## Electric cylinder EPCC-BS-45-150-3P-A Part number: 5428863

**FESTO** 





## **Data sheet**

| Feature   | Value  |
|---|--|
| Size  | 45   |
| Stroke  | 150 mm   |
| Stroke reserve  | 0 mm   |
| Piston rod thread   | M10x1.25   |
| Reversing backlash theoretical                            | 100 μm   |
| Spindle diameter  | 10 mm  |
| Spindle pitch   | 3 mm/U   |
| Torsional backlash at piston rod +/-                      | 1 deg  |
| Mounting position   | optional   |
| Piston-rod end  | Male thread  |
| Type of motor   | Stepper motor<br>Servo motor                                       |
| Position detection  | Via proximity switch   |
| Design  | Electric cylinder<br>With ball screw drive                         |
| Spindle type  | Ball screw drive   |
| Protection against torque/guide                           | With plain-bearing guide   |
| Max. acceleration   | 5 m/s²   |
| Max. rotational speed                                     | 3600 rpm   |
| Max. speed  | 0.18 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 °C60 °C  |
| Relative air humidity                                     | 0 - 95%<br>Non-condensing  |
| Degree of protection                                      | IP40   |
| Ambient temperature                                       | 0 °C60 °C  |

| Feature  | Value                                      |
|--|--|
| Impact energy in end positions                   | 0.012 J                                    |
| Max. drive torque                                | 0.4 Nm                                     |
| Max. moment Mx                                   | 0 Nm                                       |
| Max. moment My                                   | 2.9 Nm                                     |
| Max. moment Mz                                   | 2.9 Nm                                     |
| Max. radial force at drive shaft                 | 180 N                                      |
| Max. feed force Fx                               | 450 N                                      |
| Frictional torque independent of load            | 0.08 Nm                                    |
| Reference value effective load, horizontal       | 60 kg                                      |
| Reference value effective load, vertical         | 30 kg                                      |
| Mass moment of inertia JH per metre of stroke    | 0.0503 kgcm²                               |
| Mass moment of inertia JL per kg of working load | 0.0023 kgcm²                               |
| Mass moment of inertia JO                        | 0.0109 kgcm²                               |
| Maintenance interval                             | Life-time lubrication                      |
| Moving mass for 0 mm stroke                      | 179 g                                      |
| Additional moving mass per 10 mm stroke          | 4.9 g                                      |
| Basic weight for 0 mm stroke                     | 555 g                                      |
| Additional weight per 10 mm stroke               | 41 g                                       |
| Type of mounting                                 | Via female thread<br>With accessories      |
| Note on materials                                | RoHS-compliant                             |
| Material housing                                 | Wrought aluminium alloy<br>Smooth anodised |
| Material piston rod                              | High-alloy stainless steel                 |
| Material ball screw nut                          | Steel                                      |
| Material spindle                                 | Rolled steel                               |