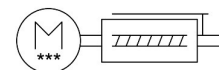
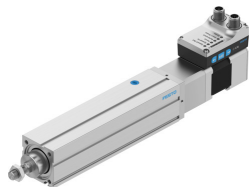


# Electric cylinder unit

## EPCS-BS-45-100-10P-A-ST-M-H1-PLK-AA

Part number: 8118282

FESTO



## Data sheet

| Feature                                   | Value  |
|---|--|
| Size                                      | 45   |
| Stroke                                    | 100 mm   |
| Stroke reserve                            | 0 mm   |
| Piston rod thread                         | M10x1.25   |
| Screw diameter                            | 10 mm  |
| Spindle pitch                             | 10 mm/U  |
| Mounting position                         | Any  |
| Structural design                         | Electric actuator<br>with ball screw drive<br>With integrated drive  |
| Spindle type                              | Ball screw drive   |
| Protection against torsion/guide          | With plain-bearing guide   |
| Rotor position sensor                     | Absolute encoder, single-turn  |
| Rotor position sensor measuring principle | Magnetic   |
| Temperature monitoring                    | Shutdown in the event of over temperature<br>Integrated precise CMOS temperature sensor with analogue output |
| Additional functions                      | User interface<br>Integrated end-position sensing  |
| Display                                   | LED  |
| Max. acceleration                         | 5 m/s <sup>2</sup>   |
| Max. speed                                | 0.23 m/s   |
| Repetition accuracy                       | ±0.02 mm   |
| Characteristics of digital logic outputs  | Configurable<br>Not galvanically isolated  |
| Duty cycle                                | 100%   |
| Insulation protection class               | B  |
| Max. current of digital logic outputs     | 100 mA   |
| Max. current consumption                  | 3 A  |
| Logic max. current consumption            | 0.3 A  |
| DC nominal voltage                        | 24 V   |
| Nominal current                           | 3 A  |
| Parameterization interface                | IO-Link®<br>User interface   |

| Feature                                    | Value   |
|--|---|
| Permissible voltage fluctuations           | +/- 15 %  |
| Power supply, type of connection           | Plug  |
| Power supply, connection technology        | M12x1, T-coded as per EN 61076-2-111  |
| Power supply, number of pins/wires         | 4   |
| Certification                              | RCM compliance mark   |
| CE marking (see declaration of conformity) | As per EU EMC directive<br>As per EU RoHS directive   |
| 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 as per 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 %<br>Non-condensing  |
| Degree of protection                       | IP40  |
| Ambient temperature                        | 0 °C...50 °C  |
| Note on ambient temperature                | Above an ambient temperature of 30°C, the power must be reduced by 2% per K.                            |
| Max. torque Mx                             | 0 Nm  |
| Max. torque My                             | 2.9 Nm  |
| Max. torque Mz                             | 2.9 Nm  |
| Max. radial force on actuator shaft        | 180 N   |
| Max. feed force Fx                         | 250 N   |
| Guide value for payload, horizontal        | 40 kg   |
| Guide value for payload, vertical          | 13 kg   |
| Moving mass at 0 mm stroke                 | 179 g   |
| Additional moving mass per 10 mm stroke    | 4.9 g   |
| Product weight                             | 1595 g  |
| Basic weight with 0 mm stroke              | 1185 g  |
| Additional weight per 10 mm stroke         | 41 g  |
| Number of digital logic outputs 24 V DC    | 2   |
| Number of digital logic inputs             | 2   |
| Work range of logic input                  | 24 V  |
| Characteristics of logic input             | Configurable<br>Not galvanically isolated   |
| IO-Link®, protocol version                 | Device V 1.1  |
| IO-Link®, communication mode               | COM3 (230.4 kBd)  |
| IO-Link®, port class                       | A   |
| IO-Link®, number of ports                  | 1   |
| IO-Link®, process data width OUT           | 2 Byte  |
| IO-Link®, process data content OUT         | Move in 1 bit<br>Move out 1 bit<br>Quit Error 1 bit<br>Move Intermediate 1 bit                          |
| IO-Link®, process data content IN          | State Device 1 bit<br>State In 1 bit<br>State Intermediate 1 bit<br>State Move 1 bit<br>State Out 1 bit |
| 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 KB  |

| Feature                                | Value  |
|--|--|
| Input switching logic                  | NPN (negative switching)<br>PNP (positive switching) |
| Logic interface, connection type       | Plug   |
| Logic interface, connection technology | M12x1, A-coded as per EN 61076-2-101                 |
| Logic interface, number of poles/wires | 8  |
| Type of mounting                       | With internal thread<br>With accessories             |
| Note on materials                      | RoHS-compliant                                       |
| Spindle nut material                   | Steel  |
| Spindle material                       | Roller bearing steel                                 |