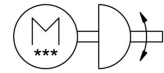


# Rotary drive unit ERMS-25-90-ST-M-H1-PLK-AA

Part number: 8087819

FESTO



## Data sheet

Feature	Value
Size	25
KC characters	KC EMC
Characteristics of logic input	Configurable Not galvanically isolated
Additional functions	User interface Integrated end-position sensing
Parameterization interface	IO-Link® User interface
Display	LED
Permissible voltage fluctuations	+/- 15 %
Homing	Fixed stop block positive Fixed stop block, negative
Max. cable length	15 m outputs 15 m inputs 20 m for IO-Link® operation
Logic input specification	Based on IEC 61131-2, type 1
Input switching logic	PNP (positive switching)
Shock resistance	Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27
Characteristics of digital logic outputs	Configurable Not galvanically isolated
Switching logic at outputs	PNP (positive switching)
Ready status indication	LED
Note on ambient temperature	Above an ambient temperature of 30°C, the power must be reduced by 2% per K.
Vibration resistance	Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6
Logic interface, connection pattern	00992264
Position sensing	Motor encoder
Logic interface, connection technology	M12x1, A-coded as per EN 61076-2-101
Power supply, type of connection	Plug
Logic interface, connection type	Plug
Power supply, connection pattern	00995989
Power supply, connection technology	M12x1, T-coded as per EN 61076-2-111
Number of digital logic outputs 24 V DC	2
Number of digital logic inputs	2
DC nominal voltage	24 V
Power supply, number of pins/wires	4
Logic interface, number of poles/wires	8

Feature	Value
Max. current of digital logic outputs	100 mA
Nominal current	3 A
Storage temperature	-20 °C ... 60 °C
Rotor position sensor resolution	16 bit
Max. current consumption	3000 mA
Work range of logic input	24 V
IO-Link®, SIO mode support	Yes
IO-Link®, number of ports	1
IO-Link®, port class	A
IO-Link®, communication mode	COM3 (230.4 kBd)
Protection class	III
IO-Link®, service data contents IN	32 bit force 32 bit position 32 bit speed
IO-Link®, process data content IN	1 bit (state device) 1 bit (state move) 1 bit (state in) 1 bit (state out)
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®, Connection technology	Plug
IO-Link®, protocol version	Device V 1.1
IO-Link®, process data width IN	2 Byte
IO-Link®, minimum cycle time	1 ms
IO-Link®, data memory required	500 byte
Angular acceleration	≤140 rad/s <sup>2</sup>
Type code	ERMS
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 °
Max. axial force	350 N
Max. radial force	450 N
Permissible mass moment of inertia	0.0065 kgm <sup>2</sup>
Product weight	1472 g
Step angle with full step	1.8 deg
Step angle tolerance	±5%
Duty cycle	100%
Motor nominal current	3 A
Insulation protection class	B
Motor type	Stepper motor
Rotor position sensor	Absolute encoder, single-turn
Rotor position sensor measuring principle	Magnetic
Symbol	00997295
Certification	RCM compliance mark
Peak torque	2.7 Nm
Interface code, base	E8-55

Feature	Value
Degree of protection	IP40
Ambient temperature	0 °C ... 50 °C
Relative air humidity	0 - 85 %
Note on materials	Contains paint-wetting impairment substances RoHS-compliant
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
Material of flange	Wrought aluminum alloy, anodized
Housing material	Wrought aluminum alloy, anodized