

Rotary drive unit ERMS-25-

Part number: 8087808

FESTO



Data sheet

Feature	Value
Size	25
Structural design	Electromechanical rotary actuator With integrated actuator With integrated gearbox
Mounting position	Any
Type of mounting	With internal thread
Gear ratio	9:1
Max. rotational speed	150 rpm
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
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
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	3 A
Permissible voltage fluctuations	+/-15%

Feature	Value
Number of digital logic inputs	2
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	NPN (negative switching) 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	NPN (negative switching) 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 bytes
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 Device 1 bit State In 1 bit State Intermediate 1 bit State Move 1 bit State Out 1 bit
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 KB
IO-Link®, Connection technology	Plug
Parameterization interface	IO-Link® User interface
Insulation protection class	B
Motor type	Stepper motor
Rotor position sensor	Absolute single-turn encoder
Rotor position sensor measuring principle	Magnetic
Homing	Fixed stop block positive Fixed stop block negative
Protective function	Temperature monitoring
Additional functions	User interface Integrated end-position sensing
Display	LED
Angular acceleration	140 rad/s ²
Certification	RCM compliance mark
KC characters	KC-EMV
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
Peak torque	2.7 Nm
Interface code, base	E8-55
Degree of protection	IP40
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
Logic max. current consumption	0.3 A
Maintenance interval	Lifetime lubrication