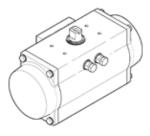
## semi-rotary drive DFPD-N-80-RP-90-RS30-F0507 Part number: 8066432

single-acting, rack and pinion design, connection pattern to NAMUR VDI/VDE 3845 for mounting solenoid valves, position sensors and positioners, standard connection to process valve fitting ISO 5211, NPT control air connection thread type.



## **Data sheet**

| Feature  | Value   |
|--|---|
| Size of actuator   | 80  |
| Flange hole pattern  | F0507   |
| Swivel angle   | 90 deg  |
| End-position adjustment range at 0°                                | -5 5 deg  |
| End-position adjusting range at nominal swivel angle               | -5 5 deg  |
| Shaft connection depth   | 19 mm   |
| Fitting connection conforms to standard                            | ISO 5211  |
| Assembly position  | Any   |
| Mode of operation  | single-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 1  |
| Component suitable for safety functions                            | Safety device   |
| Safety function  | The safety function consists of the actuator switching to the specified<br>safety switching position when the compressed air is switched off and<br>the spring chamber is exhausted.<br>This switching movement is achieved through the spring force of the<br>spring assembly. |
| 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   |
| Operating pressure   | 2 8 bar<br>29 116 psi   |
| Nominal operating pressure   | 0.3 MPa<br>3 bar  |
| Nominal operating pressure (psi)                                   | 43.5 psi  |
| Maritime classification  | see certificate   |
| CE mark (see declaration of conformity)                            | to EU directive explosion protection (ATEX)   |
| UKCA marking (see declaration of conformity)                       | To UK EX instructions   |
| Explosion protection certification outside the EU                  | EPL Db (GB)<br>EPL Gb (GB)  |
| Certificate issuing department                                     | DNV TAP00001CE<br>German Technical Control Board (TÜV) Rheinland 968/V 1106.01/2023   |
| ATEX category Gas  | II 2G   |
| ATEX category Dust   | II 2D   |
| Explosion ignition protection type Gas                             | Ex h IIC T4 Gb X  |
| Explosion ignition protection type Dust                            | 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 operating pressure and 0° rotation angle               | 30.1 Nm  |
| Torque at nominal operating pressure with 90° swivel angle             | 15.7 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.                     |
| Spring return torque with 0° swivel angle                              | 14.8 Nm  |
| Spring return torque at 90°  | 29.2 Nm  |
| 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)                                 | 7.8E-04  |
| Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel | 3.1 l  |
| angle-0°   |  |
| Product weight   | 3,746 g  |
| Shaft connection   | T17  |
| Pneumatic connection   | 1/8 NPT  |
| Materials note   | Conforms to RoHS   |
| Material of connecting plate   | Anodised wrought aluminium alloy                                     |
| Material cover   | Die-cast aluminium, coated   |
| Material seals   | NBR  |
| Material spring  | Spring steel   |
| Material housing   | Anodised wrought aluminium alloy                                     |
| Material piston  | Aluminium die cast   |
| Material bearing   | POM  |
| Material cam   | High alloy steel, non-corrosive                                      |
| Material screws  | High alloy steel, non-corrosive                                      |
| Material shaft   | Steel, nickel-plated   |