

# ISO cylinder DNCI-40- -

Part number: 535412

**FESTO**



 General operating condition

## Data sheet

Overall data sheet – Individual values depend upon your configuration.

| Feature                                           | Value                                                                     |
|---------------------------------------------------|---------------------------------------------------------------------------|
| Stroke                                            | 10 mm ... 2000 mm                                                         |
| Stroke Servopneumatic positioning                 | 100 mm ... 500 mm                                                         |
| Stroke Smart Softstop                             | 100 mm ... 500 mm                                                         |
| Stroke reduction at end positions                 | ≥ 10 mm                                                                   |
| Smallest positioning stroke                       | 3% of max. stroke<br>Max. 20 mm                                           |
| Piston diameter                                   | 40 mm                                                                     |
| Based on standard                                 | ISO 15552 (previously also VDMA 24562, ISO 6431, NF E49 003.1, UNI 10290) |
| Cushioning                                        | Elastic cushioning rings/plates at both ends                              |
| Positioning installation position                 | optional                                                                  |
| Soft Stop installation position                   | Optional                                                                  |
| Functional principle of measuring system          | Digital                                                                   |
| Design                                            | Piston<br>Piston rod<br>Profile barrel                                    |
| Position detection                                | Via proximity switch<br>With integrated displacement encoder              |
| Variants                                          | Clamping unit attached<br>Extended piston rod<br>Piston rod at one end    |
| Protection against torque/guide                   | Dual flat piston rod                                                      |
| Operating pressure                                | ≤1.2 MPa                                                                  |
| Operating pressure                                | ≤12 bar                                                                   |
| Operating pressure                                | ≤174 psi                                                                  |
| Operating pressure positioning/Soft Stop          | 4 bar ... 8 bar                                                           |
| Max. travel speed                                 | ≥1.5 m/s                                                                  |
| Min. travel speed                                 | 0.05 m/s                                                                  |
| Typical positioning time short stroke, horizontal | 0.4/0.55 s                                                                |
| Typical positioning time long stroke, horizontal  | 0.5/0.75 s                                                                |
| Mode of operation                                 | Double-acting                                                             |
| Nominal operating voltage DC                      | 5 V                                                                       |
| CE mark (see declaration of conformity)           | To EU EMC Directive<br>In accordance with EU RoHS Directive               |
| UKCA marking (see declaration of conformity)      | To UK instructions for EMC<br>To UK RoHS instructions                     |
| Operating medium                                  | Compressed air to ISO 8573-1:2010 [6:4:4]                                 |

| Feature                                                      | Value                                                                                |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Note on operating and pilot medium                           | Dew point at least 10 °C below the ambient temperature and temperature of the medium |
| Continuous shock resistance to DIN/IEC 68 Part 2-82          | Tested to severity level 2                                                           |
| Corrosion resistance class CRC                               | 1 - Low corrosion stress                                                             |
| LABS (PWIS) conformity                                       | VDMA24364-B1/B2-L                                                                    |
| Max. magnetic interference field                             | 10 kA/m at a distance of 100 mm                                                      |
| Degree of protection                                         | IP65<br>To IEC 60529                                                                 |
| Vibration resistance to DIN/IEC 68 Part 2-6                  | Tested to severity level 2                                                           |
| Ambient temperature                                          | -20 °C ... 80 °C                                                                     |
| Impact energy in end positions                               | 0.2 J                                                                                |
| Max. torque for protection against torsion                   | ≤0.05 Nm                                                                             |
| Max. working load, horizontal                                | 75 kg                                                                                |
| Max. working load, vertical                                  | 25 kg                                                                                |
| Min. working load, horizontal                                | 5 kg                                                                                 |
| Min. working load, vertical                                  | 5 kg                                                                                 |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke  | 633 N                                                                                |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke | 633 N ... 754 N                                                                      |
| Moving mass for 0 mm stroke                                  | 175 g                                                                                |
| Additional moving mass per 10 mm stroke                      | 14 g                                                                                 |
| Basic weight for 0 mm stroke                                 | 853 g                                                                                |
| Additional weight per 10 mm stroke                           | 44 g                                                                                 |
| Output signal                                                | Analogue                                                                             |
| Repetition accuracy in ± mm                                  | 0.5 mm                                                                               |
| Max. controllable force during advance stroke                | 679 N                                                                                |
| Max. controllable force during return stroke                 | 570 N                                                                                |
| Typical friction force                                       | 50 N                                                                                 |
| Repetition accuracy Soft Stop intermediate position          | +/-2 mm                                                                              |
| Electrical connection encoder                                | 8-pin                                                                                |
| Cable length                                                 | 1.5 m                                                                                |
| Type of mounting                                             | With accessories                                                                     |
| Pneumatic connection                                         | G1/4                                                                                 |
| Note on materials                                            | RoHS-compliant                                                                       |
| Material cover                                               | Wrought aluminium alloy                                                              |
| Material seals                                               | NBR<br>TPE-U(PU)                                                                     |
| Material cable sheath                                        | TPE-U(PUR)                                                                           |
| Material piston rod                                          | High-alloy steel                                                                     |
| Material screws                                              | Steel                                                                                |
| Material sensor cover                                        | Aluminium                                                                            |
| Material sensor head                                         | POM                                                                                  |
| Material connector housing                                   | PBT                                                                                  |
| Material cylinder barrel                                     | Wrought aluminium alloy                                                              |