

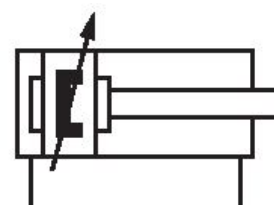
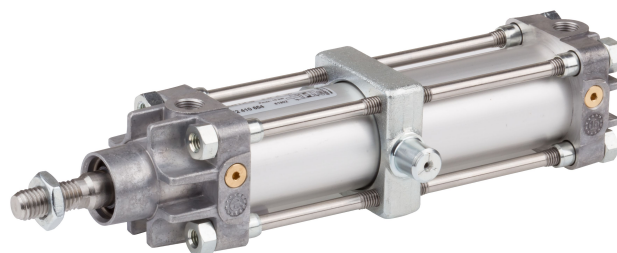
# Tie rod cylinder, CNOMO NFE 49-001, Series C12P

R422715107

## General series information

AVENTICS Series C12P Tie rod cylinders

- The AVENTICS Series C12P is a cylinder Series according the standard CNOMO NFE 49-001 and offer a replacement for existing application.



## Technical data

|                            |                                 |
|----------------------------|---------------------------------|
| Industry                   | Industrial                      |
| Standards                  | CNOMO / NFE 49-001              |
| Piston Ø                   | 40 mm                           |
| Stroke                     | 50 mm                           |
| Ports                      | G 1/4                           |
| Functional principle       | Double-acting                   |
| Cushioning                 | Pneumatic adjustable cushioning |
| Magnetic piston            | Piston with magnet              |
| Environmental requirements | Industry standard               |
| Piston rod                 | single                          |
| Cylinder special features  | with trunnion mounting          |
| Scraper                    | Standard Industry Scraper       |

|                                        |                     |
|----------------------------------------|---------------------|
| Pressure for determining piston forces | 6,3 bar             |
| Retracting piston force                | 600 N               |
| Extracting piston force                | 792 N               |
| Min. ambient temperature               | -20 °C              |
| Max. ambient temperature               | 80 °C               |
| Working pressure min.                  | 2 bar               |
| Working pressure max                   | 10 bar              |
| Piston rod thread                      | M16x1,5             |
| Weight 0 mm stroke                     | 0.75 kg             |
| Weight +10 mm stroke                   | 0.055 kg            |
| Stroke max.                            | 1900 mm             |
| Medium                                 | Compressed air      |
| Min. medium temperature                | -20 °C              |
| Max. medium temperature                | 80 °C               |
| Max. particle size                     | 50 µm               |
| Oil content of compressed air min.     | 0 mg/m <sup>3</sup> |
| Oil content of compressed air max.     | 5 mg/m <sup>3</sup> |

## Material

|                       |                      |
|-----------------------|----------------------|
| Piston rod            | Stainless Steel      |
| Material tie-rod      | Stainless Steel      |
| Seal material         | Polyurethane         |
| Material, front cover | Aluminum             |
| Cylinder tube         | Aluminum             |
| End cover             | Aluminum             |
| Nut for piston rod    | Steel, chrome-plated |
| Part No.              | R422715107           |

## Technical information

Optional heat-resistant variants are suitable for applications at temperatures up to [[120]°C] and do not have a magnetic piston.

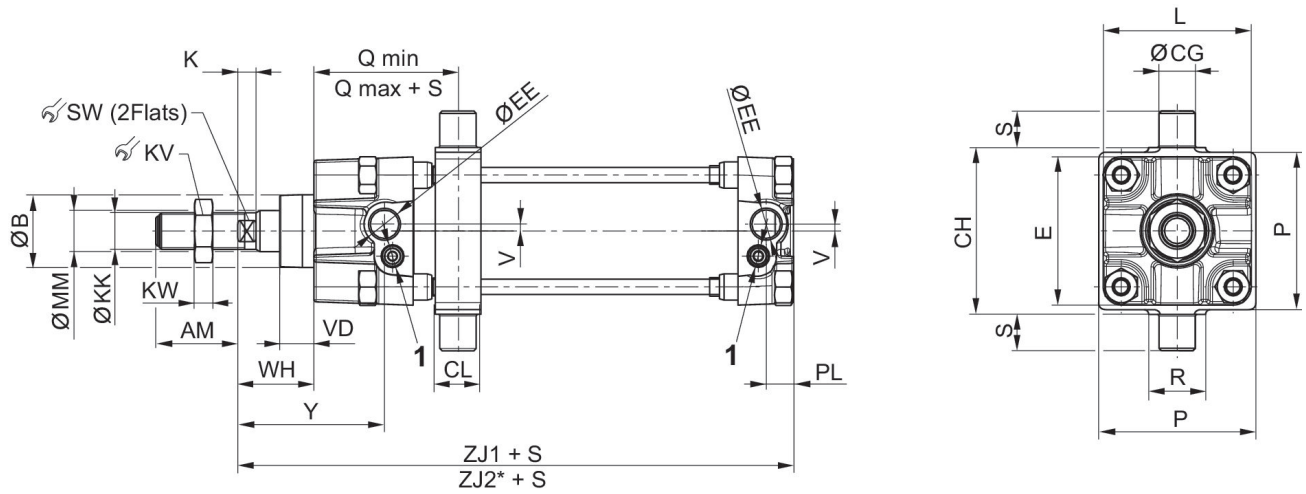
You will find the order key and all valid configurations (customer information) in the Media Centre.

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>).

## Dimensions



1) Flow control screw  
S=stroke

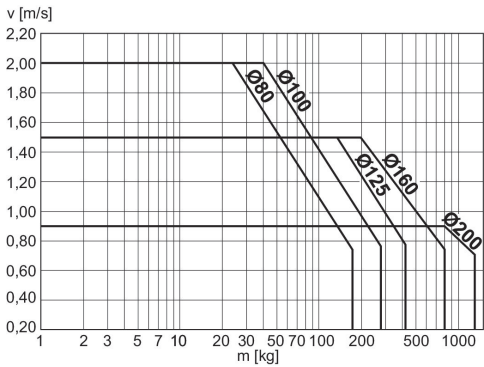
| Piston $\varnothing$ | AM | $\varnothing B e9$ | $\varnothing CG$ | CH  | CL | E   | $\varnothing EE$ | K  | $\varnothing KK$ |
|----------------------|----|--------------------|------------------|-----|----|-----|------------------|----|------------------|
| 25                   | 20 | 25                 | 12               | 42  | 22 | 40  | G1/8             | 6  | M10x1,5          |
| 32                   | 20 | 25                 | 12               | 50  | 15 | 45  | G1/8             | 6  | M10x1,5          |
| 40                   | 36 | 32                 | 16               | 63  | 20 | 52  | G1/4             | 8  | M16x1,5          |
| 50                   | 36 | 32                 | 16               | 73  | 20 | 65  | G1/4             | 8  | M16x1,5          |
| 63                   | 46 | 45                 | 20               | 90  | 25 | 75  | G3/8             | 10 | M20x1,5          |
| 80                   | 46 | 45                 | 20               | 108 | 25 | 95  | G3/8             | 10 | M20x1,5          |
| 100                  | 63 | 55                 | 25               | 131 | 30 | 115 | G1/2             | 16 | M27x2            |
| 125                  | 63 | 55                 | 25               | 160 | 32 | 140 | G1/2             | 16 | M27x2            |
| 160                  | 85 | 65                 | 32               | 200 | 50 | 180 | G3/4             | 16 | M36x2            |
| 200                  | 85 | 65                 | 32               | 250 | 50 | 220 | G3/4             | 16 | M36x2            |

| Piston $\varnothing$ | KV | KW   | $\varnothing MM$ | P   | PL | Q min. | Q max. + S | R  | S  |
|----------------------|----|------|------------------|-----|----|--------|------------|----|----|
| 25                   | 17 | 5    | 12               | 38  | 9  | 40     | 50         | 20 | 12 |
| 32                   | 17 | 5    | 12               | 46  | 9  | 43     | 48         | 20 | 12 |
| 40                   | 24 | 8    | 18               | 59  | 12 | 54     | 75         | 25 | 16 |
| 50                   | 24 | 8    | 18               | 69  | 12 | 62     | 67         | 25 | 16 |
| 63                   | 30 | 10   | 22               | 84  | 14 | 64     | 79         | 30 | 20 |
| 80                   | 30 | 10   | 22               | 102 | 14 | 67     | 77         | 30 | 20 |
| 100                  | 41 | 13.5 | 30               | 125 | 18 | 73     | 91         | 36 | 25 |
| 125                  | 41 | 13.5 | 30               | 155 | 18 | 75     | 89         | 36 | 25 |
| 160                  | 55 | 18   | 40               | -   | 25 | 81     | 100        | 45 | 32 |
| 200                  | 55 | 18   | 40               | -   | 25 | 79     | 101        | 45 | 32 |

| Piston $\varnothing$ | SW | TG | V | VD | WH | Y  | ZJ1 | ZJ2 |
|----------------------|----|----|---|----|----|----|-----|-----|
| 25                   | 8  | 28 | - | 15 | 25 | 44 | 105 | -   |
| 32                   | 8  | 33 | - | 15 | 25 | 44 | 105 | 128 |
| 40                   | 13 | 40 | 3 | 15 | 34 | 65 | 144 | 165 |

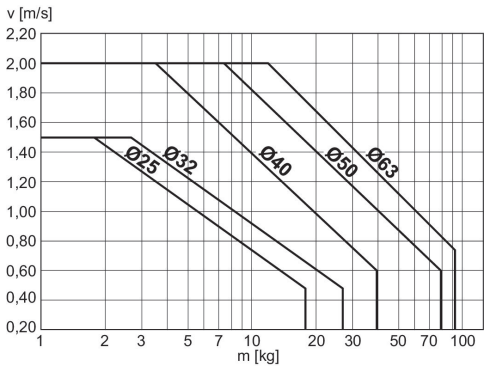
| Piston Ø | SW | TG  | V | VD | WH | Y  | ZJ1 | ZJ2 |
|----------|----|-----|---|----|----|----|-----|-----|
| 50       | 13 | 49  | 3 | 15 | 34 | 65 | 144 | 167 |
| 63       | 17 | 59  | 5 | 20 | 39 | 71 | 164 | 189 |
| 80       | 17 | 75  | 9 | 20 | 39 | 71 | 164 | 188 |
| 100      | 22 | 90  | - | 20 | 47 | 84 | 192 | 221 |
| 125      | 22 | 110 | - | 20 | 47 | 84 | 192 | 237 |
| 160      | 32 | 140 | - | 25 | 50 | 95 | 230 | 272 |
| 200      | 32 | 175 | - | 25 | 50 | 95 | 230 | 277 |

Cushioning diagram



v = Piston velocity [m/s] m = Cushionable mass [kg]

Cushioning diagram



v = Piston velocity [m/s] m = Cushionable mass [kg]