Rotary drive unit ERMS-32-180-ST-M-H1-PLK-AA

FESTO

Part number: 8087822





Data sheet

Feature	Value
Size	32
Structural design	Electromechanical rotary actuator With integrated drive with integrated gearbox
Mounting position	Any
Type of mounting	With internal thread
Rotation angle	180°
Gear ratio	7:1
Max. rotational speed	100 1/min
Torsional backlash	0.2 deg
Repetition accuracy	±0.1 °
Position sensing	Motor encoder
Max. axial force	450 N
Max. radial force	550 N
Permissible mass moment of inertia	0.0164 kgm²
Product weight	2304 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	5.3 A
Motor nominal current	5 A
Max. current consumption	5300 mA
Permissible voltage fluctuations	+/- 15 %
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 124 V Input switching logic PNP (positive switching) Number of digital logic outputs 24 V DC Characteristics of digital logic outputs Configurable Not galvanically isolated Max. current of digital logic outputs Max. current of digital logic 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)	
Logic input specification Work range of logic input 124 V Input switching logic PNP (positive switching) Number of digital logic outputs 24 V DC Characteristics of digital logic outputs Configurable Not galvanically isolated Max. current of digital logic outputs No mA Switching logic at outputs PNP (positive switching) IO-Link®, SIO mode support Yes IO-Link®, protocol version Based on IEC 61131-2, type 1 24 V Configurable Not galvanically isolated Yes Device V 1.1	
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Switching logic at outputs IO-Link®, SIO mode support IO-Link®, protocol version PNP (positive switching) Yes Device V 1.1	
IO-Link®, SIO mode support IO-Link®, protocol version Pevice V 1.1	
IO-Link®, protocol version Device V 1.1	
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IO-Link®, communication mode COM3 (230.4 kBd)	
IO-Link®, port class	
IO-Link®, number of ports	
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	
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 5.6 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