

# Electric cylinder ESBF-BS-63-100-5P

Part number: 574093

FESTO



 General operating condition

## Data sheet

| Feature   | Value                                  |
|---|--|
| Working stroke  | 100 mm                                 |
| Size  | 63                                     |
| Stroke  | 100 mm                                 |
| Piston rod thread   | M16x1.5                                |
| Reversing backlash  | 30 µm                                  |
| Screw diameter  | 25 mm                                  |
| Spindle pitch   | 5 mm/U                                 |
| Max. angle of rotation of the piston rod +/-              | 0.4 deg                                |
| Based on norm   | ISO 15552                              |
| Mounting position   | Any                                    |
| Piston rod end  | External thread                        |
| Motor type  | Servo motor                            |
| Position sensing  | For proximity sensor                   |
| Structural design   | Electric cylinder with ball screw      |
| Spindle type  | Ball screw                             |
| Symbol  | 00991941                               |
| Protection against torsion/guide                          | With plain-bearing guide               |
| Max. acceleration   | 5 m/s <sup>2</sup>                     |
| Max. rotational speed                                     | 3250 rpm                               |
| Max. speed  | 0.27 m/s                               |
| Repetition accuracy                                       | ±0.015 mm                              |
| Duty cycle  | 100%                                   |
| Corrosion resistance class (CRC)                          | 2 - Moderate corrosion stress          |
| LABS (PWIS) conformity                                    | VDMA24364 zone III                     |
| Storage temperature                                       | -20 °C ... 60 °C                       |
| For use in the food industry                              | See supplementary material information |
| Relative air humidity                                     | 0 - 95 %                               |
| Degree of protection                                      | IP40                                   |
| Ambient temperature                                       | 0 °C ... 60 °C                         |
| Max. driving torque                                       | 7 Nm                                   |
| Max. radial force on actuator shaft                       | 700 N                                  |
| Max. feed force F <sub>x</sub>                            | 7000 N                                 |
| No-load driving torque                                    | 0.4 Nm                                 |
| Guide value for payload, horizontal                       | 700 kg                                 |
| Guide value for payload, vertical                         | 700 kg                                 |
| Mass moment of inertia J <sub>H</sub> per meter of stroke | 2.8316 kgcm <sup>2</sup>               |

| <b>Feature</b>                              | <b>Value</b>                            |
|---|---|
| Mass moment of inertia JL per kg of payload | 0.00633 kgcm <sup>2</sup>               |
| Mass moment of inertia JO                   | 0.49112 kgcm <sup>2</sup>               |
| Maintenance interval                        | Life-time lubrication                   |
| Moving mass at 0 mm stroke                  | 1829 g                                  |
| Additional moving mass per 10 mm stroke     | 52 g                                    |
| Basic weight with 0 mm stroke               | 3163 g                                  |
| Additional weight per 10 mm stroke          | 87 g                                    |
| Type of mounting                            | With internal thread<br>or accessory    |
| Interface code, actuator                    | D60                                     |
| Note on materials                           | RoHS-compliant                          |
| Cover material                              | Die-cast aluminum, coated               |
| Piston rod material                         | High-alloy stainless steel              |
| Material of screws                          | Steel, galvanized                       |
| Ball screw nut material                     | Roller bearing steel                    |
| Spindle material                            | Roller bearing steel                    |
| Material of cylinder barrel                 | Wrought aluminum alloy, smooth-anodized |