

# Electric actuator ESBF-BS-100-200-40P

Part number: 574123

FESTO



## Data sheet

| Feature                                       | Value                                  |
|-----------------------------------------------|----------------------------------------|
| Size                                          | 100                                    |
| Stroke                                        | 200 mm                                 |
| Piston rod thread                             | M20x1.5                                |
| Reversing backlash                            | 40 µm                                  |
| Screw diameter                                | 40 mm                                  |
| Spindle pitch                                 | 40 mm/U                                |
| Max. angle of rotation of the piston rod +/-  | 0.5 deg                                |
| Type code                                     | ESBF                                   |
| Based on norm                                 | ISO 15552                              |
| Mounting position                             | Any                                    |
| Piston rod end                                | External thread                        |
| Motor type                                    | Servo motor                            |
| Position sensing                              | For proximity sensor                   |
| Design                                        | Electric actuator with ball screw      |
| Spindle type                                  | Ball screw                             |
| Symbol                                        | 00991941                               |
| Protection against torsion/guide              | With plain-bearing guide               |
| Max. acceleration                             | 25 m/s²                                |
| Max. speed                                    | 1.34 m/s                               |
| Repetition accuracy                           | ±0.01 mm                               |
| Duty cycle                                    | 100%                                   |
| Corrosion resistance class (CRC)              | 2 - Moderate corrosion stress          |
| Storage temperature                           | -20 °C ... 60 °C                       |
| For use in the food industry                  | See supplementary material information |
| Relative air humidity                         | 0 - 95 %                               |
| Degree of protection                          | IP40                                   |
| Ambient temperature                           | 0 °C ... 60 °C                         |
| Max. driving torque                           | 102.6 Nm                               |
| Max. radial force on actuator shaft           | 1100 N                                 |
| Max. feed force Fx                            | 14500 N                                |
| No-load driving torque                        | 1 Nm                                   |
| Guide value for payload, horizontal           | 1400 kg                                |
| Guide value for payload, vertical             | 1400 kg                                |
| Mass moment of inertia JH per meter of stroke | 20.372 kgcm²                           |
| Mass moment of inertia JL per kg of payload   | 0.40528 kgcm²                          |
| Mass moment of inertia JO                     | 6.1704 kgcm²                           |

| Feature                                 | Value                                                          |
|-----------------------------------------|----------------------------------------------------------------|
| Moving mass at 0 mm stroke              | 8786 g                                                         |
| Additional weight per 10 mm stroke      | 193 g                                                          |
| Basic weight with 0 mm stroke           | 11123 g                                                        |
| Additional moving mass per 10 mm stroke | 132 g                                                          |
| Type of mounting                        | With internal thread<br>or accessory                           |
| Interface code, actuator                | D100                                                           |
| Note on materials                       | Contains paint-wetting impairment substances<br>RoHS-compliant |
| Cover material                          | Die-cast aluminum, coated                                      |
| Piston rod material                     | High-alloy stainless steel                                     |
| Material of screws                      | Steel, galvanized                                              |
| Spindle nut material                    | Roller bearing steel                                           |
| Spindle material                        | Roller bearing steel                                           |
| Material of cylinder barrel             | Wrought aluminum alloy, smooth-anodized                        |