

# Parallel gripper DHPC-20-A-S-1

Part number: 8116818

FESTO



 General operating condition

## Data sheet

| Feature                                      | Value                                                                                                                                                                                                                          |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size                                         | 20                                                                                                                                                                                                                             |
| Stroke per gripper jaws                      | 5 mm                                                                                                                                                                                                                           |
| Max. replacement accuracy                    | 0.2 mm                                                                                                                                                                                                                         |
| Max. angular gripper jaw backlash ax, ay     | 0 deg                                                                                                                                                                                                                          |
| Max. gripper jaw backlash Sz                 | 0 mm                                                                                                                                                                                                                           |
| Rotationally symmetrical                     | ≤0.2 mm                                                                                                                                                                                                                        |
| Repetition accuracy, gripper                 | ≤0.02 mm                                                                                                                                                                                                                       |
| Number of gripper jaws                       | 2                                                                                                                                                                                                                              |
| Drive system                                 | Pneumatic                                                                                                                                                                                                                      |
| Mounting position                            | optional                                                                                                                                                                                                                       |
| Mode of operation                            | Double-acting                                                                                                                                                                                                                  |
| Gripper function                             | Parallel                                                                                                                                                                                                                       |
| Gripper force back-up                        | None                                                                                                                                                                                                                           |
| Design                                       | Connection direction at side<br>Lever<br>Side mounting method for gripper fingers<br>Force pilot operated motion sequence                                                                                                      |
| Guide                                        | Ball guide                                                                                                                                                                                                                     |
| Position detection                           | 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 ... 0.8 MPa                                                                                                                                                                                                            |
| Operating pressure                           | 1 bar ... 8 bar                                                                                                                                                                                                                |
| Operating pressure                           | 14.5 psi ... 116 psi                                                                                                                                                                                                           |
| Max. operating frequency of gripper          | 3 Hz                                                                                                                                                                                                                           |
| Min. opening time at 0.6 MPa (6 bar, 87 psi) | 62 ms                                                                                                                                                                                                                          |
| Min. closing time at 0.6 MPa (6 bar, 87 psi) | 40 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               | 0 - No corrosion stress                                                                                                                                                                                                        |
| LABS (PWIS) conformity                       | VDMA24364-B2-L                                                                                                                                                                                                                 |

| Feature                                                         | Value                                                                                                                                                                                                                 |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitability for the production of Li-ion batteries              | 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 |
| Ambient temperature                                             | -10 °C ... 60 °C                                                                                                                                                                                                      |
| Total gripping force, opening, 0.6MPa (6bar, 87 psi)            | 192.6 N                                                                                                                                                                                                               |
| Total gripping force, closing, 0.6MPa (6bar, 87 psi)            | 159.5 N                                                                                                                                                                                                               |
| Gripper force per gripper jaw, opening, 0.6 MPa (6 bar, 87 psi) | 96.3 N                                                                                                                                                                                                                |
| Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi) | 79.8 N                                                                                                                                                                                                                |
| Mass moment of inertia                                          | 0.515 kgcm <sup>2</sup>                                                                                                                                                                                               |
| Max. force on gripper jaw Fz static                             | 101.3 N                                                                                                                                                                                                               |
| Max. torque at gripper Mx static                                | 1.43 Nm                                                                                                                                                                                                               |
| Max. torque at gripper My static                                | 1.3 Nm                                                                                                                                                                                                                |
| Max. torque at gripper Mz static                                | 1.3 Nm                                                                                                                                                                                                                |
| Product weight                                                  | 224 g                                                                                                                                                                                                                 |
| Type of mounting                                                | Direct mounting via through-hole<br>Direct mounting via thread<br>On mounting frame<br>Via through-hole and dowel pin<br>Via female thread and dowel pin<br>Either:                                                   |
| Pneumatic connection                                            | M5                                                                                                                                                                                                                    |
| Note on materials                                               | RoHS-compliant                                                                                                                                                                                                        |
| Material housing                                                | Anodised aluminium                                                                                                                                                                                                    |
| Material gripper jaws                                           | High-alloy stainless steel                                                                                                                                                                                            |