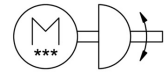


Rotary drive unit ERMS-25-90-ST-M-H1-PLK-AA

Part number: 8087819

FESTO



Data sheet

| Feature | Value |
|--|---|
| Size | 25 |
| Structural design | Electromechanical rotary actuator With integrated drive with integrated gearbox |
| Mounting position | Any |
| Type of mounting | With internal thread |
| Rotation angle | 90° |
| Gear ratio | 9:1 |
| Max. rotational speed | 105 1/min |
| Torsional backlash | 0.2 deg |
| Repetition accuracy | ±0.05 ° |
| Position sensing | Motor encoder |
| Max. axial force | 350 N |
| Max. radial force | 450 N |
| Permissible mass moment of inertia | 0.0065 kgm ² |
| Product weight | 1472 g |
| Step angle with full step | 1.8 deg |
| Step angle tolerance | ±5% |
| Duty cycle | 100% |
| 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 |
| 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 |
| Max. cable length | 15 m outputs 15 m inputs 20 m for IO-Link® operation |
| DC nominal voltage | 24 V |
| Nominal current | 3 A |
| Motor nominal current | 3 A |
| Max. current consumption | 3000 mA |
| Permissible voltage fluctuations | +/- 15 % |
| Number of digital logic inputs | 2 |

| Feature | Value |
|--|---|
| Characteristics of logic input | Configurable Not galvanically isolated |
| Logic input specification | Based on IEC 61131-2, type 1 |
| Work range of logic input | 24 V |
| Input switching logic | PNP (positive switching) |
| Number of digital logic outputs 24 V DC | 2 |
| Characteristics of digital logic outputs | Configurable Not galvanically isolated |
| Max. current of digital logic outputs | 100 mA |
| Switching logic at outputs | PNP (positive switching) |
| 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 |
| IO-Link®, process data width OUT | 2 Byte |
| IO-Link®, process data content OUT | 1 bit (move in) 1 bit (move out) 1 bit (quit error) |
| IO-Link®, process data width IN | 2 Byte |
| IO-Link®, process data content IN | 1 bit (state device) 1 bit (state move) 1 bit (state in) 1 bit (state out) |
| IO-Link®, service data contents IN | 32 bit force 32 bit position 32 bit speed |
| IO-Link®, minimum cycle time | 1 ms |
| IO-Link®, data memory required | 500 byte |
| IO-Link®, Connection technology | Plug |
| Parameterization interface | IO-Link® User interface |
| Insulation protection class | B |
| Motor type | Stepper motor |
| Rotor position sensor | Absolute encoder, single-turn |
| Rotor position sensor measuring principle | Magnetic |
| Rotor position sensor resolution | 16 bit |
| Homing | Fixed stop block positive Fixed stop block, negative |
| Additional functions | User interface Integrated end-position sensing |
| Display | LED |
| Ready status indication | LED |
| Symbol | 00997295 |
| Angular acceleration | ≤140 rad/s² |
| Certification | RCM compliance mark |
| KC characters | KC EMC |
| CE marking (see declaration of conformity) | As per EU EMC directive As per EU RoHS directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC To UK RoHS instructions |
| Peak torque | 2.7 Nm |
| Interface code, base | E8-55 |
| Degree of protection | IP40 |
| Protection class | III |
| Storage temperature | -20 °C ... 60 °C |
| Ambient temperature | 0 °C ... 50 °C |

| Feature | Value |
|-----------------------------|--|
| Note on ambient temperature | Above an ambient temperature of 30°C, the power must be reduced by 2% per K. |
| Relative air humidity | 0 - 85 % |
| 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 |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Note on materials | RoHS-compliant |
| Material of flange | Wrought aluminum alloy, anodized |
| Housing material | Wrought aluminum alloy, anodized |