

# Electric cylinder EPCC-BS-45-25-10P-A

Part number: 5428868

FESTO



 General operating condition

## Data sheet

| Feature   | Value  |
|---|--|
| Size  | 45   |
| Stroke  | 25 mm  |
| Stroke reserve  | 0 mm   |
| Piston rod thread   | M10x1.25   |
| Reversing backlash  | 100 µm   |
| Screw diameter  | 10 mm  |
| Spindle pitch   | 10 mm/U  |
| Max. angle of rotation of the piston rod +/-              | 1 deg  |
| Mounting position   | Any  |
| Piston rod end  | External thread  |
| Motor type  | Stepper motor<br>Servo motor                                       |
| Position sensing  | For proximity sensor   |
| Structural design   | with ball screw drive  |
| Spindle type  | Ball screw drive   |
| Symbol  | 00991941   |
| Protection against torsion/guide                          | With plain-bearing guide   |
| Max. acceleration   | 15 m/s <sup>2</sup>  |
| Max. rotational speed                                     | 3600 rpm   |
| Max. speed  | 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                                     | Non-condensing   |
| Degree of protection                                      | IP40   |
| Ambient temperature                                       | 0 °C ... 60 °C   |
| Impact energy in the end positions                        | 0.012 J  |
| Max. driving torque                                       | 0.9 Nm   |
| Max. torque Mx  | 0 Nm   |
| Max. torque My  | 2.9 Nm   |
| Max. torque Mz  | 2.9 Nm   |

| <b>Feature</b>                                | <b>Value</b>                             |
|---|--|
| Max. radial force on actuator shaft           | 180 N                                    |
| Max. feed force Fx                            | 450 N                                    |
| No-load driving torque                        | 0.16 Nm                                  |
| Guide value for payload, horizontal           | 60 kg                                    |
| Guide value for payload, vertical             | 30 kg                                    |
| Mass moment of inertia JH per meter of stroke | 0.0711 kgcm <sup>2</sup>                 |
| Mass moment of inertia JL per kg of payload   | 0.0253 kgcm <sup>2</sup>                 |
| Mass moment of inertia JO                     | 0.0153 kgcm <sup>2</sup>                 |
| Maintenance interval                          | Life-time lubrication                    |
| Moving mass at 0 mm stroke                    | 179 g                                    |
| Additional moving mass per 10 mm stroke       | 4.9 g                                    |
| Basic weight with 0 mm stroke                 | 555 g                                    |
| Additional weight per 10 mm stroke            | 41 g                                     |
| Type of mounting                              | With internal thread<br>With accessories |
| Note on materials                             | RoHS-compliant                           |
| Housing material                              | Smooth anodized                          |
| Piston rod material                           | High-alloy stainless steel               |
| Ball screw nut material                       | Steel                                    |
| Spindle material                              | Roller bearing steel                     |