

# Electric actuator EPCO-16-50-3P-ST-E

Part number: 1476415

**FESTO**



## Data sheet

| Feature                                      | Value                                      |
|----------------------------------------------|--------------------------------------------|
| Bending radius, fixed cable installation     | ≥60 mm                                     |
| Size                                         | 16                                         |
| Stroke                                       | 50 mm                                      |
| Stroke reserve                               | 0 mm                                       |
| Piston rod thread                            | M6                                         |
| Reversing backlash                           | 100 µm                                     |
| Step angle with full step                    | 1.8 deg                                    |
| Step angle tolerance                         | ±5%                                        |
| Screw diameter                               | 8 mm                                       |
| Spindle pitch                                | 3 mm/U                                     |
| Max. angle of rotation of the piston rod +/- | 2 deg                                      |
| Type code                                    | EPCO                                       |
| Mounting position                            | Any                                        |
| Piston rod end                               | External thread                            |
| Motor type                                   | Stepper motor                              |
| Design                                       | Electric actuator<br>with ball screw drive |
| Spindle type                                 | Ball screw drive                           |
| Protection against torsion/guide             | With plain-bearing guide                   |
| Rotor position sensor                        | Incremental encoder                        |
| Rotor position sensor interface              | RS422 TTL A/B channels + zero index        |
| Rotor position sensor measuring principle    | Optical                                    |
| Max. acceleration                            | 10 m/s <sup>2</sup>                        |
| Max. speed                                   | 0.125 m/s                                  |
| Repetition accuracy                          | ±0.02 mm                                   |
| Duty cycle                                   | 100%                                       |
| Insulation protection class                  | B                                          |
| Nominal operating voltage DC                 | 24 V                                       |
| Motor nominal current                        | 1.4 A                                      |
| CE marking (see declaration of conformity)   | As per EU EMC directive                    |
| Corrosion resistance class (CRC)             | 1 - Low corrosion stress                   |
| Storage temperature                          | -20 °C ... 60 °C                           |
| Relative air humidity                        | 0 - 85 %<br>Non-condensing                 |
| Degree of protection                         | IP40                                       |
| Ambient temperature                          | 0 °C ... 50 °C                             |

| Feature                                       | Value                                                          |
|-----------------------------------------------|----------------------------------------------------------------|
| Certification                                 | RCM compliance mark<br>c UL us - Recognized (OL)               |
| Impact energy in the end positions            | 1.0E-4 J                                                       |
| Max. torque Mx                                | 0 Nm                                                           |
| Max. torque My                                | 0.6 Nm                                                         |
| Max. torque Mz                                | 0.6 Nm                                                         |
| Max. feed force Fx                            | 125 N                                                          |
| Guide value for payload, horizontal           | 24 kg                                                          |
| Guide value for payload, vertical             | 12 kg                                                          |
| Mass moment of inertia JH per meter of stroke | 0.0253 kgcm <sup>2</sup>                                       |
| Mass moment of inertia JL per kg of payload   | 0.0023 kgcm <sup>2</sup>                                       |
| Mass moment of inertia JO                     | 0.0228 kgcm <sup>2</sup>                                       |
| Moving mass at 0 mm stroke                    | 70 g                                                           |
| Additional weight per 10 mm stroke            | 17 g                                                           |
| Basic weight with 0 mm stroke                 | 615 g                                                          |
| Additional moving mass per 10 mm stroke       | 2 g                                                            |
| Electrical connection technology              | Plug                                                           |
| Type of mounting                              | With internal thread<br>With accessories                       |
| Note on materials                             | Contains paint-wetting impairment substances<br>RoHS-compliant |
| Cover material                                | Wrought aluminum alloy<br>Smooth anodized                      |
| Housing material                              | Wrought aluminum alloy<br>Smooth anodized                      |
| Piston rod material                           | High-alloy stainless steel                                     |
| Spindle nut material                          | Steel                                                          |
| Spindle material                              | Roller bearing steel                                           |
| Material of cylinder barrel                   | Wrought aluminum alloy<br>Smooth anodized                      |