Parallel gripper
HPPR-F-16-3-A-NC-F1A

Part number: 8222550





Data sheet

Feature	Value
Size	16
Total stroke	3 mm
Stroke per gripper jaws	1.5 mm
Max. angular gripper jaw backlash ax, ay	0.2 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)	11 ms
Min. closing time at 0.6 MPa (6 bar, 87 psi)	7 ms
Max. mass per external gripper finger	40 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)	116 N...158 N
Total gripping force, closing, 0.6MPa (6bar, 87 psi)	246 N...288 N
Gripper force per gripper jaw, opening, 0.6 MPa (6 bar, 87 psi)	58 N...79 N
Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi)	123 N...144 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	128 N...170 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi), closing	256 N...298 N
Theoretical gripping force per gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi), closing	64 N...85 N 128 N...149 N
Note on gripping force	Dependent on the stroke With integrated compression spring
Theoretical spring force per gripper jaw, closing	28 N...49 N
Mass moment of inertia	0.193 kgcm²
Max. force on gripper jaw Fz static	200 N
Max. torque at gripper Mx static	10 Nm
Max. torque at gripper My static	12 Nm
Max. torque at gripper Mz static	6 Nm
Lubrication interval for guide components	5 MioCyc
Product weight	95 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 M5
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