

semi-rotary drive

DFPD-20-RP-90-RS30-F05

Part number: 8048014

FESTO

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



Data sheet

| Feature | Value |
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| Size of actuator | 20 |
| Flange hole pattern | F05 |
| Swivel angle | 90 deg |
| End-position adjustment range at 0° | -5 ... 5 deg |
| End-position adjustment range at 90° | -5 ... 5 deg |
| Shaft connection depth | 12 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 |
| Safety Integrity Level (SIL) | Product can be used in SRP/CS up to SIL 2 (high demand) |
| Operating pressure | 2 ... 8 bar |
| Nominal operating pressure | 3 bar |
| CE mark (see declaration of conformity) | to EU directive explosion protection (ATEX) |
| Certificate issuing department | TÜV Rheinland |
| 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 |
| 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) |
| Storage temperature | -20 ... 60 °C |
| Ambient temperature | -20 ... 80 °C |
| Torque at rated operating pressure and 0° rotation angle | 7.4 Nm |
| Torque at nominal operating pressure with 90° swivel angle | 3.8 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 | 3.6 Nm |
| Spring return torque at 90° | 7.1 Nm |
| Air consumption at 6 bar per cycle 0°-90°-0° | 0.8 l |
| Product weight | 1,371 g |
| Shaft connection | T11 |
| Pneumatic connection | G1/8 |
| Materials note | Conforms to RoHS |
| Material of connecting plate | Anodised wrought aluminium alloy |

| Feature | Value |
|------------------|----------------------------------|
| 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 | Stainless steel casting |
| Material screws | High alloy steel, non-corrosive |
| Material shaft | Steel, nickel-plated |