# Belt driven linear actuator
# ELGA-TB-G-70- -

Part number: 570502

## Data sheet

| Feature | Value |
|---|---|
| Drive pinion effective diameter | 28.65 mm |
| Working stroke | 50 mm...8500 mm |
| Size | 70 |
| Toothed belt pitch | 3 mm |
| Mounting position | Any |
| Guide | Sliding guide |
| Structural design | Electromechanical linear axis<br>with toothed belt |
| Motor type | Stepper motor<br>Servo motor |
| Max. acceleration | 50 m/s² |
| Max. speed | 5 m/s |
| Repetition accuracy | ±0.08 mm |
| Duty cycle | 100% |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Degree of protection | IP40 |
| Ambient temperature | -10 °C...60 °C |
| 2nd moment of area Iy | 147000 mm⁴ |
| 2nd moment of area Iz | 425000 mm⁴ |
| Max. driving torque | 5 Nm |
| Max. force Fy | 80 N |
| Max. force Fz | 400 N |
| Max. force Fy total axis | 80 N |
| Max. force Fz total axis | 400 N |
| Max. no-load resistance to shifting | 35 N |
| Max. torque Mx | 5 Nm |
| Max. torque My | 30 Nm |
| Max. torque Mz | 10 Nm |
| Max. moment Mx total axis | 5 Nm |
| Max. moment My total axis | 30 Nm |
| Max. moment Mz total axis | 10 Nm |
| Max. feed force Fx | 350 N |

| Feature | Value |
|---|---|
| No-load driving torque | 0.5 Nm |
| Torsion moment of inertia It | 71500 $mm^4$ |
| Mass moment of inertia JH per meter of stroke | 0.019 $kgcm^2$ |
| Mass moment of inertia JL per kg of payload | 2.05 $kgcm^2$ |
| Mass moment of inertia JO | 1.75 $kgcm^2$ |
| Feed constant | 90 mm/U |
| Reference service life | 5000 km |
| Slide weight | 0.57 kg |
| Basic weight with 0 mm stroke | 2160 g |
| Additional weight per 10 mm stroke | 26.4 g |
| Dynamic deflection (load moved) | 0.05% of axis length, maximum 0.5 mm |
| Static deflection (load at standstill) | 0.1 % of axis length |
| Profile material | Wrought aluminum alloy, anodized |
| Note on materials | RoHS-compliant |
| Cover strip material | Stainless steel strip |
| Drive cover material | Wrought aluminum alloy, anodized |
| Slide carriage material | POM |
| Guide rail material | Wrought aluminum alloy, anodized |
| Belt pulley material | High-alloy stainless steel |
| Slide material | Wrought aluminum alloy, anodized |
| Toothed belt clamping component material | Cast stainless steel |
| Toothed belt material | Polyurethane with steel cord and nylon cover<br>Polychloroprene oder Nitrilkautschuk (NBR) mit Glascord und Nylonüberzug |