

## 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                             |
| Type                                   | Version: Standard type, heat-resistant |
| Piston Ø                               | 63 mm                                  |
| Stroke                                 | 320 mm                                 |
| Ports                                  | G 3/8                                  |
| 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                      | M16x1,5                                |
| Piston rod                             | single                                 |
| Scraper                                | Heat-Resistant Scraper                 |
| Pressure for determining piston forces | 6,3 bar                                |
| Retracting piston force                | 1765 N                                 |
| Extracting piston force                | 1960 N                                 |
| Min. ambient temperature               | -10 °C                                 |
| Max. ambient temperature               | 150 °C                                 |
| Min. working pressure                  | 1 bar                                  |
| Max. working pressure                  | 10 bar                                 |
| Cushioning length                      | 16.5 mm                                |
| Cushioning energy                      | 27 J                                   |
| Weight 0 mm stroke                     | 1.4 kg                                 |

# Round cylinder, Series RPC

R412020813

Series RPC

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|                                                    |                                                    |
|----------------------------------------------------|----------------------------------------------------|
| Weight +10 mm stroke                               | 0.044 kg                                           |
| Stroke max.                                        | 1200 mm                                            |
| Medium                                             | Compressed air                                     |
| Min. medium temperature                            | -10 °C                                             |
| Max. medium temperature                            | 150 °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      | Fluorocautchouc      |
| Seal material         | Fluorocautchouc      |
| Material, front cover | Aluminum             |
| Cylinder tube         | Stainless Steel      |
| End cover             | Aluminum             |
| Nut for piston rod    | Steel, chrome-plated |
| Guide bushing         | Steel, chrome-plated |
| Part No.              | R412020813           |

## Technical information

Ambient temperature with contact query max. [[120] °C]

Use our Internet configurator to order these variants with coarse-pitch thread M10x1.5 or M12x1.75.

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

1) Slot in throttle screw 1 mm

| Piston Ø | A  | BE      | BF   | Ø CD H8 | Ø D1 | Ø D2 | E  | EE    | EW | KK        |
|----------|----|---------|------|---------|------|------|----|-------|----|-----------|
| 32       | 22 | M30x1,5 | 20   | 10      | 36   | 33.5 | 37 | G 1/8 | 25 | M10x1,25* |
| 40       | 24 | M38x1.5 | 23   | 12      | 45   | 41.5 | 45 | G 1/4 | 30 | M12x1,25* |
| 50       | 32 | M45x1,5 | 24   | 12      | 55   | 52.5 | 55 | G 1/4 | 35 | M16x1,5   |
| 63       | 32 | M45x1,5 | 26.5 | 16      | 69   | 65.4 | 69 | G 3/8 | 35 | M16x1,5   |

| Piston Ø | KX | KY | L min. | Ø MM f8 | M1   | M2   | MR   | PB   | SW2 | VA |
|----------|----|----|--------|---------|------|------|------|------|-----|----|
| 32       | 16 | 5  | 22     | 12      | 11   | 11   | 18   | 75   | 10  | 14 |
| 40       | 19 | 6  | 23     | 16      | 11.5 | 11.5 | 22.5 | 87   | 13  | 15 |
| 50       | 24 | 8  | 26     | 20      | 11.5 | 11.5 | 25.5 | 87.5 | 17  | 18 |
| 63       | 24 | 8  | 29     | 20      | 13   | 13.5 | 36.5 | 92   | 17  | 20 |

| Piston Ø | WF   | XC  | ZN  |
|----------|------|-----|-----|
| 32       | 27   | 128 | 138 |
| 40       | 32   | 146 | 157 |
| 50       | 33.5 | 151 | 162 |
| 63       | 36.5 | 161 | 175 |

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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.