

Electric cylinder unit EPCE-TB-60-20-FL-ST-M-H1-PLK-AA

Part number: 8102162

FESTO



[PDF](#) [General operating condition](#)

Data sheet

| Feature | Value |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Effective diameter of drive pinion | 10.18 mm |
| Size | 60 |
| Stroke | 20 mm |
| Stroke reserve | 0 mm |
| Piston rod thread | M10x1.25 |
| Toothed-belt stretch | 0.375 % |
| Toothed-belt pitch | 2 mm |
| Mounting position | optional |
| Piston-rod end | Male thread |
| Type of motor | Stepper motor |
| Position detection | Motor encoder |
| Design | With toothed belt With integrated drive |
| Symbol | 00997342 |
| Protection against torque/guide | With plain-bearing guide |
| Referencing | Positive fixed stop block Negative fixed stop block |
| Rotor position sensor | Absolute single-turn encoder |
| Rotor position sensor, encoder measuring principle | Magnetic |
| Temperature monitoring | Switch-off for excessive temperature Integrated precise CMOS temperature sensor with analogue output |
| Additional functions | Integrated end-position sensing |
| Display | LED |
| Ready status indication | LED |
| Max. acceleration | 9 m/s ² |
| Max. speed | 0.6 m/s |
| Speed "Speed press" | 0.02 m/s |
| Repetition accuracy | ±0.05 mm |
| Features of digital logic outputs | Configurable 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 |
| Nominal current | 5.3 A |

| Feature | Value |
|----------------------------------------------|----------------------------------------------------------------------------------|
| Parameterisation interface | IO-Link 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 In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity) | 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 |
| 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. |
| Impact energy in end positions | 0.016 J |
| Max. moment Mx | 0 Nm |
| Max. moment My | 1 Nm |
| Max. moment Mz | 1 Nm |
| Max. feed force Fx | 150 N |
| Reference value effective load, horizontal | 10 kg |
| Reference value effective load, vertical | 5 kg |
| Feed constant | 32 mm/U |
| Reference service life | 200 km |
| Maintenance interval | Life-time lubrication |
| Moving mass | 208 g |
| Moving mass for 0 mm stroke | 188 g |
| Additional moving mass per 10 mm stroke | 9.75 g |
| Product weight | 1442 g |
| Basic weight for 0 mm stroke | 1350 g |
| Additional weight per 10 mm stroke | 46 g |
| Number of digital logic outputs 24 V DC | 2 |
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| Specification logic input | Based on IEC 61131-2, type 1 |
| Working range of logic input | 24 V |
| Features of logic input | Configurable Not galvanically isolated |
| IO-Link, SIO-Mode support | Yes |
| 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 |

| Feature | Value |
|----------------------------------------|---------------------------------------------------------------------------------------------------------|
| 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 length IN | 2 bytes |
| IO-Link, Process data content IN | State Device 1 bit State In 1 bit State Intermediate 1 bit State Move 1 bit State Out 1 bit |
| IO-Link, Service data IN | Speed 32 bit Position 32 bit Force 32 bit |
| IO-Link, Min. cycle time | 1 ms |
| IO-Link, Data storage required | 500 Byte |
| Max. cable length | 15 m outputs 15 m inputs 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 With accessories |
| Note on materials | RoHS-compliant |
| Material cover | Anodised wrought aluminium alloy |
| Material housing | Anodised wrought aluminium alloy |
| Material piston rod | High-alloy stainless steel |
| Material toothed belt | Polychloroprene with glass fibre |