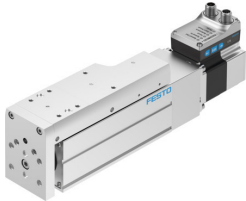


# Mini slide unit EGSS-BS-KF-60-75-12P-ST-M-H1-PLK-AA

Part number: 8083717

**FESTO**



[PDF](#) General operating condition

## Data sheet

| Feature                                            | Value                                                                 |
|----------------------------------------------------|-----------------------------------------------------------------------|
| Working stroke                                     | 75 mm                                                                 |
| Size                                               | 60                                                                    |
| Stroke reserve                                     | 0 mm                                                                  |
| Reversing backlash theoretical                     | 150 µm                                                                |
| Spindle diameter                                   | 12 mm                                                                 |
| Spindle pitch                                      | 12 mm/U                                                               |
| Mounting position                                  | optional                                                              |
| Guide                                              | Recirculating ball bearing guide                                      |
| Design                                             | Electric mini slide<br>With ball screw drive<br>With integrated drive |
| Type of motor                                      | Stepper motor                                                         |
| Referencing                                        | Positive fixed stop block<br>Negative fixed stop block                |
| Spindle type                                       | Ball screw drive                                                      |
| Symbol                                             | 00997294                                                              |
| Position detection                                 | Motor encoder<br>Via proximity switch                                 |
| Rotor position sensor                              | Absolute single-turn encoder                                          |
| Rotor position sensor, encoder measuring principle | Magnetic                                                              |
| Protective function                                | Temperature monitoring                                                |
| Additional functions                               | User interface<br>Integrated end-position sensing                     |
| Display                                            | LED                                                                   |
| Ready status indication                            | LED                                                                   |
| Max. acceleration                                  | 5 m/s <sup>2</sup>                                                    |
| Max. speed                                         | 0.24 m/s                                                              |
| Speed "Speed press"                                | 0.01 m/s                                                              |
| Repetition accuracy                                | ±0.015 mm                                                             |
| Features of digital logic outputs                  | Configurable<br>Not galvanically isolated                             |
| Duty cycle                                         | 100%                                                                  |
| Insulation protection class                        | B                                                                     |
| Max. current digital logic outputs                 | 100 mA                                                                |
| Max. current consumption                           | 5300 mA                                                               |
| Max. current consumption, logic                    | 0.3 A                                                                 |
| Nominal voltage DC                                 | 24 V                                                                  |

| Feature                                                           | Value                                                                            |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Nominal current                                                   | 5.3 A                                                                            |
| Parameterisation interface                                        | IO-Link<br>User interface                                                        |
| Rotor position transducer resolution                              | 16 bit                                                                           |
| Permissible voltage fluctuations                                  | +/- 15%                                                                          |
| Power supply, connection type                                     | Plugs                                                                            |
| power supply, connection system                                   | M12x1, T-coded according to EN 61076-2-111                                       |
| Power supply, number of pins/wires                                | 4                                                                                |
| Power supply, connection pattern                                  | 00995989                                                                         |
| Approval                                                          | RCM trademark                                                                    |
| KC mark                                                           | KC-EMV                                                                           |
| CE mark (see declaration of conformity)                           | To EU EMC Directive<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 to FN 942017-4 and EN 60068-2-6 |
| Shock resistance                                                  | Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27                |
| Corrosion resistance class CRC                                    | 0 - No corrosion stress                                                          |
| LABS (PWIS) conformity                                            | VDMA24364 zone III                                                               |
| Cleanroom class                                                   | Class 9 according to ISO 14644-1                                                 |
| Storage temperature                                               | -20 °C ... 60 °C                                                                 |
| Relative air humidity                                             | 0 - 90%                                                                          |
| Degree of protection                                              | IP40                                                                             |
| Protection class                                                  | III                                                                              |
| Ambient temperature                                               | 0 °C ... 50 °C                                                                   |
| Note on ambient temperature                                       | Power must be reduced by 2% per K at ambient temperatures above 30°C.            |
| Dynamic basic load rating fixed bearing                           | 13321 N                                                                          |
| Dynamic basic load rating linear guide                            | 13400 N                                                                          |
| Dynamic basic load rating ball screw                              | 4600 N                                                                           |
| Max. force Fy                                                     | 4937 N                                                                           |
| Max. force Fz                                                     | 4937 N                                                                           |
| Fy at theoretical life value of 100 km (only guide consideration) | 13400 N                                                                          |
| Fz at theoretical life value of 100 km (only guide consideration) | 13400 N                                                                          |
| Max. moment Mx                                                    | 20 Nm                                                                            |
| Max. moment My                                                    | 30 Nm                                                                            |
| Max. moment Mz                                                    | 30 Nm                                                                            |
| Mx at theoretical life value of 100 km (only guide consideration) | 107 Nm                                                                           |
| My at theoretical life value of 100 km (only guide consideration) | 117 Nm                                                                           |
| Mz at theoretical life value of 100 km (only guide consideration) | 117 Nm                                                                           |
| Max. radial force at drive shaft                                  | 420 N                                                                            |
| Max. feed force Fx                                                | 250 N                                                                            |
| Reference value effective load, horizontal                        | 10 kg                                                                            |
| Reference value effective load, vertical                          | 10 kg                                                                            |
| Static basic load rating ball screw                               | 8500 N                                                                           |
| Static basic load rating linear guide                             | 26900 N                                                                          |
| Feed constant                                                     | 12 mm/U                                                                          |
| Static basic load rating fixed bearing                            | 7000 N                                                                           |
| Reference service life                                            | 5000 km                                                                          |
| Maintenance interval                                              | Life-time lubrication                                                            |
| Moving mass for 0 mm stroke                                       | 675 g                                                                            |
| Additional moving mass per 10 mm stroke                           | 40 g                                                                             |
| Product weight                                                    | 3447 g                                                                           |

| Feature                                 | Value                                                                                                             |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Basic weight for 0 mm stroke            | 2735 g                                                                                                            |
| Additional weight per 10 mm stroke      | 95 g                                                                                                              |
| Number of digital logic outputs 24 V DC | 2                                                                                                                 |
| Number of digital logic inputs          | 2                                                                                                                 |
| Specification logic input               | Based on IEC 61131-2, type 1                                                                                      |
| Working range of logic input            | 24 V                                                                                                              |
| IO-Link, SIO-Mode support               | Yes                                                                                                               |
| Features of logic input                 | Configurable<br>Not galvanically isolated                                                                         |
| IO-Link, Protocol version               | Device V 1.1                                                                                                      |
| IO-Link, communication mode             | COM3 (230.4 kBaud)                                                                                                |
| IO-Link, Port class                     | A                                                                                                                 |
| IO-Link, Number of ports                | 1                                                                                                                 |
| IO-Link, Process data length OUT        | 2 bytes                                                                                                           |
| IO-Link, Process data content OUT       | 1-bit (move in)<br>1-bit (move out)<br>1-bit (quit error)<br>1 bit (move intermediate)                            |
| IO-Link, Process data length IN         | 2 bytes                                                                                                           |
| IO-Link, Process data content IN        | 1-bit (state device)<br>1 bit (intermediate state)<br>1-bit (state move)<br>1-bit (state in)<br>1-bit (state out) |
| IO-Link, Service data IN                | 32-bit force<br>32-bit position<br>32-bit speed                                                                   |
| IO-Link, Min. cycle time                | 1 ms                                                                                                              |
| IO-Link, Data storage required          | 500 Byte                                                                                                          |
| Max. cable length                       | 15 m outputs<br>15 m inputs<br>20 m with IO-Link® operation                                                       |
| Switching logic for outputs             | PNP (positive switching)                                                                                          |
| Switching logic for inputs              | PNP (positive switching)                                                                                          |
| IO-Link, connection technology          | Plugs                                                                                                             |
| Logic interface, connection type        | Plug                                                                                                              |
| Logic interface, connection technology  | M12x1, A-coded according to EN 61076-2-101                                                                        |
| Logic interface, number of pins/wires   | 8                                                                                                                 |
| Logic interface, plug pattern           | 00992264                                                                                                          |
| Type of mounting                        | Via female thread<br>Via centring sleeve<br>With accessories<br>Via cylindrical pin                               |
| Note on materials                       | RoHS-compliant                                                                                                    |
| Material guide slide                    | Rolled steel                                                                                                      |
| Material guide rail                     | Rolled steel                                                                                                      |
| Material housing                        | Anodised wrought aluminium alloy                                                                                  |
| Material yoke plate                     | Anodised wrought aluminium alloy                                                                                  |
| Material piston rod                     | High-alloy stainless steel                                                                                        |
| Material slide                          | Anodised wrought aluminium alloy                                                                                  |
| Material spindle nut                    | Rolled steel                                                                                                      |
| Material spindle                        | Rolled steel                                                                                                      |