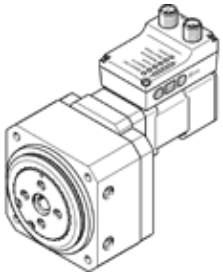
rotary drive unit
ERMS-25-180-ST-M-H1-PLK-AA

Part number: 8087820

FESTO



Data sheet

Feature	Value
Size	25
Design structure	Electromechanical rotary drive With integrated drive With integrated gearing
Assembly position	Any
Mounting type	with internal (female) thread
Rotation angle	180°
Gear unit ratio	9:1
Max. speed	150 1/min
Torsional backlash	0.2 deg
Repetition accuracy	±0,05 °
Position detection	Motor encoder
Max. axial force	350 N
Max. radial force	450 N
Permissible mass moment of inertia	0.0065 kgm2
Product weight	1,472 g
Stepper angle at full step	1.8 deg
Stepper angle tolerance	±5 %
Duty cycle	100 %
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
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
Max. line length	15 m outputs 15 m inputs 20 m with IO-Link operation
Nominal voltage DC	24 V
Nominal current	3 A
Nominal motor current	3 A
Max. current consumption	3 A
Permissible voltage fluctuation	+/- 15 %
Number of digital logic inputs	2
Logic input characteristics	configurable Not electrically isolated
Specification, logic input	Based on IEC 61131-2, type 1
Logic input working range	24 V
Input circuit logic	PNP (positive-switching)
Number of 24 V DC digital logic outputs	2
Digital logic output characteristics	configurable Not electrically isolated
Max. current, digital logic outputs	100 mA
Switching logic, outputs	PNP (positive-switching)
IO-Link, SIO mode support	Yes

Feature	Value
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	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	0.5 Kilobyte
IO-Link, connection technology	Plug
Parameters configuring interface	IO-Link User interface
Insulation protection class	B
Motor type	Stepper motor
Rotor position sensor	Absolute single turn encoder
Rotary position encoder measuring principle	Magnetic
Rotor position encoder resolution	16 Bit
Referencing	Fixed stop block positive Fixed stop block negative
Additional functions	User interface Integrated end-position sensing
Display	LED
Ready status display	LED
Angular acceleration	<= 140 rad/s2
Authorisation	RCM Mark
KC mark	KC-EMV
CE mark (see declaration of conformity)	to EU directive for EMC in accordance with EU RoHS directive
Peak torque	2.7 Nm
Interface code, base	E8-55
Protection class	IP40
Safety class	III
Storage temperature	-20 ... 60 °C
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.
Relative air humidity	0 - 85 %
Vibration resistance	Transport application test at severity level 1 in accordance with 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
Materials note	Contains PWIS substances Conforms to RoHS
Material flange	Wrought aluminium alloy, anodised
Material housing	Anodised wrought aluminium alloy