

# Belt driven linear actuator ELGR-TB-55-500-0H

Part number: 8083788

**FESTO**



## Data sheet

| Feature                                       | Value                                              |
|-----------------------------------------------|----------------------------------------------------|
| Drive pinion effective diameter               | 28.65 mm                                           |
| Working stroke                                | 500 mm                                             |
| Size                                          | 55                                                 |
| Toothed belt elongation                       | 0.21 %                                             |
| Toothed belt pitch                            | 3 mm                                               |
| Mounting position                             | Any                                                |
| Guide                                         | Recirculating ball bearing                         |
| Structural design                             | Electromechanical linear axis<br>With toothed belt |
| Motor type                                    | Stepper motor<br>Servo motor                       |
| Max. acceleration                             | 50 m/s <sup>2</sup>                                |
| Max. speed                                    | 0.35 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                         | 38300 mm <sup>4</sup>                              |
| 2nd moment of area Iz                         | 41180 mm <sup>4</sup>                              |
| Max. driving torque                           | 5 Nm                                               |
| Max. force Fy                                 | 300 N                                              |
| Max. force Fz                                 | 300 N                                              |
| Max. no-load resistance to shifting           | 27.9 N                                             |
| Max. feed force Fx                            | 350 N                                              |
| No-load driving torque                        | 0.4 Nm                                             |
| Mass moment of inertia JH per meter of stroke | 0.19 kgcm <sup>2</sup>                             |
| Mass moment of inertia JL per kg of payload   | 2.05 kgcm <sup>2</sup>                             |
| Feed constant                                 | 90 mm/U                                            |
| Reference service life                        | 5000 km                                            |
| Additional moving mass per 10 mm stroke       | 0.92 g                                             |
| Product weight                                | 9340 g                                             |

| Feature                                  | Value                                                                     |
|------------------------------------------|---------------------------------------------------------------------------|
| Additional weight per 10 mm stroke       | 78 g                                                                      |
| Profile material                         | Wrought aluminum alloy<br>Anodized                                        |
| Note on materials                        | RoHS compliant                                                            |
| 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 copper                                                          |
| Toothed belt material                    | Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating |