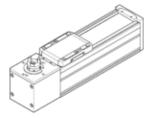
## Toothed belt axis **ELGC-TB-KF-80-1500** Part number: 8062793



## Data sheet

| Feature  | Value                               |
|--|-------------------------------------|
| Effective diameter of drive pinion   | 33.42 mm                            |
| Working stroke   | 1,500 mm                            |
| Size   | 80                                  |
| Stroke reserve   | 0 mm                                |
| Toothed-belt stretch   | 0.2 %                               |
| Toothed-belt pitch   | 3 mm                                |
| Assembly position  | Any                                 |
| Guide  | Recirculating ball bearing guide    |
| Design structure   | Electromechanical linear axis       |
|  | With toothed belt                   |
| Motor type   | Stepper motor                       |
|  | Servomotor                          |
| Measuring method: displacement encoder   | Incremental                         |
| Position detection   | For proximity sensor                |
|  | For inductive sensors               |
| Max. acceleration  | 15 m/s2                             |
| Max. speed   | 1.5 m/s                             |
| Repetition accuracy  | ±0,1 mm                             |
| Duty cycle   | 100 %                               |
| PWIS conformity  | VDMA24364 zone III                  |
| RSBP classification to CD-0033   | F1a                                 |
| Cleanroom class  | ISO class 7                         |
| Protection class   | IP40                                |
| Ambient temperature  | 0 50 °C                             |
| Impact energy in end positions   | 0.75 mJ                             |
| Note on the impact energy it the end positions   | At maximum homing speed of 0.01 m/s |
| Area moment of inertia 2nd degree ly   | 1,370E+03 mm4                       |
| Area moment of inertia 2nd degree Iz   | 1,660E+03 mm4                       |
| Max. drive torque  | 4.178 Nm                            |
| Max. force Fy  | 900 N                               |
| Max. force Fz  | 2,700 N                             |
|  | 5,543 N                             |
|  | 5,543 N                             |
| Fy with theoretical service life of 100 km (from a guide perspective only)   | 20,400 N                            |
| Fz with theoretical service life of 100 km (from a guide perspective only)   | 20,400 N                            |
| Max. idling displacement resistance  | 24.7 N                              |
| Max. torque Mx   | 59.8 Nm                             |
| Max. torque My   | 56.2 Nm                             |
| Max. torque Mz   | 56.2 Nm                             |
|  |                                     |
| Mx for the guide calculation for a service life of 5000 km or 5 million cycles<br>My for the guide calculation for a service life of 5000 km or 5 million cycles |                                     |
|  |                                     |
| · · · · · · · · · · · · · · · · · · ·  | 56.2 Nm                             |
| Mx with theoretical service life of 100 km (from a guide perspective only  | 220 Nm                              |
| My with theoretical service life of 100 km (from a guide perspective only)   | 207 Nm                              |
| Mz with theoretical service life of 100 km (from a guide perspective only)   | 207 Nm                              |
| Distance between the slide surface and the centre of the guide   | 72.5 mm                             |

## **FESTO**



## FESTO

| Feature  | Value                                 |  |
|--|---------------------------------------|--|
| Max. feed force Fx                               | 250 N                                 |  |
| No-load driving torque                           | 0.413 Nm                              |  |
| Torsional mass moment of inertia It              | 90.5E+03 mm4                          |  |
| Mass moment of inertia JH per meter of stroke    | 0.1927 kgcm2                          |  |
| Mass moment of inertia JL per kg of working load | 2.793 kgcm2                           |  |
| Mass moment of inertia, JO                       | 2.912 kgcm2                           |  |
| Feed constant                                    | 105 mm/U                              |  |
| Maintenance interval                             | Life-time lubrication                 |  |
| Moving mass                                      | 901 g                                 |  |
| Moving mass with 0 mm stroke                     | 901 g                                 |  |
| Slide weight                                     | 272 g                                 |  |
| Product weight                                   | 14,426 g                              |  |
| Basic weight for 0 mm stroke                     | 3,500 g                               |  |
| Additional weight per 10 mm stroke               | 73 g                                  |  |
| Dynamic deflection (load moved)                  | 0.05% of the axis length, max. 0.5 mm |  |
| Static deflection (load at standstill)           | 0.1% of the axis length               |  |
| Interface code, actuator                         | T46                                   |  |
| Material of end caps                             | Die-cast aluminium, painted           |  |
| Material of profile                              | Anodised wrought aluminium alloy      |  |
| Materials note                                   | Conforms to RoHS                      |  |
| Material cover tape                              | Stainless steel strip                 |  |
| Material drive cover                             | Die-cast aluminium, painted           |  |
| Material guide slide                             | Heat-treatment steel                  |  |
| Material guide rail                              | Heat-treatment steel                  |  |
| Material pulleys                                 | High alloy steel, non-corrosive       |  |
| Material slide                                   | Aluminum die cast                     |  |
| Material toothed belt                            | Polychloroprene with glass fibers     |  |