

# Electric cylinder EPCC-BS-60-50-5P-A

Part number: 5428889

FESTO



 General operating condition

## Data sheet

| Feature                                            | Value                                                                                                                                                    |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size                                               | 60                                                                                                                                                       |
| Stroke                                             | 50 mm                                                                                                                                                    |
| Stroke reserve                                     | 0 mm                                                                                                                                                     |
| Piston rod thread                                  | M12x1.25                                                                                                                                                 |
| Reversing backlash theoretical                     | 100 µm                                                                                                                                                   |
| Spindle diameter                                   | 12 mm                                                                                                                                                    |
| Spindle pitch                                      | 5 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                                                                                                                                         |
| Symbol                                             | 00991941                                                                                                                                                 |
| Protection against torque/guide                    | With plain-bearing guide                                                                                                                                 |
| Max. acceleration                                  | 5 m/s <sup>2</sup>                                                                                                                                       |
| Max. rotational speed                              | 3000 rpm                                                                                                                                                 |
| Max. speed                                         | 0.25 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 according to the Festo internal definition of the degree of severity F1A with restrictions regarding the use of Cu/Zn/Ni |
| 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 end positions                     | 0.024 J                                                                                                                                                  |
| Max. drive torque                                  | 1.2 Nm                                                                                                                                                   |

| Feature                                          | Value                                 |
|--------------------------------------------------|---------------------------------------|
| Max. moment Mx                                   | 0 Nm                                  |
| Max. moment My                                   | 6.4 Nm                                |
| Max. moment Mz                                   | 6.4 Nm                                |
| Max. radial force at drive shaft                 | 230 N                                 |
| Max. feed force Fx                               | 1000 N                                |
| Frictional torque independent of load            | 0.235 Nm                              |
| Reference value effective load, horizontal       | 120 kg                                |
| Reference value effective load, vertical         | 60 kg                                 |
| Mass moment of inertia JH per metre of stroke    | 0.1195 kgcm <sup>2</sup>              |
| Mass moment of inertia JL per kg of working load | 0.0063 kgcm <sup>2</sup>              |
| Mass moment of inertia JO                        | 0.0682 kgcm <sup>2</sup>              |
| Maintenance interval                             | Life-time lubrication                 |
| Moving mass for 0 mm stroke                      | 305 g                                 |
| Additional moving mass per 10 mm stroke          | 6.5 g                                 |
| Basic weight for 0 mm stroke                     | 1114 g                                |
| Additional weight per 10 mm stroke               | 69 g                                  |
| Type of mounting                                 | Via female thread<br>With accessories |
| Note on materials                                | RoHS-compliant                        |
| Material housing                                 | Smooth anodised                       |
| Material piston rod                              | High-alloy stainless steel            |
| Material spindle nut                             | Steel                                 |
| Material spindle                                 | Rolled steel                          |