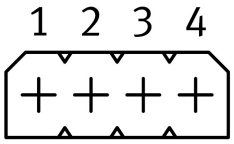
Rotary gripper module
EHMD-50-RE-GE-15

Part number: 8176191





Data sheet

Feature	Value
Size	50
Rotation angle	Infinite
Stroke per gripper jaws	15 mm
Controllable stroke range per gripper jaw	0 mm...15 mm
Reversing backlash theoretical	0.8 mm
Stepper angle for complete step	1.8 deg
Step angle full step, rotation	1.8 deg
Stepping angle tolerance	±5%
Step angle tolerance, rotation	±5%
Number of gripper jaws	2
Mounting position	Any
Design	Electric rotary drive Electric gripper drive
Mode of operation	Electric parallel gripper
Operating mode, rotation	Hybrid stepper motor
Gear unit ratio	1:1
Position detection	Turning: Motor encoder Gripping: Motor encoder
Gripper function	Parallel
Type of motor	Stepper motor
Referencing	Turning: Encoder index Gripping: Fixed-stop block
Rotor position sensor	Incremental encoder
Rotor position encoder interface	RS422 TTL AB channels + zero index
Rotor position sensor, encoder measuring principle	Optical
Max. drive output speed	240 rpm
Max. speed	25 mm/s
Max. homing speed	5 mm/s
Max. positioning speed per gripper jaw	25 mm/s
Max. gripping speed per gripper jaw	10 mm/s
Duty cycle	100%
Insulation protection class	B

Feature	Value
Max. current consumption	60 mA
Max. current consumption, rotation	60 mA
Nominal operating voltage DC	24 V
Nominal operating voltage DC, rotation	5 V
Nominal voltage DC	24 V
Phase winding inductance	2.8 mH
Winding inductance phase, rotation	2.3 mH
Phase winding resistance	2 Ohm
Winding resistance phase, rotation	0.83 Ohm
Pulses per revolution	500
Pulses per revolution, rotation	500
Nominal current per phase	0.5 A
Nominal current per phase, rotation	2.8 A
Approval	RCM
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC
Vibration resistance	Transport application test with severity level 1 to FN 942017-4 and EN 60068-2-6
LABS (PWIS) conformity	VDMA24364 zone III
Storage temperature	-20 °C...70 °C
Relative air humidity	0 - 85% Non-condensing
Degree of protection	IP20
Ambient temperature	18 °C...28 °C
Gripping force per gripper jaw	18 N...67 N
Gripping force at 25% nominal current	12 N...22 N
Gripping force at nominal current	61 N...71 N
Motor holding torque	0.115 Nm
Holding torque motor, rotation	1 Nm
Mass moment of inertia	0.038 kgcm²
Mass moment of inertia, rotation	0.51 kgcm²
Max. output torque	1 Nm
Max. force on gripper jaw Fz static	15 N
Max. torque at gripper Mx static	3.5 Nm
Max. torque at gripper My static	5 Nm
Max. torque at gripper Mz static	5 Nm
Rated load	500 g
Feed constant	2.3 mm/U
Permissible axial shaft load	15 N
Permissible radial shaft load	0 N
Product weight	1255 g
Electrical connection 1, function	2x motor
Electrical connection 1, connection type	Plug
Electrical connection 1, connector system	PTSM
Electrical connection 1, number of connections/cores	8
Electrical connection 2, function	2x encoder
Electrical connection 2, connection type	Plug
Electrical connection 2, connector system	JST-ZH
Electrical connection 2, number of connections/cores	16
Type of mounting	Via dovetail slot
Note on materials	RoHS compliant
Material cover	Reinforced PA
Material housing	Anodised wrought aluminium alloy