

## AVENTICS Series CCL-IC Standard cylinders (ISO 21287)

The AVENTICS Series CCL-IC (ISO 21287) cylinders with their compact and clean design can be used in a wide range of applications. Their smooth surface together with their materials, such as anodized aluminium, stainless steel, and NSF-H1 lubricants, make the cylinder ideal for the demanding requirements in the food and beverage industry.

- Compact clean design
- Available in nine sizes covering piston diameters from 16 mm to 100 mm
- Easy to clean anodized surfaces
- Scrapers and lubricants (NSF-H1) are approved for food applications
- Hygienic protective caps for unused mounting holes
- Universal mounting concept for easy assembly, without the need for additional mounting elements



## Technical data

|                                        |                                                                            |
|----------------------------------------|----------------------------------------------------------------------------|
| Industry                               | Industrial                                                                 |
| Standards                              | ISO 21287                                                                  |
| Piston Ø                               | 40 mm                                                                      |
| Stroke                                 | 20 mm                                                                      |
| Ports                                  | G 1/8                                                                      |
| Functional principle                   | Single-acting, retracted without pressure                                  |
| Cushioning                             | elastic cushioning                                                         |
| Magnetic piston                        | Piston with magnet                                                         |
| Environmental requirements             | Industry standard<br>suitable for use in food processing<br>High corrosion |
| Piston rod thread - type               | External thread                                                            |
| Piston rod thread                      | M10x1,25                                                                   |
| Piston rod                             | single                                                                     |
| Scraper                                | Standard Industry Scraper                                                  |
| Pressure for determining piston forces | 6,3 bar                                                                    |
| Retracting piston force                | 43 N                                                                       |
| Extracting piston force                | 749 N                                                                      |
| Min. ambient temperature               | -20 °C                                                                     |
| Max. ambient temperature               | 80 °C                                                                      |

# Compact cylinder ISO 21287, Series CCL-IC

R480668914

Series CCL-  
IC

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|                                    |                     |
|------------------------------------|---------------------|
| Min. working pressure              | 1 bar               |
| Max. working pressure              | 10 bar              |
| Max. spring force                  | 43 N                |
| Impact energy                      | 0.52 J              |
| Weight 0 mm stroke                 | 0.406 kg            |
| Weight +10 mm stroke               | 0.04 kg             |
| Stroke max.                        | 25 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> |

## Material

|                       |                 |
|-----------------------|-----------------|
| Piston rod            | Stainless Steel |
| Scraper material      | Polyurethane    |
| Material, front cover | Aluminum        |
| Cylinder tube         | Aluminum        |
| End cover             | Aluminum        |
| Part No.              | R480668914      |

## Technical information

Further options can be generated in the Internet configurator.

LW\*/SW\* Hexagonal key required

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

## Extracting piston force



F = spring return force, s = return stroke

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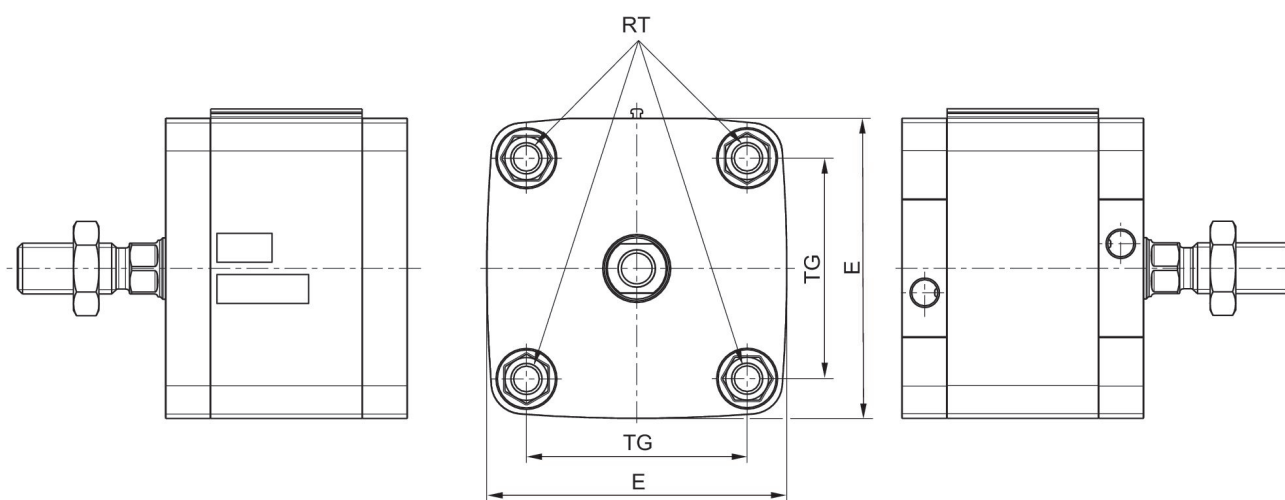
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## Dimensions

Ø16 - 63



Ø80 - 100



S = stroke

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| Piston Ø | A  | B1  | BG min. | E    | EE   | H   | KK       | KV | KW  | LA  |
|----------|----|-----|---------|------|------|-----|----------|----|-----|-----|
| 16       | 12 | 3.8 | 15      | 29   | M5   | 3.1 | M6       | 10 | 3.2 | 3.5 |
| 20       | 16 | 3.8 | 15      | 36.5 | M5   | 3.1 | M8       | 13 | 4   | 4.8 |
| 25       | 16 | 3.8 | 15      | 40.5 | M5   | 3.1 | M8       | 13 | 4   | 4.8 |
| 32       | 19 | 3.8 | 16      | 49.5 | G1/8 | 3.1 | M10x1.25 | 17 | 5   | 4.8 |
| 40       | 19 | 3.8 | 16      | 57.5 | G1/8 | 3.1 | M10x1.25 | 17 | 5   | 4.8 |
| 50       | 22 | 3.8 | 16      | 69.5 | G1/8 | 3.1 | M12x1.25 | 18 | 6   | 4.8 |
| 63       | 22 | 3.8 | 16      | 79.5 | G1/8 | 3.1 | M12x1.25 | 18 | 6   | 4.8 |

| Piston Ø | LA1 | LW  | LW*  | MM f8 | PL  | RR min. | RT | SW | SW* | TG        |
|----------|-----|-----|------|-------|-----|---------|----|----|-----|-----------|
| 16       | 3.5 | 3.2 | 3.2  | 8     | 5   | 3.2     | M4 | 7  | 7   | 18 ±0,4   |
| 20       | 4.6 | 3.7 | 3.7  | 10    | 5   | 4.1     | M5 | 8  | 8   | 22 ±0,4   |
| 25       | 4.6 | 3.7 | 3.7  | 10    | 5   | 4.1     | M5 | 8  | 8   | 26 ±0,4   |
| 32       | 4.8 | 5   | 5*   | 12    | 7.5 | 5.1     | M6 | 10 | 10* | 32,5 ±0,5 |
| 40       | 4.8 | 5   | 5*   | 12    | 7.5 | 5.1     | M6 | 10 | 10* | 38 ±0,5   |
| 50       | 4.8 | 5.7 | 4,8* | 16    | 7.5 | 6.4     | M8 | 13 | 13* | 46,5 ±0,6 |
| 63       | 4.8 | 5.7 | 4,8* | 16    | 7.5 | 6.4     | M8 | 13 | 13* | 56,5 ±0,7 |

| Piston Ø | WH       | ZA +S | ZB+S |
|----------|----------|-------|------|
| 16       | 4,8 ±1,4 | 36    | 40.8 |
| 20       | 6 ±1,4   | 37    | 43   |
| 25       | 6 ±1,4   | 39    | 45   |
| 32       | 7 ±1,6   | 44    | 51   |
| 40       | 7 ±1,6   | 45    | 52   |
| 50       | 8 ±1,6   | 45.5  | 53.5 |
| 63       | 8 ±1,6   | 49    | 57   |

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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.