

# mini slide unit

## EGSS-BS-KF-32-100-8P-ST-M-H1-PLK-AA

Part number: 8083804

FESTO



### Data sheet

| Feature                                     | Value   |
|---|---|
| Working stroke                              | 100 mm  |
| Size  | 32  |
| Stroke reserve                              | 0 mm  |
| Reversing backlash                          | 150 µm  |
| Spindle diameter                            | 8 mm  |
| Spindle pitch                               | 8 mm/U  |
| Assembly position                           | Any   |
| Guide                                       | Recirculating ball bearing guide                                |
| Design structure                            | Electric mini slide<br>With ball screw<br>With integrated drive |
| Motor type                                  | Stepper motor   |
| Referencing                                 | Fixed stop block positive<br>Fixed stop block negative          |
| Spindle type                                | Ball screw  |
| Position detection                          | Motor encoder<br>For proximity sensor                           |
| Rotor position sensor                       | Absolute single turn encoder                                    |
| Rotary position encoder measuring principle | Magnetic  |
| Protective function                         | Temperature monitoring  |
| Additional functions                        | User interface<br>Integrated end-position sensing               |
| Display                                     | LED   |
| Ready status display                        | LED   |
| Max. acceleration                           | 5 m/s <sup>2</sup>  |
| Max. speed                                  | 0.19 m/s  |
| Speed "Speed press"                         | 0.01 m/s  |
| Repetition accuracy                         | ±0,015 mm   |
| Digital logic output characteristics        | configurable<br>Not electrically isolated                       |
| Duty cycle                                  | 100 %   |
| Insulation protection class                 | B   |
| Max. current, digital logic outputs         | 100 mA  |
| Max. current consumption                    | 3 A   |
| Max. current consumption, logic             | 300 mA  |
| Nominal voltage DC                          | 24 V  |
| Nominal current                             | 3 A   |
| Parameters configuring interface            | IO-Link<br>User interface                                       |
| Rotor position encoder resolution           | 16 Bit  |
| Permissible voltage fluctuation             | +/- 15 %  |
| Power supply, type of connection            | Plug  |
| Power supply, connection technology         | M12x1, T-coded to EN 61076-2-111                                |
| Power supply, number of pins/wires          | 4   |
| Authorisation                               | RCM Mark  |
| KC mark                                     | KC-EMV  |

| <b>Feature</b>   | <b>Value</b>   |
|--|--|
| CE mark (see declaration of conformity)  | to EU directive for EMC<br>in accordance with EU RoHS directive                      |
| UKCA marking (see declaration of conformity)   | To UK instructions for EMC<br>To UK RoHS instructions                                |
| Vibration resistance   | Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6 |
| Shock resistance   | Shock test with severity level 1 in accordance with FN 942017-5 and EN 60068-2-27    |
| Corrosion resistance classification CRC  | 0 - No corrosion stress  |
| PWIS conformity  | VDMA24364 zone III   |
| Cleanroom class  | ISO class 9  |
| Storage temperature  | -20 ... 60 °C  |
| Relative air humidity  | 0 - 90 %   |
| Protection class   | IP40   |
| Safety class   | III  |
| Ambient temperature  | 0 ... 50 °C  |
| Note on ambient temperature  | Above an ambient temperature of 30 °C, the power must be reduced by 2% per K.        |
| Fixed bearing dynamic basic load rating  | 3,795 N  |
| Linear guide dynamic basic load rating   | 2,135 N  |
| Ball screw drive dynamic basic load rating   | 2,000 N  |
| Max. force F <sub>y</sub>  | 991 N  |
| Max. force F <sub>z</sub>  | 991 N  |
| F <sub>y</sub> with theoretical service life of 100 km (from a guide perspective only) | 2,135 N  |
| F <sub>z</sub> with theoretical service life of 100 km (from a guide perspective only) | 2,135 N  |
| Max. torque M <sub>x</sub>   | 3.4 Nm   |
| Max. torque M <sub>y</sub>   | 3.17 Nm  |
| Max. torque M <sub>z</sub>   | 3.17 Nm  |
| M <sub>x</sub> with theoretical service life of 100 km (from a guide perspective only) | 10 Nm  |
| M <sub>y</sub> with theoretical service life of 100 km (from a guide perspective only) | 7 Nm   |
| M <sub>z</sub> with theoretical service life of 100 km (from a guide perspective only) | 7 Nm   |
| Max. radial force at drive shaft   | 140 N  |
| Max. feed force F <sub>x</sub>   | 60 N   |
| Reference value for working load, horizontal   | 2 kg   |
| Reference value for working load, vertical   | 2 kg   |
| Ball screw drive statistical basic load rating   | 3,700 N  |
| Linear guide statistical basic load rating   | 3,880 N  |
| Feed constant  | 8 mm/U   |
| Fixed bearing statistical basic load rating  | 1,792 N  |
| Reference value, running performance   | 5,000 km   |
| Maintenance interval   | Life-time lubrication  |
| Moving mass with 0 mm stroke   | 149 g  |
| Additional mass factor per 10 mm of stroke   | 12 g   |
| Product weight   | 1,225 g  |
| Basic weight for 0 mm stroke   | 924 g  |
| Additional weight per 10 mm stroke   | 30 g   |
| Number of 24 V DC digital logic outputs  | 2  |
| Number of digital logic inputs   | 2  |
| Specification, logic input   | Based on IEC 61131-2, type 1   |
| Logic input working range  | 24 V   |
| IO-Link, SIO mode support  | Yes  |
| Logic input characteristics  | configurable<br>Not electrically isolated  |
| IO-Link, protocol  | Device V 1.1   |
| IO-Link, communication mode  | COM3 (230.4 kbd)   |
| IO-Link, port type   | A  |
| IO-Link, number of ports   | 1  |
| IO-Link, process data width OUT  | 2 Byte   |
| IO-Link, process data content OUT  | 1 bit (Move in)<br>1 bit (Move out)<br>1 bit (Quit Error)                            |

| <b>Feature</b>                         | <b>Value</b>  |
|--|---|
|  | 1 bit (Move Intermediate)   |
| IO-Link, process data width IN         | 2 Byte  |
| IO-Link, process data content IN       | 1 bit (State Device)<br>1 bit (State Intermediate)<br>1 bit (State Move)<br>1 bit (State in)<br>1 bit (State out) |
| IO-Link, Service data contents IN      | 32 bit Force<br>32 bit Position<br>32 bit Speed   |
| IO-Link, minimum cycle time            | 1 ms  |
| IO-Link, data memory required          | 0.5 Kilobyte  |
| Max. line length                       | 15 m outputs<br>15 m inputs<br>20 m with IO-Link operation  |
| Switching logic, outputs               | PNP (positive-switching)  |
| Input circuit logic                    | PNP (positive-switching)  |
| IO-Link, connection technology         | Plug  |
| Logic interface, connection type       | Plug  |
| Logic interface, connection technology | M12x1, A-coded in accordance with EN 61076-2-101  |
| Logic interface, number of poles/wires | 8   |
| Logic interface, connection pattern    | 00992264  |
| Mounting type                          | with internal (female) thread<br>with centring sleeve<br>with accessories<br>With cylindrical dowel pin           |
| Materials note                         | Conforms to RoHS  |
| Material guide slide                   | Roller bearing steel  |
| Material guide rail                    | Roller bearing steel  |
| Material housing                       | Anodised wrought aluminium alloy  |
| Material yoke plate                    | Anodised wrought aluminium alloy  |
| Material piston rod                    | High alloy steel, non-corrosive   |
| Material slide                         | Anodised wrought aluminium alloy  |
| Material spindle nut                   | Roller bearing steel  |
| Material spindle                       | Roller bearing steel  |