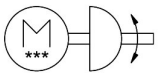
Rotary drive unit
ERMS-25-

Part number: 8087808



General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Size	25
Design	Electromechanical rotary drive With integrated drive With integrated gear unit
Mounting position	Any
Type of mounting	With female thread
Rotation angle	90° 180°
Gear unit ratio	9:1
Max. rotational speed	150 rpm
Max. speed at 90°	105 rpm
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	1472 g
Stepper angle for complete step	1.8 deg
Stepping angle tolerance	±5%
Duty cycle	100%
Power supply, connection type	Plug
power supply, connection system	M12x1, T-coded according to 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 according to EN 61076-2-101
Logic interface, number of pins/wires	8
Logic interface, plug pattern	00992264
Max. cable 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	3000 mA

Feature	Value
Permissible voltage fluctuations	+/- 15 %
Number of digital logic inputs	2
Features of logic input	Configurable Not galvanically isolated
Specification logic input	Based on IEC 61131-2, type 1
Working range of logic input	24 V
Switching logic for inputs	NPN (negative switching) PNP (positive switching)
Number of digital logic outputs 24 V DC	2
Features of digital logic outputs	Configurable Not galvanically isolated
Max. current digital logic outputs	100 mA
Switching logic for 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 kBaud)
IO-Link, Port class	A
IO-Link, Number of ports	1
IO-Link, Process data length 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 length IN	2 bytes
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 IN	32 bit Force 32 bit position 32 bit speed
IO-Link, Min. cycle time	1 ms
IO-Link, Data storage required	500 Byte
IO-Link, connection technology	Plug
Parameterisation interface	IO-Link® User interface
Insulation protection class	B
Type of motor	Stepper motor
Rotor position sensor	Absolute encoder, single turn
Rotor position sensor, encoder measuring principle	magnetic
Rotor position transducer resolution	16 bit
Referencing	Positive fixed stop block Negative fixed stop block
Protective function	Temperature monitoring
Additional functions	Built-in end-position sensing
Display	LED
Ready status indication	LED
Symbol	00997295
Angular acceleration	≤140 rad/s²
Approval	RCM
KC mark	KC-EMV
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions
Peak torque	2.7 Nm

Feature	Value
Interface code, basis	E8-55
Degree of protection	IP40
Protection class	III
Storage temperature	-20 °C ... 60 °C
Ambient temperature	0 °C ... 50 °C
Note on ambient temperature	Power must be reduced by 2% per K at ambient temperatures above 30°C.
Relative air humidity	0 - 85%
Vibration resistance	Transport application test with severity level 1 to FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27
LABS (PWIS) conformity	VDMA24364 zone III
Note on materials	RoHS compliant
Material flange	Anodised wrought aluminium alloy
Material housing	Anodised wrought aluminium alloy
Speed "Speed press"	3 m/s
Max. current consumption, logic	0.3 A
Maintenance interval	Lifetime lubrication