

Compact cylinder ISO 21287, Series CCI

- Ø 16 mm
- Ports M5
- Single-acting, retracted without pressure
- with magnetic piston
- Cushioning elastic
- Piston rod External thread
- Piston rod through



| Standards | ISO 21287 |
|--|---------------------------|
| Compressed air connection | Internal thread |
| Working pressure min./max. | 1,5 ... 10 bar |
| Ambient temperature min./max. | -20 ... 80 °C |
| Medium temperature min./max. | -20 ... 80 °C |
| Medium | Compressed air |
| Max. particle size | 50 µm |
| Oil content of compressed air | 0 ... 5 mg/m ³ |
| Pressure for determining piston forces | 6.3 bar |

Technical data

| Piston Ø | 16 mm | 20 mm | 25 mm | 32 mm | 40 mm | 50 mm |
|-------------------|------------|------------|------------|------------|------------|------------|
| Piston rod thread | M6x1 | M8x1,25 | M8x1,25 | M10x1,25 | M10x1,25 | M12x1,25 |
| Ports | M5 | M5 | M5 | G 1/8 | G 1/8 | G 1/8 |
| Piston rod Ø | 8 mm | 10 mm | 10 mm | 12 mm | 12 mm | 16 mm |
| Stroke 5 | R422001642 | R422001643 | R422001644 | R422001645 | R422001646 | R422001647 |
| 10 | R422001652 | R422001653 | R422001654 | R422001655 | R422001656 | R422001657 |
| 15 | R422001662 | R422001663 | R422001664 | R422001665 | R422001666 | R422001667 |
| 20 | R422001672 | R422001673 | R422001674 | R422001675 | R422001676 | R422001677 |
| 25 | R422001682 | R422001683 | R422001684 | R422001685 | R422001686 | R422001687 |

| Piston Ø | 63 mm | 80 mm | 100 mm |
|-------------------|------------|------------|------------|
| Piston rod thread | M12x1,25 | M16x1,5 | M16x1,5 |
| Ports | G 1/8 | G 1/8 | G 1/8 |
| Piston rod Ø | 16 mm | 20 mm | 25 mm |
| Stroke 5 | R422001648 | R422001649 | R422001650 |
| 10 | R422001658 | R422001659 | R422001660 |
| 15 | R422001668 | R422001669 | R422001670 |
| 20 | R422001678 | R422001679 | R422001680 |
| 25 | R422001688 | R422001689 | R422001690 |

Technical information

The pressure dew point must be at least 15 °C under 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 the MediaCentre).

| | | | | | | | |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|
| Retracting piston force | 12 N | 13 N | 25 N | 35 N | 43 N | 82 N | 82 N |
| Extracting piston force | 83 N | 135 N | 235 N | 400 N | 677 N | 1028 N | 1745 N |
| Impact energy | 0,11 J | 0,15 J | 0,2 J | 0,4 J | 0,52 J | 0,64 J | 0,75 J |
| Weight 0 mm stroke | 0,074 kg | 0,147 kg | 0,169 kg | 0,297 kg | 0,372 kg | 0,566 kg | 0,811 kg |
| Weight +10 mm stroke | 0,02 kg | 0,029 kg | 0,032 kg | 0,052 kg | 0,06 kg | 0,087 kg | 0,103 kg |
| Stroke max. | 25 mm | 25 mm | 25 mm | 25 mm | 25 mm | 25 mm | 25 mm |

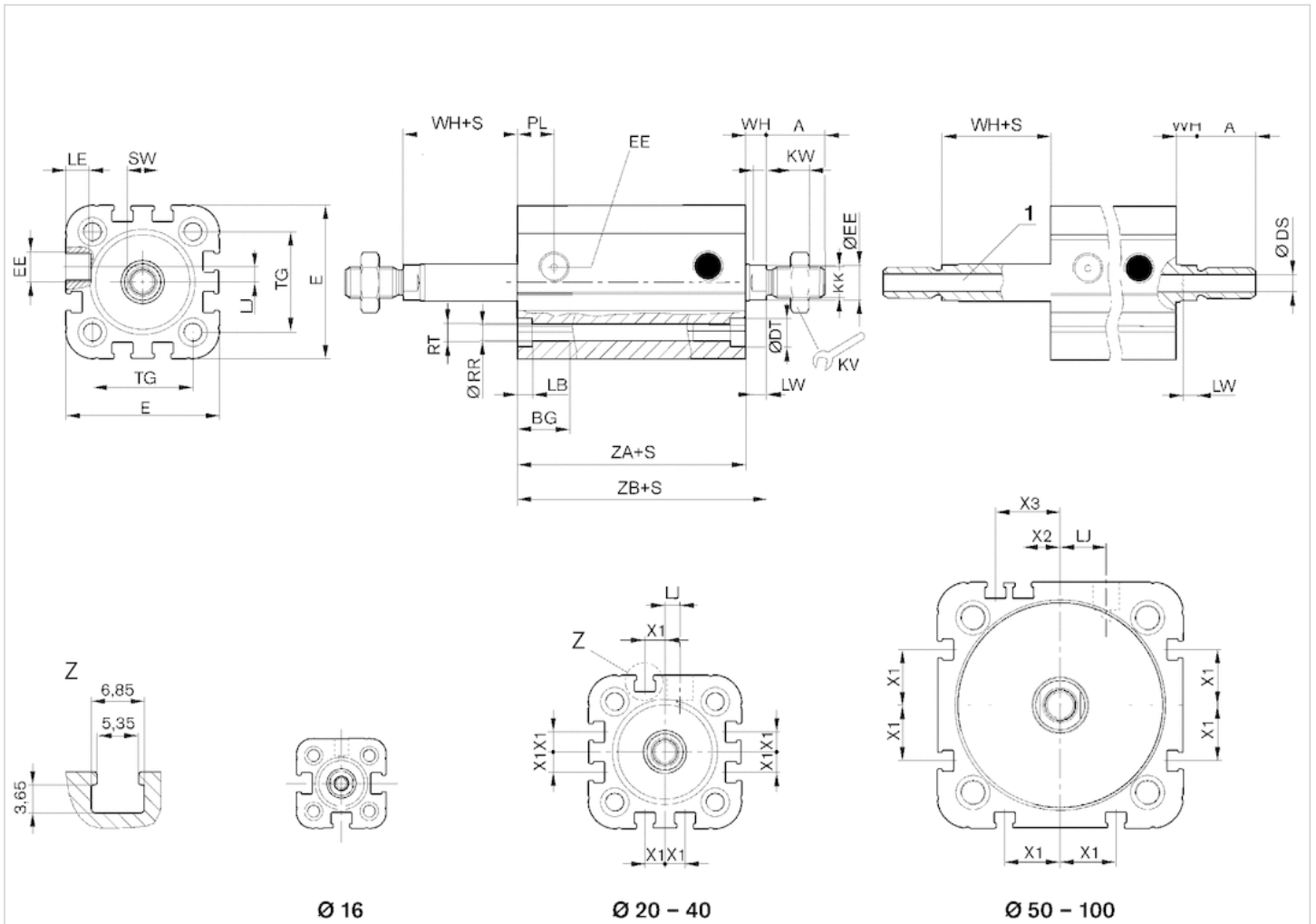
| Piston Ø | 80 mm | 100 mm |
|-------------------------|----------|----------|
| Retracting piston force | 105 N | 215 N |
| Extracting piston force | 2864 N | 4424 N |
| Impact energy | 0,75 J | 1 J |
| Weight 0 mm stroke | 1,359 kg | 2,474 kg |
| Weight +10 mm stroke | 0,14 kg | 0,206 kg |
| Stroke max. | 25 mm | 25 mm |

Technical information

| Material | |
|--------------------|--------------------|
| Cylinder tube | Aluminum, anodized |
| Piston rod | Stainless steel |
| Front cover | Aluminum |
| End cover | Aluminum |
| Seal | Polyurethane |
| Nut for piston rod | Steel, galvanized |
| Scraper | Polyurethane |

Dimensions

Ø 16 mm ... 100 mm



1) Hollow piston rod (to be generated by Internet configurator)
S = stroke

Dimensions

| Piston Ø | A 1) | AF | BG | Ø DS | DT | E | EE | KK 4) | KV | KW | LB | LE | LJ | LW |
|----------|------|-------|------|------|-----|------|-------|-------------------|----|----|-----|-----|------|-----|
| 16 mm | 12 | 10 | 15 | 2 | 6 | 29.3 | M5 | M6 / M5 | 10 | 3 | 3.5 | 4.5 | 0 | 4 |
| 20 mm | 16 | 12 | 15.5 | 3.8 | 7.5 | 36.3 | M5 | M8 / G 1/8 | 13 | 4 | 4.5 | 4.5 | 4.5 | 4 |
| 25 mm | 16 | 12 | 15.5 | 3.8 | 8 | 40.3 | M5 | M8 / G 1/8 | 13 | 4 | 4.5 | 4.5 | 4 | 4 |
| 32 mm | 19 | 12 | 17 | 4.5 | 8.6 | 50 | G 1/8 | M10x1,25 / G 1/8 | 17 | 5 | 5 | 7.5 | 4.85 | 4.5 |
| 40 mm | 19 | 12 | 17 | 4.5 | 9.2 | 58 | G 1/8 | M10x1,25 / G 1/8 | 17 | 5 | 5 | 7.5 | 9.85 | 4.5 |
| 50 mm | 22 | 16 2) | 17 | 6 | 11 | 68.3 | G 1/8 | M12x1,25 / G 1/4 | 19 | 6 | 5 | 7.5 | 12 | 6 |
| 63 mm | 22 | 16 2) | 17 | 6 | 11 | 80 | G 1/8 | M12x1,25 / G 1/4 | 19 | 6 | 5 | 7.5 | 14.8 | 6 |
| 80 mm | 28 | 20 3) | 20 | 8 | 15 | 96 | G 1/8 | M16x1,5 / M16x1,5 | 24 | 8 | 5 | 7.5 | 22 | 7 |
| 100 mm | 28 | 20 3) | 20 | 8 | 15 | 116 | G 1/8 | M16x1,5 / M16x1,5 | 24 | 8 | 5 | 7.5 | 27 | 7 |

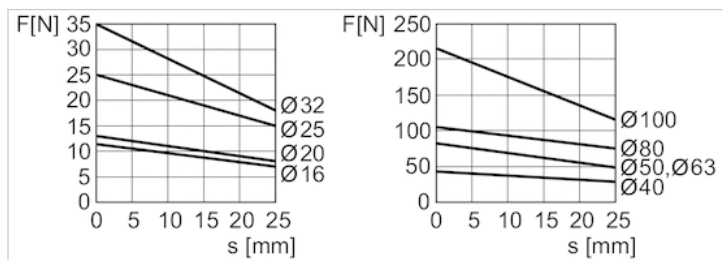
| Piston Ø | MM f8 | PL | RR | RT 6H | SW | TG | WH 5) | X1 | X2 | X3 | ZA | ZB 5) |
|----------|-------|----|-----|-------|----|----|----------|-----|----|----|-----------|-----------|
| 16 mm | 8 | 8 | 3.3 | M4 | 7 | 18 | 4,8 ±0,9 | - | - | - | 34,9 ±0,1 | 39,7 ±0,8 |
| 20 mm | 10 | 10 | 4.2 | M5 | 8 | 22 | 6,3 ±0,9 | 4.2 | - | - | 37,3 ±0,1 | 43,6 ±0,8 |

| Piston Ø | MM f8 | PL | RR | RT 6H | SW | TG | WH 5) | X1 | X2 | X3 | ZA | ZB 5) |
|----------|-------|------|-----|-------|----|------|----------|-----|------|------|-----------|-----------|
| 25 mm | 10 | 10 | 4.2 | M5 | 8 | 26 | 5,6 ±0,9 | 4.5 | – | – | 39 ±0,1 | 44,5 ±0,9 |
| 32 mm | 12 | 12 | 5.1 | M6 | 10 | 32.5 | 7,4 ±0,9 | 6.5 | – | – | 44 ±0,1 | 51,4 ±1 |
| 40 mm | 12 | 12 | 5.1 | M6 | 10 | 38 | 7,4 ±0,9 | 11 | – | – | 45 ±0,1 | 52,4 ±1 |
| 50 mm | 16 | 12 | 6.7 | M8 | 13 | 46.5 | 8,4 ±0,9 | 13 | 4 | 13 | 45,5 ±0,1 | 53,6 ±1 |
| 63 mm | 16 | 12 | 6.7 | M8 | 13 | 56.5 | 8,5 ±0,9 | 18 | 12 | 21 | 49 ±0,1 | 57,4 ±1 |
| 80 mm | 20 | 14 | 8.5 | M10 | 16 | 72 | 9,8 ±1 | 18 | 16.5 | 25.5 | 54,7 ±0,1 | 64,4 ±1 |
| 100 mm | 25 | 16.5 | 8.5 | M10 | 21 | 89 | 9,8 ±1 | 20 | 20 | 29 | 67 ±0,1 | 76,7 ±1 |

- 1) With cylinders with external thread extension, dimension "A" is increased by the value of the thread extension.
- 2) Stroke 5 mm: AF= 11 mm
- 3) Stroke 5 mm: AF= 15 mm
- 4) Solid piston rod/hollow piston rod
- 5) With cylinders with a piston rod extension, dimensions "WH" and "ZB" are increased by the value of the piston rod extension.

Diagrams

Extracting piston force



F = spring return force, s = return stroke