Parallel gripper
HPPR-12-4-A-NC-F1A

Part number: 8209481





Data sheet

Feature	Value
Size	12
Total stroke	4 mm
Stroke per gripper jaws	2 mm
Max. angular gripper jaw backlash ax, ay	0.3 deg
Max. gripper jaw backlash Sz	0.02 mm
Repetition accuracy, gripper	0.02 mm
Number of gripper jaws	2
Drive system	Pneumatic
Mounting position	Any
Mode of operation	Double-acting
Gripper function	Parallel
Gripper force back-up	During closing
Design	Wedge-shaped drive Force pilot operated motion sequence
Guide	Heavy-duty guide
Position detection	Via proximity switch
Operating pressure	0.4 MPa...0.8 MPa 4 bar...8 bar 58 psi...116 psi
Operating pressure of blocked air	0 MPa...0.05 MPa 0 bar...0.5 bar 0 psi...7.25 psi
Max. operating frequency of gripper	3 Hz
Min. opening time at 0.6 MPa (6 bar, 87 psi)	10 ms
Min. closing time at 0.6 MPa (6 bar, 87 psi)	7 ms
Max. mass per external gripper finger	30 g
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
Corrosion resistance class CRC	1 - Low corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)

Feature	Value
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6
Degree of protection	IP40
Ambient temperature	5 °C...90 °C
Total gripping force, opening, 0.6MPa (6bar, 87 psi)	30 N...46 N
Total gripping force, closing, 0.6MPa (6bar, 87 psi)	72 N...88 N
Gripper force per gripper jaw, opening, 0.6 MPa (6 bar, 87 psi)	15 N...23 N
Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi)	36 N...44 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	36 N...52 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi), closing	76 N...92 N
Theoretical gripping force per gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi), closing	18 N...26 N 38 N...46 N
Note on gripping force	Dependent on the stroke With integrated compression spring
Theoretical spring force per gripper jaw, closing	9 N...17 N
Mass moment of inertia	0.103 kgcm²
Max. force on gripper jaw Fz static	80 N
Max. torque at gripper Mx static	7 Nm
Max. torque at gripper My static	10 Nm
Max. torque at gripper Mz static	5 Nm
Lubrication interval for guide components	5 MioCyc
Product weight	67 g
Type of mounting	Via female thread and centring sleeve Via through-hole and centring sleeve Via through-hole and dowel pin Via female thread and dowel pin
Pneumatic connection, blocked air	M3
Pneumatic connection	M3
Note on materials	RoHS compliant
Material cover cap	High-alloy stainless steel
Material end plate	Anodised wrought aluminium alloy
Material spring	High-alloy stainless steel
Material housing	Anodised aluminium
Material gripper jaws	High-alloy stainless steel
Material piston	Wrought aluminium alloy, anodised
Material piston seal	HNBR
Material piston rod	High-alloy steel
Material o-ring	Fluoro rubber
Material screws	Steel, chemically nickel-plated
Gripper finger material	Wrought aluminium alloy, anodised