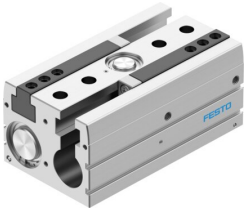
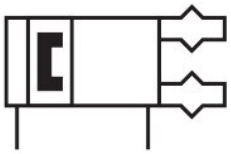
Parallel gripper
HPPL-50-160-A-F1A

Part number: 8196377





Data sheet

Feature	Value
Size	50
Total stroke	160 mm
Stroke per gripper jaws	80 mm
Max. angular gripper jaw backlash ax, ay	0.2 deg
Max. gripper jaw backlash Sz	0.05 mm
Repetition accuracy, gripper	0.03 mm
Number of gripper jaws	2
Drive system	Pneumatic
Mounting position	Any
Mode of operation	Double-acting
Cushioning	Elastic cushioning rings/pads at both ends without metal fixed stop
Gripper function	Parallel
Gripper force back-up	None
Design	Double piston Guidance Piston gate valve T-shape Rack and pinion
Guide	Heavy-duty guide
Position detection	Via proximity switch
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 0.6 MPa (6 bar, 87 psi)	587 ms
Min. closing time at 0.6 MPa (6 bar, 87 psi)	456 ms
Max. mass per external gripper finger	730 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

Feature	Value
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)
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6
Degree of protection	IP40
Ambient temperature	-10 °C...80 °C
Total gripping force, opening, 0.6MPa (6bar, 87 psi)	1706 N
Total gripping force, closing, 0.6MPa (6bar, 87 psi)	1948 N
Gripper force per gripper jaw, opening, 0.6 MPa (6 bar, 87 psi)	853 N
Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi)	974 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open	1822 N
Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi), closing	2064 N
Theoretical gripping force per gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi), closing	911 N 1032 N
Mass moment of inertia	329.29 kgcm²
Max. force Fz	5300 N
Max. torque at gripper Mx static	240 Nm
Max. torque at gripper My static	150 Nm
Max. torque at gripper Mz static	220 Nm
Product weight	6506 g
Type of mounting	Via female thread and centring sleeve Via through-hole and centring sleeve
Pneumatic connection	G1/8
Note on materials	RoHS compliant Copper-free
Material cover cap	Wrought aluminium alloy, anodised
Material end plate	Anodised wrought aluminium alloy
Material housing	Anodised wrought aluminium alloy
Material gripper jaws	High-alloy stainless steel
Material piston	Wrought aluminium alloy, anodised
Material piston seal	TPE-U(PU)
Material piston rod	High-alloy stainless steel
Material o-ring	NBR
Material screws	Steel, chemically nickel-plated
Gear wheel material	High-alloy steel
Gripper finger material	Wrought aluminium alloy, anodised