

# Quarter turn actuator DAPS-1920-090-RS3-F16

Part number: 549691

FESTO



 [General operating condition](#)

## Data sheet

| Feature  | Value  |
|--|--|
| Size of valve actuator                               | 1920   |
| Flange hole pattern                                  | F16  |
| Swivel angle   | 90 deg   |
| End-position adjusting range at 0°                   | -5 deg ... 5 deg   |
| End-position adjusting range at nominal swivel angle | 85 deg ... 95 deg  |
| Depth shaft connection                               | 49 mm  |
| Standard connection for valve                        | ISO 5211   |
| Cushioning   | No cushioning  |
| Mounting position                                    | Any  |
| Mode of operation                                    | Single-acting  |
| Structural design                                    | Kinematic yoke system  |
| Position sensing                                     | None   |
| Closing direction                                    | Closes to the right  |
| Symbol   | 00991266   |
| Valve connection conforms to standard                | VDI/VDE 3845 (NAMUR)   |
| Safety integrity level (SIL)                         | Up to SIL 2 low demand mode  |
| Connection pressure for spring force                 | 0.42 MPa   |
| Connection pressure for spring force                 | 4.2 bar  |
| Operating pressure                                   | 0.42 MPa ... 0.84 MPa  |
| Operating pressure                                   | 4.2 bar ... 8.4 bar  |
| Nominal operating pressure                           | 0.56 MPa   |
| Nominal operating pressure                           | 5.6 bar  |
| Max. swivel frequency at 6 bar                       | 1 Hz   |
| CE marking (see declaration of conformity)           | as per EU explosion protection directive (ATEX)                    |
| UKCA marking (see declaration of conformity)         | acc. to UK EX instructions   |
| Explosion prevention and protection                  | Zone 1 (ATEX)<br>Zone 2 (ATEX)<br>Zone 21 (ATEX)<br>Zone 22 (ATEX) |
| Certificate issuing authority                        | German Technical Control Board North (TÜV Nord) 212170801          |
| ATEX category gas                                    | II 2G  |
| ATEX category for dust                               | II 2D  |
| Type of ignition protection for gas                  | Ex h IIC T6...T3 Gb X  |
| Type of (ignition) protection for dust               | Ex h IIIC T85°C...T200°C Db X                                      |
| Explosive ambient temperature                        | -20°C ≤ Ta ≤ +60°C   |

| Feature   | Value   |
|---|---|
| Operating medium  | Compressed air as per ISO 8573-1:2010 [7:4:4]   |
| Information on operating and pilot media                      | Operation with oil lubrication possible (required for further use)  |
| Corrosion resistance class (CRC)                              | 3 - High corrosion stress   |
| LABS (PWIS) conformity  | VDMA24364-B1/B2-L   |
| Ambient temperature   | -20 °C ... 80 °C  |
| Torque at nominal operating pressure and 0° swivel angle      | 2240 Nm   |
| Torque at nominal operating pressure and 50° swivel angle     | 1200 Nm   |
| Torque at nominal operating pressure and 90° swivel angle     | 1760 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. |
| Spring return torque at 0° swivel angle                       | 960 Nm  |
| Spring return torque with 50° swivel angle                    | 720 Nm  |
| Spring return torque with 90° swivel angle                    | 1440 Nm   |
| Spring force  | 3   |
| Air consumption at 6 bar per cycle 0°-nominal swivel angle-0° | 91.7 l  |
| Product weight  | 67000 g   |
| Shaft connection  | T46   |
| Pneumatic connection  | G3/8  |
| Note on materials   | RoHS compliant  |
| Cover material  | Wrought aluminum alloy  |
| Seals material  | FPM<br>NBR<br>PUR   |
| Housing material  | Wrought aluminum alloy  |
| Material of screws  | High-alloy steel  |
| Shaft material  | High-alloy steel  |
| Material number for shaft                                     | 1,4305  |