


# Quarter turn actuator DFPD-N-120-RP-120-RD-F0507

Part number: 8068199

FESTO



 General operating condition

## Data sheet

| Feature  | Value  |
|--|--|
| Size of valve actuator   | 120  |
| Flange hole pattern  | F0507  |
| Swivel angle   | 120 deg  |
| End-position adjusting range at 0°                                       | -5 deg ... 5 deg   |
| End-position adjusting range at nominal swivel angle                     | -5 deg ... 5 deg   |
| Depth shaft connection   | 19 mm  |
| Standard connection for valve  | ISO 5211   |
| Mounting position  | Any  |
| Mode of operation  | Double-acting  |
| Structural design  | Gear rack/pinion   |
| Closing direction  | Clockwise closing  |
| Symbol   | 00991265   |
| Valve connection conforms to standard                                    | VDI/VDE 3845 (NAMUR)   |
| Connection point for positioner and position sensor conforms to standard | VDI/VDE 3845 size AA 1   |
| Devices type according to VDMA 66413                                     | Safety device  |
| Safety function  |  |
| Safety integrity level (SIL)   | Up to SIL 2 low demand mode<br>up to SIL 3 in a redundant architecture<br>up to SIL 1 high demand mode   |
| Certified for safety function to ISO 13849 and IEC 61508 (SIL)           | Product can be used in safety-related parts of control systems up to SIL 2, low demand<br>Product can be used in safety-related parts of control systems up to SIL 1, high demand<br>up to SIL 3 in a redundant architecture |
| Operating pressure   | 0.2 MPa ... 0.8 MPa  |
| Operating pressure   | 2 bar ... 8 bar  |
| Operating pressure   | 29 psi ... 116 psi   |
| Nominal operating pressure   | 0.55 MPa   |
| Nominal operating pressure   | 5.5 bar  |
| Nominal operating pressure   | 79.75 psi  |
| Maritime classification  | See certificate  |
| CE marking (see declaration of conformity)                               | as per EU explosion protection directive (ATEX)  |
| UKCA marking (see declaration of conformity)                             | acc. to UK EX instructions   |
| Explosion protection certification outside the EU                        | EPL Db (GB)<br>EPL Gb (GB)   |

| Feature   | Value   |
|---|---|
| Explosion prevention and protection                           | Zone 1 (ATEX)<br>Zone 1 (UKEX)<br>Zone 2 (ATEX)<br>Zone 21 (ATEX)<br>Zone 21 (UKEX)<br>Zone 22 (ATEX)   |
| Certificate issuing authority                                 | DNV TAP00001CE<br>German Technical Control Board (TÜV) Rheinland 968/V 1106.01/2023   |
| ATEX category gas   | II 2G   |
| ATEX category for dust  | II 2D   |
| Type of ignition protection for gas                           | Ex h IIC T4 Gb X  |
| Type of (ignition) protection for dust                        | Ex h IIIC T105°C Db X   |
| Explosive ambient temperature                                 | -20°C ≤ Ta ≤ +80°C  |
| Operating medium  | Compressed air as per ISO 8573-1:2010 [7:4:4]   |
| Information on operating and pilot media                      | Dew point min. 10 °C below the ambient temperature and temperature of medium<br>Operation with oil lubrication possible (required for further use)                    |
| LABS (PWIS) conformity  | VDMA24364-B1/B2-L   |
| Storage temperature   | -20 °C ... 60 °C  |
| Ambient temperature   | -20 °C ... 80 °C  |
| Torque at nominal operating pressure and 0° swivel angle      | 117.4 Nm  |
| Torque at nominal operating pressure and 90° swivel angle     | 117.4 Nm  |
| Note about the torque   | The actuator's operating torque must not be higher than the maximum permissible torque listed in ISO 5211, based on the size of the mounting flange and the coupling. |
| MTTFd   | 1126 years  |
| PFH   | 1.01E-7   |
| PFD   | 0.00142   |
| Air consumption at 6 bar per cycle 0°-nominal swivel angle-0° | 11.9 l  |
| Product weight  | 6250 g  |
| Shaft connection  | T17   |
| Pneumatic connection  | 1/4 NPT   |
| Note on materials   | RoHS-compliant  |
| Material of sub-base  | Wrought aluminum alloy, anodized  |
| Cover material  | Die-cast aluminum, coated   |
| Seals material  | NBR   |
| Housing material  | Wrought aluminum alloy, anodized  |
| Material of piston  | Die-cast aluminum   |
| Material of bearing   | POM   |
| Cam material  | High-alloy stainless steel  |
| Material of screws  | High-alloy stainless steel  |
| Shaft material  | Steel, nickel-plated  |