

# Electro-cylinder DNCE-40-300-BS-"12,7" P-Q

Part number: 555467

FESTO

with ball screw actuator and non-rotating piston rod.



## Data sheet

| Feature  | Value   |
|--|---|
| Working stroke                                   | 300 mm  |
| Size   | 40  |
| Stroke   | 300 mm  |
| Stroke reserve                                   | 0 mm  |
| Piston rod thread                                | M12x1,25  |
| Reversing backlash                               | 0.05 mm   |
| Spindle diameter                                 | 12.7 mm   |
| Spindle pitch                                    | 12.7 mm/U   |
| Max. angular deflection of piston rod +/-        | 0.25 deg  |
| Based on the standard                            | ISO 15552 (previously also VDMA 24652, ISO 6431, NF E49 003.1, UNI 10290) |
| Assembly position                                | Any   |
| Motor type                                       | Stepper motor<br>Servomotor   |
| Position detection                               | For proximity sensor  |
| Design structure                                 | Electro-cylinder with ball screw  |
| Spindle type                                     | Ball screw actuator   |
| Variants   | Non-rotating piston rod   |
| Protection against torque/guide                  | with plain-bearing guide  |
| Max. acceleration                                | 6 m/s <sup>2</sup>  |
| Max. speed                                       | 0.635 m/s   |
| Repetition accuracy                              | +/-0,02 mm  |
| Duty cycle                                       | 100%  |
| Corrosion resistance classification CRC          | 0   |
| Storage temperature                              | -25 ... 60 °C   |
| Relative air humidity                            | 0 - 95 %  |
| Protection class                                 | IP40  |
| Ambient temperature                              | 0 ... 50 °C   |
| Impact energy in end positions                   | 0.0002 J  |
| Permanent drive torque                           | 1.6 Nm  |
| Permanent feed force                             | 640 N   |
| Max. drive torque                                | 1.9 Nm  |
| Max. torque for protection against rotation      | 1 Nm  |
| Max. torque Mx                                   | 1 Nm  |
| Max. radial force at drive shaft                 | 260 N   |
| Max. static axial force Fx                       | 1,400 N   |
| Max. feed force Fx                               | 800 N   |
| No-load driving torque                           | 0.12 Nm   |
| Reference value for working load, horizontal     | 80 kg   |
| Reference value for working load, vertical       | 40 kg   |
| Mass moment of inertia JH per meter of stroke    | 0.1572 kgcm <sup>2</sup>  |
| Mass moment of inertia JL per kg of working load | 0.0409 kgcm <sup>2</sup>  |
| Mass moment of inertia, JO                       | 0.1337 kgcm <sup>2</sup>  |
| Moving mass with 0 mm stroke                     | 380 g   |

| Feature                                    | Value   |
|--|---|
| Additional weight per 10 mm stroke         | 46.7 g  |
| Basic weight for 0 mm stroke               | 1,350 g   |
| Additional mass factor per 10 mm of stroke | 8.9 g   |
| Mounting type                              | with internal (female) thread<br>with accessories |
| Materials note                             | Contains PWIS substances<br>Conforms to RoHS      |
| Materials information for cover            | Aluminum casting<br>Painted                       |
| Materials information for seals            | NBR   |
| Materials information, housing             | Wrought Aluminum alloy<br>Smooth anodized         |
| Materials information for piston rod       | High alloy steel, non-corrosive                   |
| Material information, spindle nut          | Roller bearing steel                              |
| Material information, spindle              | Roller bearing steel                              |
| Materials information for cylinder barrel  | Wrought Aluminum alloy<br>Smooth anodized         |