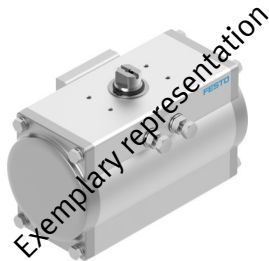


# Quarter turn actuator DFPD-160-

Part number: 8042189

FESTO



 [General operating condition](#)

## Data sheet

Overall data sheet – Individual values depend upon your configuration.

| Feature                                                                  | Value                                                                                                 |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Size of valve actuator                                                   | 160                                                                                                   |
| Flange hole pattern                                                      | F07<br>F0710                                                                                          |
| Swivel angle                                                             | 90 deg                                                                                                |
| End-position adjustment range at 0°                                      | -5 deg ... 5 deg                                                                                      |
| End-position adjustment range at nominal swivel angle                    | -5 deg ... 5 deg                                                                                      |
| Shaft connection depth                                                   | 19 mm ... 24 mm                                                                                       |
| Fitting connection conforms to standard                                  | ISO 5211                                                                                              |
| Mounting position                                                        | optional                                                                                              |
| Mode of operation                                                        | Double-acting<br>Single-acting                                                                        |
| Design                                                                   | Rack and pinion                                                                                       |
| Closing direction                                                        | Closes to the right<br>Closes to the left                                                             |
| Symbol                                                                   | 00991265<br>00991266                                                                                  |
| 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                                                                                |
| 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                                               | 0.2 MPa ... 0.6 MPa                                                                                   |
| Nominal operating pressure                                               | 2 bar ... 6 bar                                                                                       |
| Nominal operating pressure                                               | 29 psi ... 87 psi                                                                                     |
| Maritime classification                                                  | See certificate                                                                                       |
| CE mark (see declaration of conformity)                                  | To EU Explosion Protection Directive (ATEX)                                                           |
| UKCA marking (see declaration of conformity)                             | To UK EX instructions                                                                                 |
| Explosion protection certification outside the EU                        | EPL Db (GB)<br>EPL Gb (GB)                                                                            |
| Explosion protection                                                     | Zone 1 (ATEX)<br>Zone 1 (UKEX)<br>Zone 2 (ATEX)<br>Zone 21 (ATEX)<br>Zone 21 (UKEX)<br>Zone 22 (ATEX) |

| Feature                                                                         | Value                                                                                                                                                                                  |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Certificate issuing authority                                                   | 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 for gas                                      | Ex h IIC T3 Gb X<br>Ex h IIC T4 Gb X<br>Ex h IIC T6 Gb X                                                                                                                               |
| Explosion ignition protection type for dust                                     | Ex h IIIC T85°C Db X                                                                                                                                                                   |
| Explosion ambient temperature                                                   | -20 °C ≤ Ta ≤ +80 °C<br>-50°C ≤ Ta ≤ +60°C<br>0°C ≤ Ta ≤ +150°C                                                                                                                        |
| Operating medium                                                                | Compressed air to ISO 8573-1:2010 [7:4:4]                                                                                                                                              |
| Note on operating and pilot medium                                              | Dew point at least 10 °C below the ambient temperature and temperature of the medium<br>Lubricated operation possible (in which case lubricated operation will always be required)     |
| LABS (PWIS) conformity                                                          | VDMA24364-B1/B2-L<br>VDMA24364 zone III                                                                                                                                                |
| Storage temperature                                                             | -20 °C ... 60 °C                                                                                                                                                                       |
| Ambient temperature                                                             | -50 °C ... 150 °C                                                                                                                                                                      |
| Torque at nominal operating pressure and 0° swivel angle                        | 39.3 Nm ... 161 Nm                                                                                                                                                                     |
| Torque at nominal operating pressure and 90° swivel angle                       | 20.5 Nm ... 161 Nm                                                                                                                                                                     |
| Note on 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 at 0° swivel angle                                         | 19.2 Nm ... 57.7 Nm                                                                                                                                                                    |
| Spring return torque at 90° swivel angle                                        | 38.1 Nm ... 114.2 Nm                                                                                                                                                                   |
| Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0° | 5.9 l ... 14 l                                                                                                                                                                         |
| Product weight                                                                  | 6082 g ... 7206 g                                                                                                                                                                      |
| Shaft connection                                                                | T17<br>T22                                                                                                                                                                             |
| Pneumatic connection                                                            | G1/4<br>1/4 NPT                                                                                                                                                                        |
| Note on materials                                                               | RoHS-compliant                                                                                                                                                                         |
| Material sub-base                                                               | Coated wrought aluminium alloy                                                                                                                                                         |
| Material cover                                                                  | Anodised die-cast aluminium                                                                                                                                                            |
| Material seals                                                                  | FPM<br>FVMQ<br>NBR                                                                                                                                                                     |
| Material spring                                                                 | Spring steel                                                                                                                                                                           |
| Material housing                                                                | Anodised aluminium<br>Aluminium, powder-coated                                                                                                                                         |
| Material piston                                                                 | Die-cast aluminium                                                                                                                                                                     |
| Material bearing                                                                | POM<br>PPS reinforced                                                                                                                                                                  |
| Material cam                                                                    | High-alloy stainless steel                                                                                                                                                             |
| Material screws                                                                 | High-alloy stainless steel                                                                                                                                                             |
| Material shaft                                                                  | Nickel-plated steel<br>High-alloy stainless steel                                                                                                                                      |