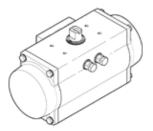
## Semi-rotary actuator DFPD-480-RP-180-RD-F1012 Part number: 8065345

double-acting, rack and pinion engineering design, connection pattern according to NAMUR VDI/VDE 3845 for mounting solenoid valves, position sensors and positioners, standard connection to fitting ISO 5211.



## **Data sheet**

|  | Value   |
|--|---|
| Size of actuator   | 480   |
| Flange hole pattern  | F1012   |
| Swivel angle   | 180 deg   |
| End-position adjustment range at 0°                                | -5 5 deg  |
| End-position adjusting range at nominal swivel angle               | -5 5 deg  |
| Shaft connection depth   | 29 mm   |
| Fitting connection conforms to standard                            | ISO 5211  |
| Assembly position  | Any   |
| Mode of operation  | double-acting   |
| Design structure   | Rack and pinion   |
| Closing direction  | right-closing   |
| Valve connection conforms to standard                              | VDI/VDE 3845 (NAMUR)  |
| Connection for positioner and position sensor conforms to standard | VDI/VDE 3845 size AA 2  |
| Component suitable for safety functions                            | Safety device   |
| Safety function  | The safety function consists of the actuator switching to the specified<br>safety switching position.<br>This switching movement is achieved by pressurising the<br>corresponding pressure chamber with compressed air.<br>The value of the torque generated depends on the differential pressure<br>between the two pressure chambers separated by the piston. |
| Safety Integrity Level (SIL)                                       | Product can be used in SRP/CS up to SIL 2 low demand<br>Up to SIL 3 in 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 SRP/CS up to SIL 2 low demand<br>up to SIL 1 high demand mode<br>Up to SIL 3 in redundant architecture   |
| Operating pressure MPa   | 0.2 0.8 MPa   |
| Working pressure   | 2 8 bar   |
| Operating pressure   | 29 116 psi  |
| Nominal operating pressure   | 0.55 MPa  |
| Nominal working pressure   | 5.5 bar   |
| Nominal operating pressure (psi)                                   | 79.75 psi   |
| Maritime classification  | see certificate   |
| CE symbol (see declaration of conformity)                          | according to EU-Ex protection guideline (ATEX)  |
| UKCA marking (see declaration of conformity)                       | To UK EX instructions   |
| Explosion protection certification outside the EU                  | EPL Db (GB)   |
|  | EPL Gb (GB)   |
| Certificate issuing department                                     | DNV TAP00001CE  |
| 0  | German Technical Control Board (TÜV) Rheinland 968/V 1106.01/2023   |
| ATEX category Gas  |   |
| ATEX category Dust   | II 2D   |
| Explosion ignition protection type Gas                             | Ex h IIC T4 Gb X  |
| Explosion ignition protection type Gus                             | Ex h IIIC T105°C Db X   |

**FESTO** 

## FESTO

| Feature   | Value   |
|---|---|
| Explosion-proof ambient temperature   | -20°C <= Ta <= +80°C  |
| Operating medium  | Compressed air in accordance with ISO8573-1:2010 [7:4:4]                    |
| Note on operating and pilot medium  | Pressure dew point 10°C below ambient temperature/temperature of            |
|   | medium  |
|   | Lubricated operation possible (subsequently required for further operation) |
| Corrosion resistance classification CRC   | 1 - Low corrosion stress  |
| PWIS conformity   | VDMA24364-B1/B2-L   |
| Storage temperature   | -20 60 °C   |
| Ambient temperature   | -20 80 °C   |
| Torque at rated working pressure and 0° rotation angle                          | 474 Nm  |
| Torque at nominal operating pressure with 90° swivel angle                      | 474 Nm  |
| Note about the torque   | The operating torque of the actuator must not be higher than the            |
|   | maximum permissible torque listed in ISO 5211, with reference to the        |
|   | size of the mounting flange and of the coupling.                            |
| Mean Time to Dangerous Failure (MTTFd)  | 1126 years  |
| Probability of Failure per Hour in [1/h].                                       | 1.01E-07  |
| PFD (Probability of Failure on Demand)  | 1.42E-03  |
| Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0° | 61.4 l  |
| Product weight  | 23,456 g  |
| Shaft connection  | T27   |
| Pneumatic connection  | G1/4  |
| Materials note  | Conforms to RoHS  |
| Material of connecting plate  | Anodised wrought aluminium alloy  |
| Material cover  | Coated die-cast aluminium   |
| Material seals  | NBR   |
| Material housing  | Anodised wrought aluminium alloy  |
| Material piston   | Aluminum die cast   |
| Material bearing  | POM   |
| Material cam  | Steel   |
| Material screws   | High alloy steel, non-corrosive   |
| Material shaft  | Steel, nickel-plated  |