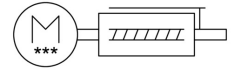
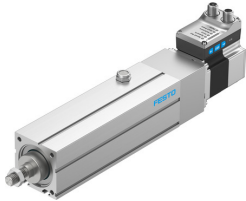


# Electric cylinder unit EPCS-BS-60-100-12P-A-ST-M-H1-PLK-AA

Part number: 8118297

**FESTO**



## Data sheet

| Feature                                  | Value                                                                                |
|------------------------------------------|--------------------------------------------------------------------------------------|
| KC characters                            | KC EMC                                                                               |
| Shock resistance                         | Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27                |
| Max. cable length                        | 15 m outputs<br>15 m inputs<br>20 m for IO-Link® operation                           |
| Display                                  | LED                                                                                  |
| Vibration resistance                     | Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6 |
| Logic input specification                | Based on IEC 61131-2, type 1                                                         |
| Input switching logic                    | NPN (negative switching)<br>PNP (positive switching)                                 |
| Ready status indication                  | LED                                                                                  |
| Parameterization interface               | IO-Link®<br>User interface                                                           |
| Additional functions                     | User interface<br>Integrated end-position sensing                                    |
| Characteristics of logic input           | Configurable<br>Not galvanically isolated                                            |
| Switching logic at outputs               | NPN (negative switching)<br>PNP (positive switching)                                 |
| Note on ambient temperature              | Above an ambient temperature of 30°C, the power must be reduced by 2% per K.         |
| Power supply, connection pattern         | 00995989                                                                             |
| Logic interface, connection pattern      | 00992264                                                                             |
| Characteristics of digital logic outputs | Configurable<br>Not galvanically isolated                                            |
| Power supply, connection technology      | M12x1, T-coded as per EN 61076-2-111                                                 |
| Power supply, type of connection         | Plug                                                                                 |
| Logic interface, connection technology   | M12x1, A-coded as per EN 61076-2-101                                                 |
| Logic interface, connection type         | Plug                                                                                 |
| Max. current of digital logic outputs    | 100 mA                                                                               |
| DC nominal voltage                       | 24 V                                                                                 |
| Number of digital logic outputs 24 V DC  | 2                                                                                    |
| Number of digital logic inputs           | 2                                                                                    |
| Logic interface, number of poles/wires   | 8                                                                                    |
| Power supply, number of pins/wires       | 4                                                                                    |
| Max. current consumption                 | 5300 mA                                                                              |
| Work range of logic input                | 24 V                                                                                 |

| Feature                                      | Value                                                                               |
|----------------------------------------------|-------------------------------------------------------------------------------------|
| Product weight                               | 2984 g                                                                              |
| Rotor position sensor resolution             | 16 bit                                                                              |
| Nominal current                              | 5.3 A                                                                               |
| IO-Link®, SIO mode support                   | Yes                                                                                 |
| IO-Link®, service data contents IN           | 32 bit force<br>32 bit position<br>32 bit speed                                     |
| IO-Link®, process data content IN            | 1 bit (state device)<br>1 bit (state move)<br>1 bit (state in)<br>1 bit (state out) |
| IO-Link®, port class                         | A                                                                                   |
| IO-Link®, process data width IN              | 2 Byte                                                                              |
| IO-Link®, process data width OUT             | 2 Byte                                                                              |
| IO-Link®, minimum cycle time                 | 1 ms                                                                                |
| IO-Link®, protocol version                   | Device V 1.1                                                                        |
| IO-Link®, number of ports                    | 1                                                                                   |
| IO-Link®, process data content OUT           | 1 bit (move in)<br>1 bit (move out)<br>1 bit (quit error)                           |
| IO-Link®, communication mode                 | COM3 (230.4 kBd)                                                                    |
| IO-Link®, data memory required               | 500 byte                                                                            |
| Size                                         | 60                                                                                  |
| Stroke                                       | 100 mm                                                                              |
| Stroke reserve                               | 0 mm                                                                                |
| Piston rod thread                            | M12x1.25                                                                            |
| Reversing backlash                           | 100 µm                                                                              |
| Screw diameter                               | 12 mm                                                                               |
| Spindle pitch                                | 12 mm/U                                                                             |
| Max. angle of rotation of the piston rod +/- | 1 deg                                                                               |
| Type code                                    | EPCS                                                                                |
| Mounting position                            | Any                                                                                 |
| Piston rod end                               | External thread                                                                     |
| Motor type                                   | Stepper motor                                                                       |
| Design                                       | Electric actuator<br>with ball screw drive<br>With integrated drive                 |
| Spindle type                                 | Ball screw drive                                                                    |
| Symbol                                       | 00997294                                                                            |
| Protection against torsion/guide             | With plain-bearing guide                                                            |
| Homing                                       | Fixed stop block positive<br>Fixed stop block, negative<br>Reference switch         |
| Rotor position sensor                        | Absolute encoder, single-turn                                                       |
| Rotor position sensor measuring principle    | Magnetic                                                                            |
| Max. acceleration                            | 5 m/s²                                                                              |
| Max. speed                                   | 0.22 m/s                                                                            |
| Repetition accuracy                          | ±0.02 mm                                                                            |
| Duty cycle                                   | 100%                                                                                |
| Insulation protection class                  | B                                                                                   |
| Permissible voltage fluctuations             | +/- 15 %                                                                            |
| CE marking (see declaration of conformity)   | As per EU EMC directive<br>As per EU RoHS directive                                 |
| Corrosion resistance class (CRC)             | 0 - No corrosion stress                                                             |
| Storage temperature                          | -20 °C ... 60 °C                                                                    |

| Feature                                 | Value                                                          |
|-----------------------------------------|----------------------------------------------------------------|
| Relative air humidity                   | 0 - 90 %<br>Non-condensing                                     |
| Degree of protection                    | IP40                                                           |
| Ambient temperature                     | 0 °C ... 50 °C                                                 |
| Certification                           | RCM compliance mark                                            |
| Max. torque Mx                          | 0 Nm                                                           |
| Max. torque My                          | 6.4 Nm                                                         |
| Max. torque Mz                          | 6.4 Nm                                                         |
| Max. radial force on actuator shaft     | 230 N                                                          |
| Max. feed force Fx                      | 375 N                                                          |
| Guide value for payload, horizontal     | 56 kg                                                          |
| Guide value for payload, vertical       | 18 kg                                                          |
| Moving mass at 0 mm stroke              | 305 g                                                          |
| Additional weight per 10 mm stroke      | 69 g                                                           |
| Basic weight with 0 mm stroke           | 2294 g                                                         |
| Additional moving mass per 10 mm stroke | 6.5 g                                                          |
| Type of mounting                        | With internal thread<br>With accessories                       |
| Note on materials                       | Contains paint-wetting impairment substances<br>RoHS-compliant |
| Housing material                        | Wrought aluminum alloy, smooth-anodized                        |
| Piston rod material                     | High-alloy stainless steel                                     |
| Spindle nut material                    | Steel                                                          |
| Spindle material                        | Roller bearing steel                                           |