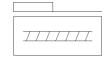
## Spindle axis ELGT-BS-90-900-20P Part number: 8124434







## **Data sheet**

| Feature  | Value   |
|--|---|
| Working stroke   | 900 mm  |
| Size   | 90  |
| Stroke reserve   | 0 mm  |
| Reversing backlash   | <= 0.15 μm  |
| Spindle diameter   | 15 mm   |
| Spindle pitch  | 20 mm/U   |
| Assembly position  | Any   |
| Guide  | Recirculating ball bearing guide                                      |
| Design structure   | Electromechanical linear axis   |
|  | with recirculating ball bearing spindle                               |
| Motor type   | Stepper motor   |
|  | Servomotor  |
| Spindle type   | Ball screw actuator   |
| Variants   | Recommended for production facilities for the manufacture of lithium- |
|  | ion batteries   |
| Max. acceleration  | 15 m/s2   |
| Max. speed   | 3,000 1/min   |
|  | 1 m/s   |
| Repetition accuracy  | ±0,02 mm  |
| Duty cycle   | 100 %   |
| PWIS conformity  | VDMA24364 zone III  |
| RSBP classification to CD-0033   | F1a   |
| Cleanroom class  | ISO class 6   |
| Protection class   | IP20  |
| Ambient temperature  | 0 50 °C   |
| Permanent feed force   | 810 N   |
| Area moment of inertia 2nd degree ly   | 631E+03 mm4   |
| Area moment of inertia 2nd degree Iz   | 1,948E+03 mm4   |
| No-load torque at maximum travel speed   | 0.2 Nm  |
| No-load torque at minimum travel speed   | 0.04 Nm   |
| Max. force Fy  | 4,710 N   |
| Max. force Fz  | 5,600 N   |
| Fy with theoretical service life of 100 km (from a guide perspective only)   | 17,352 N  |
| Fz with theoretical service life of 100 km (from a guide perspective only)   | 20,631 N  |
| Max. torque Mx   | 65 Nm   |
| Max. torque My   | 51 Nm   |
| Max. torque Mz   | 51 Nm   |
| Mx with theoretical service life of 100 km (from a guide perspective only  | 239 Nm  |
| My with theoretical service life of 100 km (from a guide perspective only)   | 188 Nm  |
|  | 188 Nm  |
| Max. radial force at drive shaft   | 290 N   |
| Max. feed force Fx   |   |
| Torsional mass moment of inertia It  |   |
|  |   |
|  |   |
|  |   |
| Fz with theoretical service life of 100 km (from a guide perspective only)  Max. torque Mx  Max. torque My  Max. torque Mz  Mx with theoretical service life of 100 km (from a guide perspective only)  My with theoretical service life of 100 km (from a guide perspective only)  Mz with theoretical service life of 100 km (from a guide perspective only)  Max. radial force at drive shaft  Max. feed force Fx | 20,631 N<br>65 Nm<br>51 Nm<br>51 Nm<br>239 Nm<br>188 Nm               |



| Feature                                | Value                                 |  |
|--|---------------------------------------|--|
| Feed constant                          | 20 mm/U                               |  |
| Moving mass                            | 1,645 g                               |  |
| Product weight                         | 13,562 g                              |  |
| Basic weight for 0 mm stroke           | 4,353 g                               |  |
| Additional weight per 10 mm stroke     | 104 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 drive cover                   | Die-cast aluminium, painted           |  |
| Material guide slide                   | Steel                                 |  |
| Material guide rail                    | Steel                                 |  |
| Material slide                         | Anodised wrought aluminium alloy      |  |
| Material spindle nut                   | Steel                                 |  |
| Material spindle                       | Steel                                 |  |