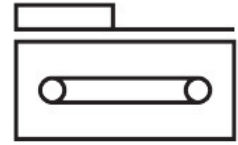
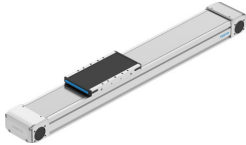


# Toothed belt axis ELGD-TB-KF-WD-100-300-0H-L-PU2

Part number: 8192375

**FESTO**



## Data sheet

| Feature  | Value   |
|--|---|
| Drive pinion effective diameter                    | 26.74 mm  |
| Working stroke                                     | 300 mm  |
| Size   | 100   |
| Stroke reserve                                     | 0 mm  |
| Toothed belt pitch                                 | 3 mm  |
| Mounting position                                  | Any   |
| Guide  | Recirculating ball bearing guide  |
| Structural design                                  | Electromechanical linear axis with toothed belt   |
| Motor type   | Stepper motor<br>Servo motor  |
| Measuring principle of linear potentiometer        | Incremental   |
| Position sensing                                   | For inductive proximity sensors   |
| Max. acceleration                                  | 50 m/s <sup>2</sup>   |
| Max. speed   | 3 m/s   |
| Repetition accuracy                                | ±0.04 mm  |
| Duty cycle   | 100%  |
| LABS (PWIS) conformity                             | VDMA24364 zone III  |
| Suitability for the production of Li-ion batteries | Product corresponds to Festo's internal product definition for use in battery production: Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils |
| Degree of protection                               | IP40  |
| Ambient temperature                                | 0 °C...60 °C  |
| Impact energy in the end positions                 | 0.75 mJ   |
| Note on the impact energy in the end positions     | At maximum speed of the reference run of 0.01 m/s   |
| 2nd moment of area Iy                              | 347100 mm <sup>4</sup>  |
| 2nd moment of area Iz                              | 2268000 mm <sup>4</sup>   |
| Max. driving torque                                | 3.2 Nm  |
| Max. force Fy                                      | 4376 N  |
| Max. force Fz                                      | 4286 N  |
| Max. force Fy total axis                           | 3236 N  |

| Feature  | Value                                |
|--|--------------------------------------|
| Max. force Fz total axis   | 2250 N                               |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 18415 N                              |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 18415 N                              |
| Max. no-load resistance to shifting  | 29.9 N                               |
| Max. torque Mx   | 130 Nm                               |
| Max. torque My   | 200 Nm                               |
| Max. torque Mz   | 200 Nm                               |
| Max. moment Mx total axis  | 160 Nm                               |
| Max. moment My total axis  | 191 Nm                               |
| Max. moment Mz total axis  | 200 Nm                               |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 645 Nm                               |
| My with theoretical service life of 100 km (from a guide perspective only) | 720 Nm                               |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 720 Nm                               |
| Distance between slide surface and guide center                            | 47 mm                                |
| Max. feed force Fx   | 240 N                                |
| Torsion moment of inertia It   | 108900 mm <sup>4</sup>               |
| Mass moment of inertia JH per meter of stroke                              | 0.2252 kgcm <sup>2</sup>             |
| Mass moment of inertia JL per kg of payload                                | 1.7876 kgcm <sup>2</sup>             |
| Mass moment of inertia JO  | 2.9542 kgcm <sup>2</sup>             |
| Feed constant  | 84 mm/U                              |
| Reference service life   | 5000 km                              |
| Maintenance interval   | Life-time lubrication                |
| Moving mass  | 1360 g                               |
| Product weight   | 3864 g                               |
| Basic weight with 0 mm stroke  | 3864 g                               |
| Additional weight per 10 mm stroke   | 55 g                                 |
| Dynamic deflection (load moved)  | 0.05% of axis length, maximum 0.5 mm |
| Static deflection (load at standstill)                                     | 0.1 % of axis length                 |
| Interface code, actuator   | L38                                  |
| Material of end caps   | Aluminum gravity die-cast, painted   |
| Profile material   | Wrought aluminum alloy, anodized     |
| Note on materials  | RoHS-compliant                       |
| Cover strip material   | High-alloy stainless steel           |
| Drive cover material   | Aluminum gravity die-cast, painted   |
| Slide carriage material  | Steel                                |
| Guide rail material  | Steel                                |
| Belt pulley material   | High-alloy stainless steel           |
| Slide material   | Wrought aluminum alloy               |
| Toothed belt material  | Polyurethane with steel cord         |