

# Parallel gripper HPPF-12-48-A-S

Part number: 8141589

FESTO



[PDF](#) General operating condition

## Data sheet

| Feature  | Value  |
|--|--|
| Size   | 12   |
| Complete stroke                                    | 48 mm  |
| Stroke per gripper jaw                             | 24 mm  |
| Max. gripper jaw angular play ax, ay               | 0 deg  |
| Max. gripper jaw backlash Sz                       | 0 mm   |
| Pneumatic gripper repetition accuracy              | ≤0.02 mm   |
| Number of gripper jaws                             | 2  |
| Actuator system                                    | Pneumatic  |
| Mounting position                                  | Any  |
| Mode of operation                                  | Double-acting  |
| Cushioning   | Elastic cushioning rings/pads at both ends   |
| Gripper function                                   | Parallel   |
| Gripping force backup                              | None   |
| Structural design                                  | Flat mounting type for gripper fingers<br>Gear rack/pinion<br>Positively driven motion sequence  |
| Guide  | Ball guide   |
| Position sensing                                   | Via proximity switch   |
| Symbol   | 00991894   |
| Variants   | Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils. |
| Operating pressure                                 | 0.1 MPa ... 0.7 MPa  |
| Operating pressure                                 | 1 bar ... 7 bar  |
| Operating pressure                                 | 14.5 psi ... 101.5 psi   |
| Max. operating frequency of pneumatic gripper      | 2 Hz   |
| Min. opening time at 6 bar                         | 121 ms   |
| Min. closing time at 6 bar                         | 105 ms   |
| Max. mass per external gripper finger              | 130 g  |
| 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)                   | 0 - No corrosion stress  |
| LABS (PWIS) conformity                             | VDMA24364 Zone III   |
| Suitability for the production of Li-ion batteries | Suitable for battery production with reduced Cu/Zn/Ni values (F1a)   |
| Ambient temperature                                | -10 °C ... 60 °C   |

| Feature  | Value   |
|--|---|
| Gripping force per gripper jaw at 6 bar, opening | 120.3 N   |
| Gripping force per gripper jaw at 6 bar, closing | 120.3 N   |
| Gripping force per gripper jaw at 6 bar, opening | 60.15 N   |
| Gripping force per gripper jaw at 6 bar, closing | 60.15 N   |
| Maximum force on gripper jaw Fz, static          | 100 N   |
| Max. torque Mx                                   | 2.2 Nm  |
| Max. torque My                                   | 1.12 Nm   |
| Max. torque Mz                                   | 1.12 Nm   |
| Product weight                                   | 339 g   |
| Type of mounting                                 | Direct mounting via through-hole<br>Direct fastening via thread |
| Pneumatic connection                             | M5  |
| Note on materials                                | RoHS compliant  |
| Cover cap material                               | Wrought aluminum alloy, anodized                                |
| Cover material                                   | Wrought aluminum alloy, anodized                                |
| End plate material                               | high-alloy stainless steel                                      |
| Housing material                                 | Wrought aluminum alloy, anodized                                |
| Gripper jaw material                             | High-alloy steel  |
| Piston seal material                             | TPE-U(PU)   |
| O-ring material                                  | NBR   |
| Material of screws                               | Coated steel  |
| Gear rack material                               | high-alloy stainless steel                                      |