

# Three-point gripper HGDT-50-A-F-G1

Part number: 560187

FESTO



 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                            | optional                                                                                   |
| Mode of operation                            | Double-acting                                                                              |
| Gripper function                             | 3-point                                                                                    |
| Gripper force back-up                        | During opening                                                                             |
| Design                                       | Force pilot operated motion sequence                                                       |
| Position detection                           | Via proximity switch                                                                       |
| Symbol                                       | 00995947                                                                                   |
| Operating pressure                           | 4 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) | 31 ms                                                                                      |
| Min. closing time at 0.6 MPa (6 bar, 87 psi) | 170 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                                                                             |
| Mass moment of inertia                       | 15.33 kgcm <sup>2</sup>                                                                    |
| 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                                                                                      |
| Lubrication interval for guide components    | 5 MioCyc                                                                                   |
| Max. mass per external gripper finger        | 160 g                                                                                      |
| Product weight                               | 1592 g                                                                                     |

| Feature                           | Value                                                                        |
|-----------------------------------|------------------------------------------------------------------------------|
| Type of mounting                  | Either:<br>Via through-hole and dowel pin<br>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<br>Coated with COMPCOTE                              |
| Material gripper jaws             | Hardened steel                                                               |