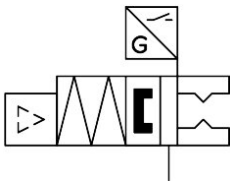
Parallel gripper
HPPH-16-16-NC-P-R12

Part number: 8171874





Data sheet

Feature	Value
Size	16
Total stroke	16 mm
Stroke per gripper jaws	8 mm
Max. angular gripper jaw backlash ax, ay	0 deg
Max. gripper jaw backlash Sz	0 mm
Repetition accuracy, gripper	0.06 mm
Distance from centre of mass Lx, with gripper finger	1.2 mm
Distance from the centre of mass Ly, with gripper finger	0 mm
Distance from the centre of mass of Lz, with gripper finger	29.4 mm
Distance from centre of mass Lx, without gripper finger	1.4 mm
Distance from the centre of mass Ly, without gripper finger	0 mm
Distance from the centre of mass of Lz, without gripper finger	24.9 mm
Number of gripper jaws	2
Drive system	Pneumatic
Mounting position	Any
Mode of operation	Double-acting
Cushioning	At one end Not adjustable
Gripper function	Parallel
Gripper force back-up	During closing
Design	Connection direction on the side Double piston Flat mounting method for gripper fingers Guidance Rack and pinion With gripper finger Pneumatic gripper Force pilot operated motion sequence
Guide	Ball guide
Position detection	Via integrated displacement encoder
Operating pressure	0.25 MPa...0.7 MPa 2.5 bar...7 bar 36.25 psi...101.5 psi
Operating pressure HRC	0.25 MPa...0.5 MPa

Feature	Value
	2.5 bar...5 bar 36.25 psi...72.5 psi
Max. operating frequency of gripper	1 Hz
Min. opening time at 0.6 MPa (6 bar, 87 psi)	180 ms
Min. closing time at 0.6 MPa (6 bar, 87 psi)	90 ms
Max. mass per external gripper finger	100 g
Max. current consumption	0.1 A
Nominal operating voltage DC	24 V
Permissible voltage fluctuations	+/-10%
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 To UK RoHS instructions
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 zone III
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6
Relative air humidity	0 - 90% Non-condensing
Sound pressure level	75 dB(A)
Degree of protection	IP40
Ambient temperature	-5 °C...50 °C
Total gripping force, closing, 0.6MPa (6bar, 87 psi)	278 N...302 N
Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi)	139 N...151 N
Total gripping force HRC, closing	232 N...256 N
Gripping force per gripper jaw HRC, closing	116 N...128 N
Note on gripping force	Dependent on the stroke With integrated compression spring
Theoretical spring force per gripper jaw, closing	23.3 N...34.9 N
Mass moment of inertia	0.6 kgcm²
Max. force on gripper jaw Fz static	176 N
Max. moment Mx	1.4 Nm
Max. moment My	2.8 Nm
Max. moment Mz	1.4 Nm
Maintenance interval	Lifetime lubrication
Product weight	680 g
Recommended workpiece weight for MRK	1 kg
Electrical connection 1, function	Field device side
Electrical connection 1, connection type	Cable with plug
Electrical connection 1, cable outlet	Angled
Electrical connection 1, design	Round
Electrical connection 1, connector system	M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	8
Electrical connection 1, used connections/cores	6
Electrical connection 1, tightening torque	0.2 Nm
Type of mounting	With mounting kit To ISO 9409
Pneumatic connection	For push-in connector O.D. 4 mm
Note on materials	RoHS compliant
Material cover	Reinforced PA

Feature	Value
Material spring	High-alloy stainless steel
Material housing	Anodised wrought aluminium alloy
Material gripper jaws	High-alloy steel
Material piston	Wrought aluminium alloy, anodised
Material piston seal	TPE-U(PU)
Material o-ring	HNBR NBR
Material screws	Galvanised steel High-alloy steel
Gear wheel material	High-alloy steel
Gripper finger material	Wrought aluminium alloy, anodised