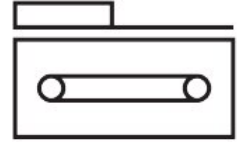


# Belt driven linear actuator ELGR-TB-45-1000-0H

Part number: 8083783

FESTO



 [General operating condition](#)

## Data sheet

| Feature                                       | Value                              |
|-----------------------------------------------|------------------------------------|
| Drive pinion effective diameter               | 24.83 mm                           |
| Working stroke                                | 1000 mm                            |
| Size                                          | 45                                 |
| Toothed belt elongation                       | 0.08 %                             |
| Toothed belt pitch                            | 3 mm                               |
| Mounting position                             | Any                                |
| Guide                                         | Recirculating ball bearing guide   |
| Structural design                             | with toothed belt                  |
| Motor type                                    | Stepper motor<br>Servo motor       |
| Symbol                                        | 00991212                           |
| Max. acceleration                             | 50 m/s <sup>2</sup>                |
| Max. speed                                    | 1 m/s ... 3 m/s                    |
| Repetition accuracy                           | ±0.1 mm                            |
| Duty cycle                                    | 100%                               |
| LABS (PWIS) conformity                        | VDMA24364 zone III                 |
| Degree of protection                          | IP20                               |
| Ambient temperature                           | -10 °C ... 50 °C                   |
| 2nd moment of area Iy                         | 15700 mm <sup>4</sup>              |
| 2nd moment of area Iz                         | 17940 mm <sup>4</sup>              |
| Max. driving torque                           | 1.24 Nm                            |
| Max. force Fy                                 | 100 N                              |
| Max. force Fz                                 | 100 N                              |
| Max. no-load resistance to shifting           | 16.1 N                             |
| Max. feed force Fx                            | 100 N                              |
| No-load driving torque                        | 0.2 Nm                             |
| Mass moment of inertia JH per meter of stroke | 0.11 kgcm <sup>2</sup>             |
| Mass moment of inertia JL per kg of payload   | 1.54 kgcm <sup>2</sup>             |
| Feed constant                                 | 78 mm/U                            |
| Reference service life                        | 5000 km                            |
| Additional moving mass per 10 mm stroke       | 0.69 g                             |
| Product weight                                | 8230 g                             |
| Additional weight per 10 mm stroke            | 50 g                               |
| Profile material                              | Wrought aluminum alloy<br>Anodized |
| Note on materials                             | RoHS-compliant                     |

| Feature                                  | Value                                                                     |
|------------------------------------------|---------------------------------------------------------------------------|
| Drive cover material                     | Wrought aluminum alloy<br>Anodized                                        |
| Belt pulley material                     | High-alloy stainless steel                                                |
| Slide material                           | Wrought aluminum alloy<br>Anodized                                        |
| Toothed belt clamping component material | Beryllium bronze                                                          |
| Toothed belt material                    | Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating |