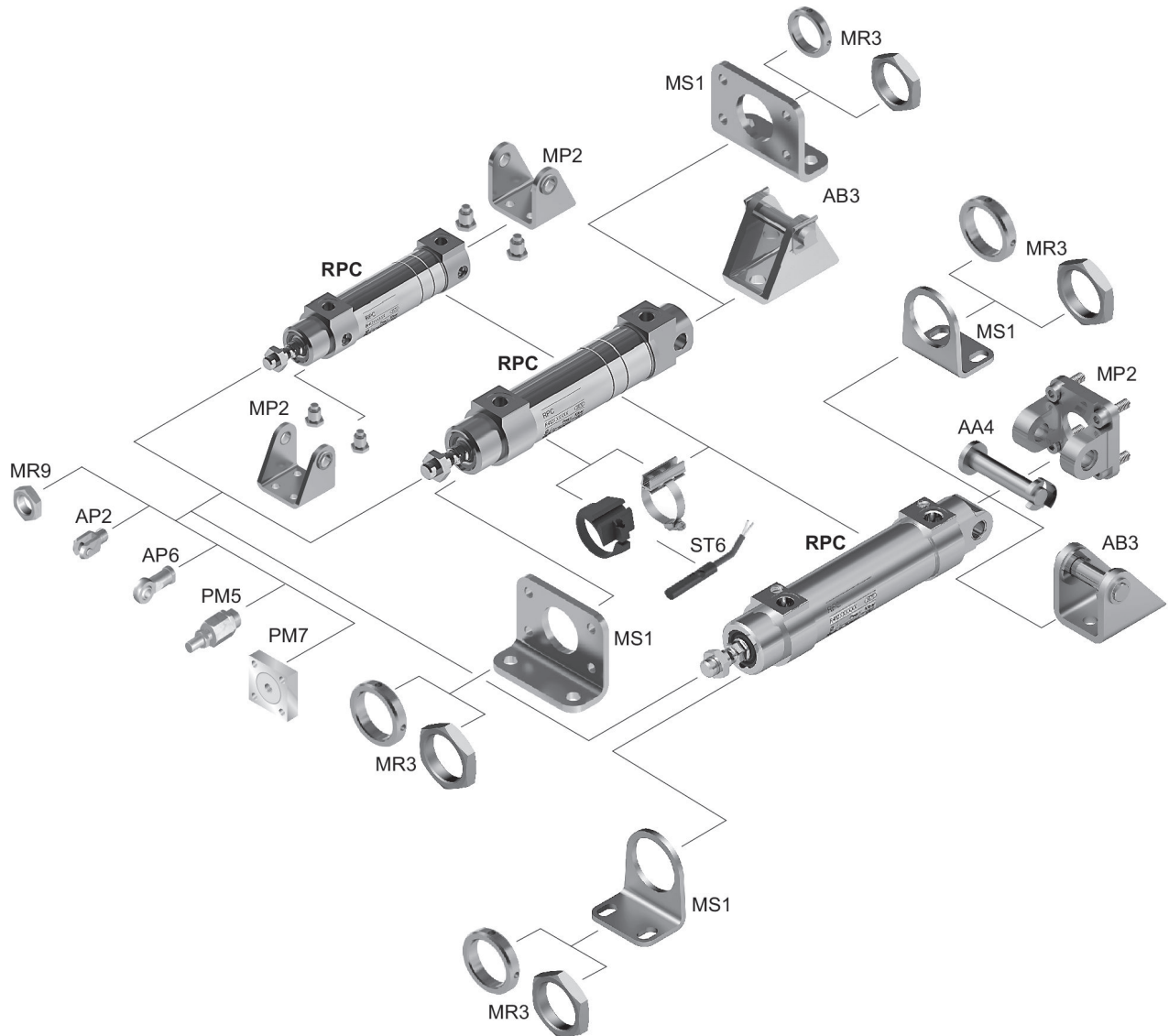
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## Overview drawing



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.