

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

Part number: 560186

**FESTO**



## 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                                 | Via proximity switch                                               |
| Gripping force per gripper jaw at 6 bar, opening | 2220 N<br>740 N                                                    |
| Gripping force per gripper jaw at 6 bar, closing | 1875 N<br>625 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                                                       |
| 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                                                              |

| Feature                                      | Value                                                                                   |
|----------------------------------------------|-----------------------------------------------------------------------------------------|
| Maximum torque on gripper jaw, Mz static     | 40 Nm                                                                                   |
| Relubrication interval for guidance elements | 5 MioCyc                                                                                |
| Max. mass per external gripper finger        | 160 g                                                                                   |
| Product weight                               | 1104 g                                                                                  |
| Type of mounting                             | Alternatively:<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                                                                          |