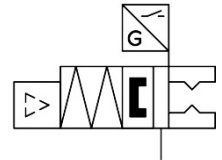


# Parallel grippers HPPH-16-16-NC-N-R12

Part number: 8171873

**FESTO**



## Data sheet

Feature	Value
Size	16
Complete stroke	16 mm
Stroke per gripper jaw	8 mm
Max. gripper jaw angular play ax, ay	0 deg
Max. gripper jaw backlash Sz	0 mm
Pneumatic gripper repetition accuracy	0.06 mm
Number of gripper jaws	2
Actuator system	Pneumatic
Mounting position	Any
Mode of operation	Double-acting
Cushioning	At one end Not adjustable
Gripper function	Parallel
Gripping force backup	During closing
Structural design	Connection direction at side Twin piston Flat mounting type for gripper fingers Guide Gear rack/pinion with gripper finger Pneumatic gripper Positively driven motion sequence
Guide	Ball guide
Position sensing	With integrated linear potentiometer
Switching status indication	LED blue, switching status via signal input
Operating pressure	0.25 MPa...0.7 MPa 2.5 bar...7 bar 36.25 psi...101.5 psi
HRC operating pressure	0.25 MPa...0.5 MPa 2.5 bar...5 bar 36.25 psi...72.5 psi
Max. operating frequency of pneumatic gripper	1 Hz
Min. opening time at 6 bar	180 ms
Min. closing time at 6 bar	90 ms
Max. mass per external gripper finger	100 g

Feature	Value
Max. current consumption	0.1 A
Nominal operating voltage DC	24 V
Switching output	PNP
Switching input	NPN
Permissible voltage fluctuations	+/- 10 %
Certification	RCM compliance mark
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Certificate issuing authority	TÜV Süd M70132770525.01
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
Shock resistance	Shock test with severity level 2 as per 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 as per FN 942017-4 and EN 60068-2-6
Relative air humidity	0 - 90 % Non-condensing
Noise level	75 dB(A)
Degree of protection	IP40
Ambient temperature	-5 °C...50 °C
Gripping force per gripper jaw at 6 bar, closing	278 N...302 N 139 N...151 N
HRC total gripping force, closing	232 N...256 N
HRC gripping force per gripper jaw, closing	116 N...128 N
Note on gripping force	dependent on stroke with integrated compression spring
Theoretical spring force per gripper jaw, closing	23.3 N...34.9 N
Mass moment of inertia	0.6 kgcm <sup>2</sup>
Maximum force on gripper jaw F <sub>z</sub> , static	176 N
Max. torque M <sub>x</sub>	2.8 Nm
Max. torque M <sub>y</sub>	1.4 Nm
Max. torque M <sub>z</sub>	1.4 Nm
Bending radius, fixed cable installation	26 mm
Bending radius, flexible cable installation	52 mm
Maintenance interval	Life-time lubrication
Product weight	680 g
Recommended workpiece weight for MRK	1 kg
Electrical connection 1, function	Field device end
Electrical connection 1, connection type	Cable with plug
Electrical connection 1, cable outlet	Angled
Electrical connection 1, design	Round
Electrical connection 1, connection technology	M8x1 A-coded as per EN 61076-2-104
Electrical connection 1, number of pins/wires	8
Electrical connection 1, occupied pins/wires	6
Electrical connection 1, tightening torque	0.2 Nm
Type of mounting	With mounting kit as per ISO 9409
Pneumatic connection	For plug connection outside diameter 4 mm
Note on materials	RoHS-compliant
Cover material	PA-reinforced
Material of spring	High-alloy stainless steel
Housing material	Wrought aluminum alloy, anodized

Feature	Value
Gripper jaw material	High-alloy steel
Material of piston	Wrought aluminum alloy, anodized
Piston seal material	TPE-U(PU)
O-ring material	HNBR NBR
Material of screws	Steel, galvanized High-alloy steel
Gear wheel material	High-alloy steel
Gripper finger material	Wrought aluminum alloy, anodized