

# 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 class                                    | Class 9 according to ISO 14644-1                                   |
| Storage temperature                                | -20 °C ... 60 °C                                                   |
| Relative air humidity                              | 0 - 95 %<br>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                                                             |

| Feature                                       | Value                                    |
|-----------------------------------------------|------------------------------------------|
| Max. torque Mz                                | 2.9 Nm                                   |
| 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               |
| Spindle nut material                          | Steel                                    |
| Spindle material                              | Roller bearing steel                     |