

# Quarter turn actuator DFPD-120-RP-90-RS60-F0507

Part number: 8048134

FESTO



## Data sheet

| Feature  | Value  |
|--|--|
| Size of valve actuator   | 120  |
| Flange hole pattern  | F0507  |
| Swivel angle   | 90 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  |
| Type code  | DFPD   |
| Standard connection for valve  | ISO 5211   |
| Mounting position  | Any  |
| Mode of operation  | Single-acting  |
| Structural design  | Gear rack/pinion   |
| Closing direction  | Clockwise closing  |
| Symbol   | 00991266   |
| Valve connection conforms to standard                                    | VDI/VDE 3845 (NAMUR)   |
| Connection for valve positioner and position sensor conforms to standard | VDI/VDE 3845 size AA 1   |
| Devices type according to VDMA 66413                                     | Safety device  |
| Safety function  | The fundamental safety function is that the control valve moves to the switching position when the compressed air is turned off. It is reset by spring force.  |
| 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   | 0.6 MPa  |
| Nominal operating pressure   | 6 bar  |
| Nominal operating pressure   | 87 psi   |
| Maritime classification  | See certificate  |
| CE marking (see declaration of conformity)                               | as per EU explosion protection directive (ATEX)  |

| Feature   | Value   |
|---|---|
| Explosion prevention and protection                           | Zone 1 (ATEX)<br>Zone 2 (ATEX)<br>Zone 21 (ATEX)<br>Zone 22 (ATEX)  |
| Certificate issuing authority                                 | DNVGL TAP00001CE<br>German Technical Control Board (TÜV) Rheinland 968/V 1106.00/19   |
| 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                      | Operation with oil lubrication possible (required for further use)  |
| Corrosion resistance class (CRC)                              | 2 - Moderate corrosion stress   |
| Storage temperature   | -20 °C ... 60 °C  |
| Ambient temperature   | -20 °C ... 80 °C  |
| Torque at nominal operating pressure and 0° swivel angle      | 86 Nm   |
| Torque at nominal operating pressure and 90° swivel angle     | 44.8 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. |
| Spring return torque at 0° swivel angle                       | 42.1 Nm   |
| Spring return torque with 90° swivel angle                    | 83.3 Nm   |
| MTTFd   | 1126 years  |
| PFH   | 1.01E-7   |
| PFD   | 7.8E-4  |
| Air consumption at 6 bar per cycle 0°-nominal swivel angle-0° | 4.3 l   |
| Product weight  | 5736 g  |
| Shaft connection  | T17   |
| Pneumatic connection  | G1/4  |
| Note on materials   | RoHS-compliant  |
| Material of sub-base  | Wrought aluminum alloy, anodized  |
| Cover material  | Die-cast aluminum, coated   |
| Seals material  | NBR   |
| Material of spring  | Spring steel  |
| Housing material  | Wrought aluminum alloy, anodized  |
| Material of piston  | Die-cast aluminum   |
| Material of bearing   | POM   |
| Cam material  | Cast stainless steel  |
| Material of screws  | High-alloy stainless steel  |
| Shaft material  | Steel, nickel-plated  |