

# Quarter turn actuator DAPS-0180-090-RS4-F0710

Part number: 533450

**FESTO**



## Data sheet

| Feature                                              | Value                                                              |
|------------------------------------------------------|--------------------------------------------------------------------|
| Size of valve actuator                               | 0180                                                               |
| Flange hole pattern                                  | F07<br>F10                                                         |
| Swivel angle                                         | 90 deg                                                             |
| End-position adjusting range at 0°                   | -1 deg...9 deg                                                     |
| End-position adjusting range at nominal swivel angle | 81 deg...91 deg                                                    |
| Depth shaft connection                               | 24.3 mm                                                            |
| Information on the end-position adjusting range      | One end position optionally adjustable                             |
| 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                                                |
| 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                 | 0.56 MPa<br>5.6 bar                                                |
| Operating pressure                                   | 0.56 MPa...0.84 MPa<br>5.6 bar...8.4 bar                           |
| Nominal operating pressure                           | 0.56 MPa<br>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                                                              |

| Feature                                                       | Value                                                                                                                                                                 |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                                                    |
| 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      | 180 Nm                                                                                                                                                                |
| Torque at nominal operating pressure and 50° swivel angle     | 90 Nm                                                                                                                                                                 |
| Torque at nominal operating pressure and 90° swivel angle     | 120 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                       | 120 Nm                                                                                                                                                                |
| Spring return torque with 50° swivel angle                    | 90 Nm                                                                                                                                                                 |
| Spring return torque with 90° swivel angle                    | 180 Nm                                                                                                                                                                |
| Spring force                                                  | 4                                                                                                                                                                     |
| Air consumption at 6 bar per cycle 0°-nominal swivel angle-0° | 7 l                                                                                                                                                                   |
| Product weight                                                | 8900 g                                                                                                                                                                |
| Shaft connection                                              | T22                                                                                                                                                                   |
| Pneumatic connection                                          | G1/8                                                                                                                                                                  |
| 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                                                                                                                                                                |