



# Compact cylinder, Series CCI

R481636874

series CCI

2023-11-23

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|                                    |                     |
|------------------------------------|---------------------|
| Max. working pressure              | 10 bar              |
| Impact energy                      | 3.3 J               |
| Weight 0 mm stroke                 | 7.172 kg            |
| Weight +10 mm stroke               | 0.173 kg            |
| Stroke max.                        | 300 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         |
| Seal material         | Polyurethane         |
| Material, front cover | Aluminum             |
| Cylinder tube         | Aluminum             |
| End cover             | Aluminum             |
| Front plate           | Aluminum             |
| Nut for piston rod    | Steel, chrome-plated |
| Part No.              | R481636874           |

## 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>).

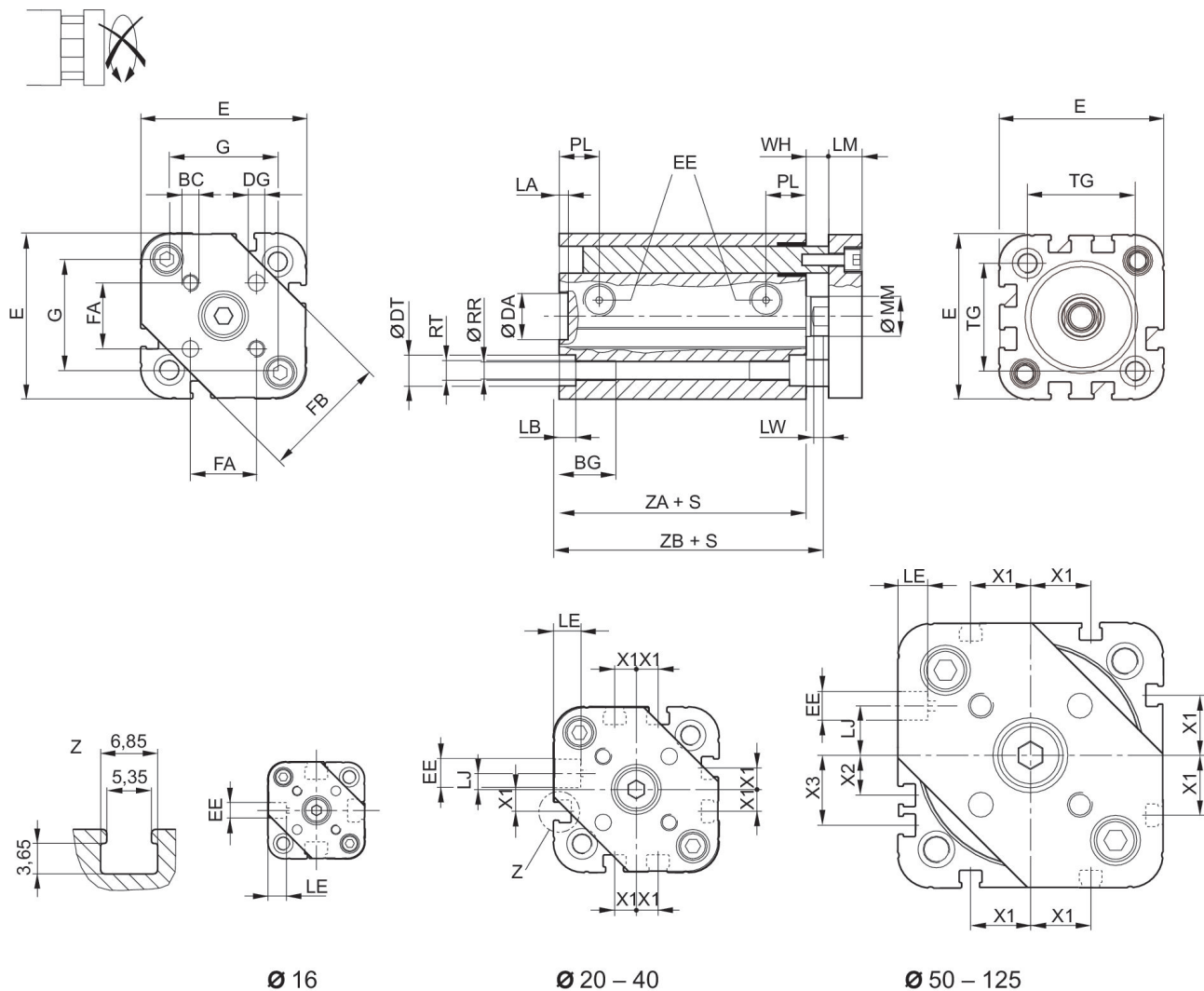
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## Dimensions



S = stroke

G = distance between the guide rods

| Piston Ø | BC  | BG   | DA H11 | DG H13 | DT  | E     | EE    | FA         | FB  |
|----------|-----|------|--------|--------|-----|-------|-------|------------|-----|
| 16       | M3  | 15   | 10     | 3      | 6   | 29.3  | M5    | 9.9 ±0.1   | 20  |
| 20       | M4  | 15.5 | 12     | 4      | 7.5 | 36.3  | M5    | 12 ±0.1    | 24  |
| 25       | M5  | 15.5 | 12     | 5      | 8   | 40.3  | M5    | 15.6 ±0.1  | 30  |
| 32       | M5  | 17   | 14     | 5      | 8.6 | 50    | G 1/8 | 19.8 ±0.1  | 38  |
| 40       | M5  | 17   | 14     | 5      | 9.2 | 58    | G 1/8 | 23.3 ±0.1  | 44  |
| 50       | M6  | 17   | 18     | 6      | 11  | 68.3  | G 1/8 | 29.7 ±0.1  | 54  |
| 63       | M6  | 17   | 18     | 6      | 11  | 80    | G 1/8 | 35.4 ±0.1  | 62  |
| 80       | M8  | 20   | 23     | 8      | 15  | 96    | G 1/8 | 46 ±0.1    | 80  |
| 100      | M10 | 20   | 28     | 10     | 15  | 116   | G 1/8 | 56.6 ±0.1  | 100 |
| 125      | M10 | 35   | 12     | 10     | -   | 134.6 | G 1/4 | 63.64 ±0.1 | 120 |

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| Piston Ø | G   | LA  | LB  | LE  | LJ   | LM | LW  | MM f8 | PL   |
|----------|-----|-----|-----|-----|------|----|-----|-------|------|
| 16       | 19  | 2.5 | 3.5 | 4.5 | —    | 6  | 4   | 8     | 8    |
| 20       | 25  | 2.5 | 4.5 | 4.5 | 4.5  | 8  | 4   | 10    | 10   |
| 25       | 27  | 2.5 | 4.5 | 4.5 | 4    | 8  | 4   | 10    | 10   |
| 32       | 34  | 2.5 | 5   | 7.5 | 4.85 | 10 | 4.5 | 12    | 12   |
| 40       | 42  | 2.5 | 5   | 7.5 | 9.85 | 10 | 4.5 | 12    | 12   |
| 50       | 49  | 2.5 | 5   | 7.5 | 12   | 12 | 6   | 16    | 12   |
| 63       | 60  | 2.5 | 5   | 7.5 | 14.8 | 12 | 6   | 16    | 12   |
| 80       | 72  | 3   | 5   | 7.5 | 22   | 14 | 7   | 20    | 14   |
| 100      | 92  | 3   | 5   | 7.5 | 27   | 14 | 7   | 25    | 16.5 |
| 125      | 110 | 2.6 | -   | ??? | 39   | 18 | 7.5 | 25    | 20.5 |

| Piston Ø | RR   | RT 6H | TG   | WH       | X1  | X2   | X3   | ZA ±0,1 | ZB        |
|----------|------|-------|------|----------|-----|------|------|---------|-----------|
| 16       | 3.3  | M4    | 18   | 4.8 ±0.9 | —   | —    | —    | 34.9    | 39.7 ±0.8 |
| 20       | 4.2  | M5    | 22   | 5.6 ±0.9 | 4.2 | —    | —    | 37.3    | 43.6 ±0.8 |
| 25       | 4.2  | M5    | 26   | 5.6 ±0.9 | 4.5 | —    | —    | 39      | 44.5 ±0.9 |
| 32       | 5.1  | M6    | 32.5 | 7.4 ±0.9 | 6.5 | —    | —    | 44      | 51.4 ±1   |
| 40       | 5.1  | M6    | 38   | 7.4 ±0.9 | 11  | —    | —    | 45      | 52.4 ±1   |
| 50       | 6.7  | M8    | 46.5 | 8.4 ±0.9 | 13  | 4    | 13   | 45.5    | 53.6 ±1   |
| 63       | 6.7  | M8    | 56.5 | 8.5 ±0.9 | 18  | 12   | 21   | 49      | 57.4 ±1   |
| 80       | 8.5  | M10   | 72   | 9.8 ±1   | 18  | 16.5 | 25.5 | 54.7    | 64.4 ±1   |
| 100      | 8.5  | M10   | 89   | 9.8 ±1   | 20  | 20   | 29   | 67      | 76.7 ±1   |
| 125      | 11.1 | M12   | 110  | 11       | 29  | 29   | 38   | 81      | 92 ±1     |

## Maximum admissible lateral force dynamic



$F_{dyn}$  = dynamic lateral force

X = distance between force application point and cylinder cover

S = stroke

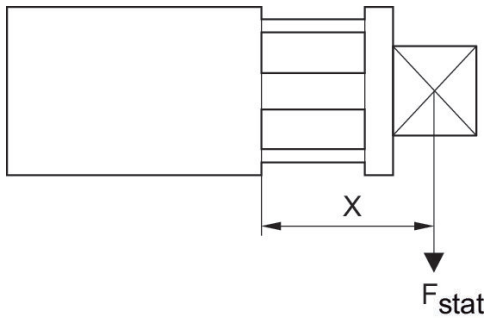
## Maximum admissible lateral force dynamic



$F_{dyn}$  = dynamic lateral force

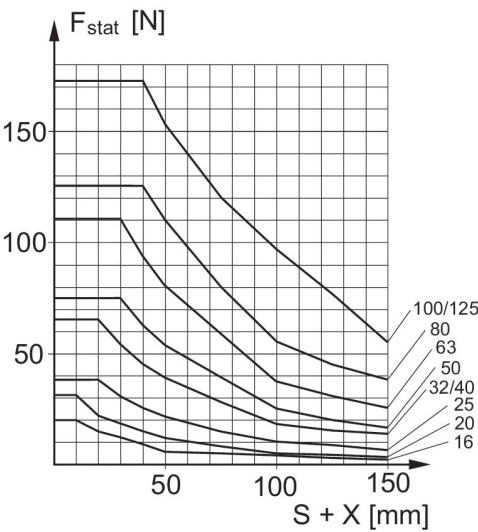
X = distance between force application point and cylinder cover

Maximum admissible lateral force static



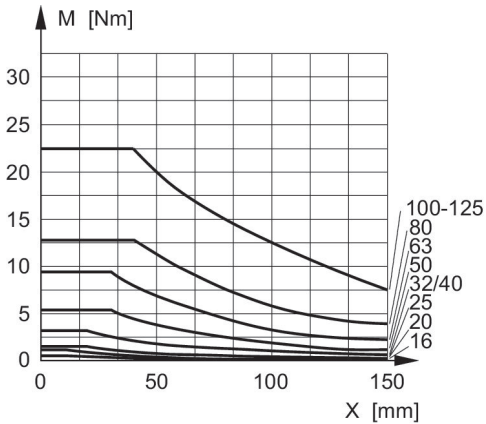
$F_{stat}$  = static lateral force  
 $X$  = distance between force application point and cylinder cover

Maximum admissible lateral force static



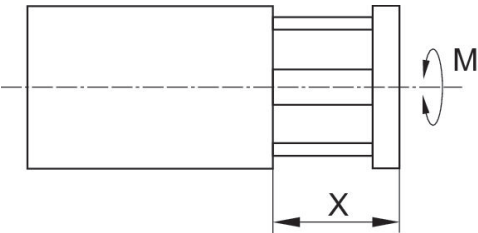
$F_{stat}$  = static lateral force  
 $X$  = distance between force application point and cylinder cover  
 $S$  = stroke

Max. permissible torque



$M$  = max. permissible torque  
 $X$  = spacing between torque contact surface and cylinder cover

Max. permissible torque



$M$  = max. permissible torque  
 $X$  = distance between force application point and cylinder cover

## 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.