

# Three-point gripper HGDT-50-A-F

Part number: 560186

FESTO



[PDF](#) General operating condition

## Data sheet

| Feature  | Value  |
|--|--|
| Size   | 50   |
| Stroke per gripper jaw                           | 4 mm   |
| Max. interchangeability                          | ≤0.2 mm  |
| Max. gripper jaw angular play ax, ay             | ≤0.1 deg   |
| Max. gripper jaw backlash Sz                     | ≤0.05 mm   |
| Rotational symmetry                              | ≤0.2 mm  |
| Pneumatic gripper repetition accuracy            | ≤0.03 mm   |
| Number of gripper jaws                           | 3  |
| Mounting position                                | Any  |
| Mode of operation                                | Double-acting  |
| Gripper function                                 | 3-point  |
| Structural design                                | Inclined plane<br>Positively driven motion sequence                |
| Position sensing                                 | For proximity sensor   |
| Symbol   | 00991894   |
| Gripping force per gripper jaw at 6 bar, opening | 2220 N   |
| Gripping force per gripper jaw at 6 bar, closing | 1875 N   |
| Operating pressure                               | 3 bar ... 8 bar  |
| Operating pressure for sealing air               | 0 bar ... 0.5 bar  |
| Max. operating frequency of pneumatic gripper    | ≤4 Hz  |
| Min. opening time at 6 bar                       | 96 ms  |
| Min. closing time at 6 bar                       | 83 ms  |
| 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) |
| Corrosion resistance class (CRC)                 | 2 - Moderate corrosion stress                                      |
| LABS (PWIS) conformity                           | VDMA24364-B1/B2-L  |
| Ambient temperature                              | 5 °C ... 60 °C   |
| Gripping force per gripper jaw at 6 bar, opening | 740 N  |
| Gripping force per gripper jaw at 6 bar, closing | 625 N  |
| Mass moment of inertia                           | 11.05 kgcm <sup>2</sup>  |
| Maximum force on gripper jaw Fz, static          | 1500 N   |
| Maximum torque on gripper jaw, Mx static         | 50 Nm  |
| Maximum torque on gripper jaw, My static         | 30 Nm  |
| Maximum torque on gripper jaw, Mz static         | 40 Nm  |
| Relubrication interval for guidance elements     | 5 MioCyc   |

| <b>Feature</b>                        | <b>Value</b>   |
|---------------------------------------|--|
| Max. mass per external gripper finger | 160 g  |
| Product weight                        | 1104 g   |
| Type of mounting                      | Optionally:<br>With through-hole and dowel pin<br>With internal thread and dowel pin |
| Sealing air pneumatic connection      | M5   |
| Pneumatic connection                  | G1/8   |
| Note on materials                     | RoHS-compliant   |
| Cover cap material                    | High-alloy stainless steel   |
| Housing material                      | Wrought aluminum alloy<br>COMPCOTE-coated  |
| Gripper jaw material                  | Hardened steel   |