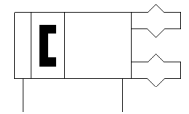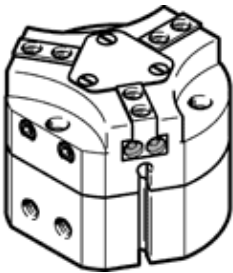# three-point gripper
HGDT-50-A
Part number: 540868

FESTO

Sturdy, can be used as internal and external gripper, for position sensing.

Data sheet

Feature	Value
Size	50
Stroke per gripper jaw	8 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 fingers	3
Assembly position	Any
Mode of operation	double-acting
Gripper function	3-point
Design structure	Inclined plane guided motion sequence
Position detection	For proximity sensor
Total gripping force at 0.6 MPa (6 bar, 87 psi), opening	1,041 N
Total gripping force at 0.6 MPa (6 bar, 87 psi), closing	921 N
Operating pressure	3 ... 8 bar
Operating pressure, sealing air	0 ... 0.5 bar
Max. operating frequency of gripper	<= 4 Hz
Min. opening time at 0.6 MPa (6 bar, 87 psi)	85 ms
Min. closing time at 0.6 MPa (6 bar, 87 psi)	75 ms
Operating medium	Compressed air in accordance with ISO8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (subsequently required for further operation)
Corrosion resistance classification CRC	2 - Moderate corrosion stress
PWIS conformity	VDMA24364-B1/B2-L
Ambient temperature	5 ... 60 °C
Gripping force per gripper jaw at 0.6 MPa (6 bar, 87 psi) opening	347 N
Gripping force per gripper jaw at 0.6 MPa (6 bar, 87 psi) closing	307 N
Mass moment of inertia	11.05 kgcm2
Max. force on gripper jaw Fz static	1,500 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
Lubrication interval for guide components	5 Mio SP
Max. mass per external gripper finger	160 g
Product weight	1,104 g
Mounting type	With through-hole and dowel pin With internal thread and dowel pin Optional
Pneumatic connection, sealing air	M5
Pneumatic connection	G1/8
Material cover cap	High alloy steel, non-corrosive
Material housing	Wrought Aluminium alloy COMPCOTE coated
Material gripper jaws	Steel, hardened