

Three-point gripper HGDT-50-A-F

Part number: 560186

FESTO



[PDF](#) General operating condition

Data sheet

Feature	Value
Size	50
Stroke per gripper jaws	4 mm
Max. replacement accuracy	≤0.2 mm
Max. angular gripper jaw backlash ax, ay	≤0.1 deg
Max. gripper jaw backlash Sz	≤0.05 mm
Rotationally symmetrical	≤0.2 mm
Repetition accuracy, gripper	≤0.03 mm
Number of gripper jaws	3
Mounting position	Any
Mode of operation	Double-acting
Gripper function	3-point
Design	Wedge-shaped drive Force pilot operated motion sequence
Position detection	Via proximity switch
Symbol	00991894
Total gripping force, opening, 0.6MPa (6bar, 87 psi)	2220 N
Total gripping force, closing, 0.6MPa (6bar, 87 psi)	1875 N
Operating pressure	3 bar ... 8 bar
Operating pressure of blocked air	0 bar ... 0.5 bar
Max. operating frequency of gripper	≤4 Hz
Min. opening time at 0.6 MPa (6 bar, 87 psi)	96 ms
Min. closing time at 0.6 MPa (6 bar, 87 psi)	83 ms
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)
Corrosion resistance class CRC	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L
Ambient temperature	5 °C ... 60 °C
Gripper force per gripper jaw, opening, 0.6 MPa (6 bar, 87 psi)	740 N
Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi)	625 N
Mass moment of inertia	11.05 kgcm ²
Max. force on gripper jaw Fz static	1500 N
Max. torque at gripper Mx static	50 Nm
Max. torque at gripper My static	30 Nm
Max. torque at gripper Mz static	40 Nm

Feature	Value
Lubrication interval for guide components	5 MioCyc
Max. mass per external gripper finger	160 g
Product weight	1104 g
Type of mounting	Either: Via through-hole and dowel pin Via female thread and dowel pin
Pneumatic connection, blocked air	M5
Pneumatic connection	G1/8
Note on materials	RoHS compliant
Material cover cap	High-alloy stainless steel
Material housing	Wrought aluminium alloy COMPCOTE-coated
Material gripper jaws	Hardened steel