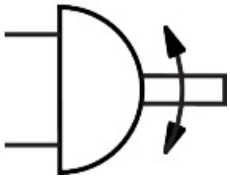
# Quarter turn actuator
# DFPD-N-80-RP-90-RD-F0507

Part number: 8066405





General operating condition

## Data sheet

| Feature | Value |
|---|---|
| Size of valve actuator | 80 |
| 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 |
| 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 |
| Burst pressure | 24 bar |
| 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 |

| Feature | Value |
|---|---|
| Explosion protection certification outside the EU | EPL Db (GB)<br>EPL Gb (GB) |
| 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 | 82.4 Nm |
| Torque at nominal operating pressure and 90° swivel angle | 82.4 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. |
| Air consumption at 6 bar per cycle 0°-nominal swivel angle-0° | 7.4 l |
| Product weight | 3308 g |
| Shaft connection | T17 |
| Pneumatic connection | 1/8 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 | Aluminum, 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 |