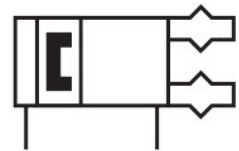


# Parallel gripper HPPF-20-80-A-S

Part number: 8143427

FESTO



## Data sheet

| Feature                                       | Value                                                                                                                                                                                                                          |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size                                          | 20                                                                                                                                                                                                                             |
| Complete stroke                               | 80 mm                                                                                                                                                                                                                          |
| Stroke per gripper jaw                        | 40 mm                                                                                                                                                                                                                          |
| Max. gripper jaw angular play ax, ay          | 0 deg                                                                                                                                                                                                                          |
| Max. gripper jaw backlash Sz                  | 0 mm                                                                                                                                                                                                                           |
| Pneumatic gripper repetition accuracy         | 0.06 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                         | Without                                                                                                                                                                                                                        |
| Structural design                             | Flat mounting type for gripper fingers<br>Gear rack/pinion<br>Positively driven motion sequence                                                                                                                                |
| Guide                                         | Ball guide                                                                                                                                                                                                                     |
| Position sensing                              | For proximity sensor                                                                                                                                                                                                           |
| 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<br>1 bar...7 bar<br>14.5 psi...101.5 psi                                                                                                                                                                     |
| Max. operating frequency of pneumatic gripper | 1 Hz                                                                                                                                                                                                                           |
| Min. opening time at 6 bar                    | 240 ms                                                                                                                                                                                                                         |
| Min. closing time at 6 bar                    | 225 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)              | 0 - No corrosion stress                                                                                                                                                                                                        |
| LABS (PWIS) conformity                        | VDMA24364 zone III                                                                                                                                                                                                             |

| Feature                                            | Value                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitability for the production of Li-ion batteries | Product corresponds to Festo's internal product definition for use in battery production: Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class                                    | Class 7 according to ISO 14644-1                                                                                                                                                                                                                                                                                |
| Ambient temperature                                | -10 °C...60 °C                                                                                                                                                                                                                                                                                                  |
| Gripping force per gripper jaw at 6 bar, opening   | 346.6 N<br>173.3 N                                                                                                                                                                                                                                                                                              |
| Gripping force per gripper jaw at 6 bar, closing   | 346.6 N<br>173.3 N                                                                                                                                                                                                                                                                                              |
| Maximum force on gripper jaw Fz, static            | 320 N                                                                                                                                                                                                                                                                                                           |
| Max. torque Mx                                     | 6 Nm                                                                                                                                                                                                                                                                                                            |
| Max. torque My                                     | 3 Nm                                                                                                                                                                                                                                                                                                            |
| Max. torque Mz                                     | 3 Nm                                                                                                                                                                                                                                                                                                            |
| Product weight                                     | 1458 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                                 | Steel, coated                                                                                                                                                                                                                                                                                                   |
| Gear rack material                                 | High-alloy stainless steel                                                                                                                                                                                                                                                                                      |