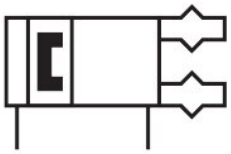
Parallel gripper
HPPL-16-80-A-F1A

Part number: 8197421



Data sheet

Feature	Value
Size	16
Complete stroke	80 mm
Stroke per gripper jaw	40 mm
Max. gripper jaw angular play ax, ay	0.2 deg
Max. gripper jaw backlash Sz	0.05 mm
Pneumatic gripper repetition accuracy	0.03 mm
Number of gripper jaws	2
Actuator system	Pneumatic
Mounting position	Any
Mode of operation	Double-acting
Cushioning	Elastic cushioning rings/pads at both ends, without fixed metal stop
Gripper function	Parallel
Gripping force backup	Without
Structural design	Twin piston Guide Piston gate valve T-shape Gear rack/pinion
Guide	Heavy-duty guide
Position sensing	For proximity sensor
Variants	Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils.
Operating pressure	0.2 MPa...0.8 MPa 2 bar...8 bar 29 psi...116 psi
Min. opening time at 6 bar	200 ms
Min. closing time at 6 bar	127 ms
Max. mass per external gripper finger	80 g
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

Feature	Value
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)
Vibration resistance	Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6
Degree of protection	IP40
Ambient temperature	-10 °C...80 °C
Gripping force per gripper jaw at 6 bar, opening	140 N 70 N
Gripping force per gripper jaw at 6 bar, closing	202 N 101 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	160 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) close	222 N
Theoretical opening gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	80 N
Close theoretical gripping force per Gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi)	111 N
Mass moment of inertia	6.12 kgcm²
Max. force Fz	500 N
Maximum torque on gripper jaw, Mx static	35 Nm
Maximum torque on gripper jaw, My static	35 Nm
Maximum torque on gripper jaw, Mz static	35 Nm
Product weight	492 g
Type of mounting	With internal thread and centering sleeve Via through-hole and centering sleeve
Pneumatic connection	M3 M5
Note on materials	RoHS-compliant Copper-free
Cover cap material	Wrought aluminum alloy, anodized
End plate material	Wrought aluminum alloy, anodized
Housing material	Wrought aluminum alloy, anodized
Gripper jaw material	High-alloy stainless steel
Material of piston	Wrought aluminum alloy, anodized
Piston seal material	TPE-U(PU)
Piston rod material	High-alloy stainless steel
O-ring material	NBR
Material of screws	Steel, chemically nickel-plated
Gear wheel material	High-alloy steel
Gripper finger material	Wrought aluminum alloy, anodized