

# Electric cylinder EPCC-BS-60-

Part number: 5428914

**FESTO**



## Data sheet

| Feature                                                   | Value                                                              |
|-----------------------------------------------------------|--------------------------------------------------------------------|
| Size                                                      | 60                                                                 |
| Stroke                                                    | 25 mm...500 mm                                                     |
| Stroke reserve                                            | 0 mm                                                               |
| Piston rod thread                                         | M12x1.25                                                           |
| Reversing backlash                                        | 100 µm                                                             |
| Screw diameter                                            | 12 mm                                                              |
| Spindle pitch                                             | 5 mm/U...12 mm/U                                                   |
| Max. angle of rotation of the piston rod +/-              | 1 deg                                                              |
| Mounting position                                         | Any                                                                |
| Piston rod end                                            | External thread<br>Internal thread                                 |
| Motor type                                                | Stepper motor<br>Servo motor                                       |
| Position sensing                                          | Via proximity switch                                               |
| Structural design                                         | Electric cylinder<br>With ball screw                               |
| Spindle type                                              | Ball screw                                                         |
| Protection against torsion/guide                          | With plain bearing-guide                                           |
| Max. acceleration                                         | 5 m/s <sup>2</sup> ...15 m/s <sup>2</sup>                          |
| Max. rotational speed                                     | 3000 rpm                                                           |
| Max. speed                                                | 0.067 m/s...0.6 m/s                                                |
| Max. homing speed                                         | 0.01 m/s                                                           |
| Repetition accuracy                                       | ±0.02 mm                                                           |
| Duty cycle                                                | 100%                                                               |
| Corrosion resistance class (CRC)                          | 0 - No corrosion stress                                            |
| LABS (PWIS) conformity                                    | VDMA24364 Zone III                                                 |
| Suitability for the production of Li-ion batteries        | Suitable for battery production with reduced Cu/Zn/Ni values (F1a) |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 9 according to ISO 14644-1                                   |
| Storage temperature                                       | -20 °C...60 °C                                                     |
| Relative air humidity                                     | 0 - 95%<br>Non-condensating                                        |
| Degree of protection                                      | IP40                                                               |

| Feature                                       | Value                                                |
|-----------------------------------------------|------------------------------------------------------|
| Ambient temperature                           | 0 °C...60 °C                                         |
| Impact energy in the end positions            | 0.024 J                                              |
| Max. driving torque                           | 1.2 Nm...2.4 Nm                                      |
| Max. torque Mx                                | 0 Nm                                                 |
| Max. torque My                                | 6.4 Nm                                               |
| Max. torque Mz                                | 6.4 Nm                                               |
| Max. radial force on actuator shaft           | 230 N                                                |
| Max. feed force Fx                            | 1000 N                                               |
| No-load driving torque                        | 0.235 Nm...0.325 Nm                                  |
| Guide value for payload, horizontal           | 120 kg                                               |
| Guide value for payload, vertical             | 60 kg                                                |
| Mass moment of inertia JH per meter of stroke | 0.1195 kgcm <sup>2</sup> ...0.1519 kgcm <sup>2</sup> |
| Mass moment of inertia JL per kg of payload   | 0.0063 kgcm <sup>2</sup> ...0.0365 kgcm <sup>2</sup> |
| Mass moment of inertia JO                     | 0.0682 kgcm <sup>2</sup> ...0.0779 kgcm <sup>2</sup> |
| Maintenance interval                          | Lifetime lubrication                                 |
| Moving mass at 0 mm stroke                    | 305 g...888 g                                        |
| Additional moving mass per 10 mm stroke       | 6.5 g...24.3 g                                       |
| Basic weight with 0 mm stroke                 | 1114 g...2728 g                                      |
| Additional weight per 10 mm stroke            | 69 g...87 g                                          |
| Type of mounting                              | With internal thread<br>With accessories             |
| Note on materials                             | RoHS compliant                                       |
| Housing material                              | Wrought aluminum alloy<br>Smooth-anodized            |
| Piston rod material                           | high-alloy stainless steel                           |
| Ball screw nut material                       | Steel                                                |
| Spindle material                              | Bearing steel                                        |