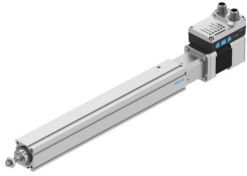


# Electric cylinder unit EPCS-BS-32-200-3P-A-ST-M-H1-PLK-AA

Part number: 8118270

**FESTO**



 [General operating condition](#)

## Data sheet

| Feature                                      | Value                                                                                                        |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Size                                         | 32                                                                                                           |
| Stroke                                       | 200 mm                                                                                                       |
| Stroke reserve                               | 0 mm                                                                                                         |
| Piston rod thread                            | M8                                                                                                           |
| Reversing backlash                           | 100 µm                                                                                                       |
| Screw diameter                               | 8 mm                                                                                                         |
| Spindle pitch                                | 3 mm/U                                                                                                       |
| Max. angle of rotation of the piston rod +/- | 1 deg                                                                                                        |
| Mounting position                            | Any                                                                                                          |
| Piston rod end                               | External thread                                                                                              |
| Motor type                                   | Stepper motor                                                                                                |
| Structural design                            | 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                                                                                                     |
| 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                                                                                                          |
| Ready status indication                      | LED                                                                                                          |
| Max. acceleration                            | 1.5 m/s <sup>2</sup>                                                                                         |
| Max. speed                                   | 0.079 m/s                                                                                                    |
| Speed "Speed Press"                          | 0.01 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                     | 3000 mA                                                                                                      |

| Feature                                      | Value                                                                                |
|----------------------------------------------|--------------------------------------------------------------------------------------|
| Logic max. current consumption               | 0.3 A                                                                                |
| DC nominal voltage                           | 24 V                                                                                 |
| Nominal current                              | 3 A                                                                                  |
| Parameterization interface                   | IO-Link®<br>User interface                                                           |
| Rotor position sensor resolution             | 16 bit                                                                               |
| 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                                                                                    |
| Power supply, connection pattern             | 00995989                                                                             |
| Certification                                | RCM compliance mark                                                                  |
| KC characters                                | KC EMC                                                                               |
| CE marking (see declaration of conformity)   | As per EU EMC directive<br>As per 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 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                                                                                 |
| Protection class                             | III                                                                                  |
| 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                               | 1.5 Nm                                                                               |
| Max. torque Mz                               | 1.5 Nm                                                                               |
| Max. radial force on actuator shaft          | 75 N                                                                                 |
| Max. feed force Fx                           | 150 N                                                                                |
| Guide value for payload, horizontal          | 24 kg                                                                                |
| Guide value for payload, vertical            | 12 kg                                                                                |
| Maintenance interval                         | Life-time lubrication                                                                |
| Moving mass at 0 mm stroke                   | 98 g                                                                                 |
| Additional moving mass per 10 mm stroke      | 3.3 g                                                                                |
| Product weight                               | 1298 g                                                                               |
| Basic weight with 0 mm stroke                | 818 g                                                                                |
| Additional weight per 10 mm stroke           | 24 g                                                                                 |
| Number of digital logic outputs 24 V DC      | 2                                                                                    |
| Number of digital logic inputs               | 2                                                                                    |
| Logic input specification                    | Based on IEC 61131-2, type 1                                                         |
| Work range of logic input                    | 24 V                                                                                 |
| Characteristics of logic input               | Configurable<br>Not galvanically isolated                                            |
| IO-Link®, SIO mode support                   | Yes                                                                                  |
| 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                                                                                    |

| Feature                                | Value                                                                                                   |
|----------------------------------------|---------------------------------------------------------------------------------------------------------|
| 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 width IN        | 2 Byte                                                                                                  |
| 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         | 500 byte                                                                                                |
| Max. cable length                      | 15 m outputs<br>15 m inputs<br>20 m for IO-Link® operation                                              |
| Switching logic at outputs             | NPN (negative switching)<br>PNP (positive switching)                                                    |
| 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                                                                                                       |
| Logic interface, connection pattern    | 00992264                                                                                                |
| Type of mounting                       | With internal thread<br>With accessories                                                                |
| Note on materials                      | 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                                                                                    |