

# Parallel gripper DHPC-16-A-S

Part number: 8116785

FESTO



 General operating condition

## Data sheet

| Feature                                              | Value                                                                                                                                                                                                                          |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size                                                 | 16                                                                                                                                                                                                                             |
| Stroke per gripper jaws                              | 3 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                                               | 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)         | 29 ms                                                                                                                                                                                                                          |
| Min. closing time at 0.6 MPa (6 bar, 87 psi)         | 31 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                                                                                                                                                                                                                 |
| Suitability for the production of Li-ion batteries   | Suitable for battery production according to the Festo internal definition of the degree of severity F1A with restrictions regarding the use of Cu/Zn/Ni                                                                       |
| Ambient temperature                                  | -10 °C ... 60 °C                                                                                                                                                                                                               |
| Total gripping force, opening, 0.6MPa (6bar, 87 psi) | 125.4 N                                                                                                                                                                                                                        |

| Feature                                                         | Value                                                                                                                                          |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Total gripping force, closing, 0.6MPa (6bar, 87 psi)            | 107.8 N                                                                                                                                        |
| Gripper force per gripper jaw, opening, 0.6 MPa (6 bar, 87 psi) | 62.7 N                                                                                                                                         |
| Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi) | 53.9 N                                                                                                                                         |
| Mass moment of inertia                                          | 0.146 kgcm <sup>2</sup>                                                                                                                        |
| Max. force on gripper jaw Fz static                             | 84 N                                                                                                                                           |
| Max. torque at gripper Mx static                                | 0.94 Nm                                                                                                                                        |
| Max. torque at gripper My static                                | 0.71 Nm                                                                                                                                        |
| Max. torque at gripper Mz static                                | 0.71 Nm                                                                                                                                        |
| Product weight                                                  | 110 g                                                                                                                                          |
| Type of mounting                                                | Either:<br>Direct mounting via through-hole<br>Direct mounting via thread<br>Via through-hole and dowel pin<br>Via female thread and dowel pin |
| Pneumatic connection                                            | M3                                                                                                                                             |
| Note on materials                                               | RoHS-compliant                                                                                                                                 |
| Material housing                                                | Anodised aluminium                                                                                                                             |
| Material gripper jaws                                           | High-alloy stainless steel                                                                                                                     |