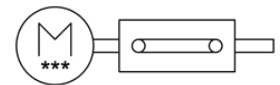
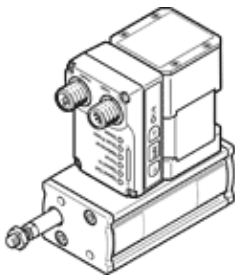


electric cylinder unit

EPCE-TB-45-50-FL-ST-M-H1-PLK-AA

Part number: 8101542

FESTO



Data sheet

| Feature | Value |
|---|---|
| Effective diameter of drive pinion | 10.18 mm |
| Size | 45 |
| Stroke | 50 mm |
| Stroke reserve | 0 mm |
| Piston rod thread | M6 |
| Toothed-belt stretch | 0.31 % |
| Toothed-belt pitch | 2 mm |
| Assembly position | Any |
| Piston-rod end | Male thread |
| Motor type | Stepper motor |
| Position detection | Motor encoder |
| Design structure | Electric cylinder With toothed belt With integrated drive |
| Protection against torque/guide | with plain-bearing guide |
| Referencing | Fixed stop block positive Fixed stop block negative |
| Rotor position sensor | Absolute single turn encoder |
| Rotary position encoder measuring principle | Magnetic |
| Temperature monitoring | Shutdown at over-temperature Integrated precise CMOS temperature sensor with analogue output |
| Additional functions | User interface Integrated end-position sensing |
| Display | LED |
| Ready status display | LED |
| Max. acceleration | 9 m/s ² |
| Max. speed | 0.44 m/s |
| Speed "Speed press" | 0.02 m/s |
| Repetition accuracy | ±0,05 mm |
| Digital logic output characteristics | configurable 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 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 |

| Feature | Value |
|--|---|
| KC mark | KC-EMV |
| CE mark (see declaration of conformity) | to EU directive for EMC in accordance with EU RoHS directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC 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 |
| 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. |
| Impact energy in end positions | 0.003 J |
| Max. torque Mx | 0 Nm |
| Max. torque My | 0.4 Nm |
| Max. torque Mz | 0.4 Nm |
| Max. feed force Fx | 85 N |
| Reference value for working load, horizontal | 5 kg |
| Reference value for working load, vertical | 2.5 kg |
| Feed constant | 32 mm/U |
| Reference value, running performance | 500 km |
| Maintenance interval | Life-time lubrication |
| Moving mass | 106 g |
| Moving mass with 0 mm stroke | 83 g |
| Additional mass factor per 10 mm of stroke | 4.55 g |
| Product weight | 922 g |
| Basic weight for 0 mm stroke | 775 g |
| Additional weight per 10 mm stroke | 29 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 |
| Logic input characteristics | configurable Not electrically isolated |
| IO-Link, SIO mode support | Yes |
| 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 | Move in 1 bit Move out 1 bit Quit Error 1 bit Move Intermediate 1 bit |
| IO-Link, process data width IN | 2 Byte |
| IO-Link, process data content IN | State In 1 bit State Out 1 bit State Move 1 bit State Device 1 bit State Intermediate 1 bit |
| IO-Link, Service data contents IN | Speed 32 bit Position 32 bit Force 32 bit |
| IO-Link, minimum cycle time | 1 ms |
| IO-Link, data memory required | 0.5 Kilobyte |

| Feature | Value |
|--|--|
| Max. line length | 15 m outputs 15 m inputs 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 with accessories |
| Materials note | Conforms to RoHS |
| Material cover | Anodised wrought aluminium alloy |
| Material housing | Anodised wrought aluminium alloy |
| Material piston rod | High alloy steel, non-corrosive |
| Material toothed belt | Polychloroprene with glass fibres |