

# Quarter turn actuator DAPS-0120-090-RS2-F0710-T6

Part number: 553197

FESTO



 General operating condition

## Data sheet

| Feature                                               | Value                                                              |
|-------------------------------------------------------|--------------------------------------------------------------------|
| Size of valve actuator                                | 0120                                                               |
| Flange hole pattern                                   | F07<br>F10                                                         |
| Swivel angle                                          | 90 deg                                                             |
| End-position adjustment range at 0°                   | -1 deg ... 9 deg                                                   |
| End-position adjustment range at nominal swivel angle | 81 deg ... 91 deg                                                  |
| Shaft connection depth                                | 24.8 mm                                                            |
| Note on end-position adjusting range                  | One end position optionally adjustable                             |
| Fitting connection conforms to standard               | ISO 5211                                                           |
| Cushioning                                            | No cushioning                                                      |
| Mounting position                                     | optional                                                           |
| Mode of operation                                     | Single-acting                                                      |
| Design                                                | Scotch yoke system                                                 |
| Position detection                                    | Without                                                            |
| Closing direction                                     | Closes to the right                                                |
| Symbol                                                | 00991266                                                           |
| Valve connection conforms to standard                 | VDI/VDE 3845 (NAMUR)                                               |
| Safety Integrity Level (SIL)                          | To SIL 2 Low Demand mode                                           |
| Supply pressure for spring strength                   | 0.35 MPa                                                           |
| Supply pressure for spring strength                   | 3.5 bar                                                            |
| Operating pressure                                    | 0.35 MPa ... 0.84 MPa                                              |
| Operating pressure                                    | 3.5 bar ... 8.4 bar                                                |
| Nominal operating pressure                            | 0.56 MPa                                                           |
| Nominal operating pressure                            | 5.6 bar                                                            |
| Max. swivel frequency at 0.6 MPa (6 bar, 87 psi)      | 1 Hz                                                               |
| CE mark (see declaration of conformity)               | To EU Explosion Protection Directive (ATEX)                        |
| UKCA marking (see declaration of conformity)          | To UK EX instructions                                              |
| Explosion 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 dust                                    | II 2D                                                              |
| Explosion ignition protection type for gas            | Ex h IIC T6...T3 Gb X                                              |
| Explosion ignition protection type for dust           | Ex h IIIC T85°C...T200°C Db X                                      |

| Feature                                                                         | Value                                                                                                                                                                                  |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Explosion ambient temperature                                                   | -50°C ≤ Ta ≤ +60°C                                                                                                                                                                     |
| Operating medium                                                                | Compressed air to ISO 8573-1:2010 [7:4:4]                                                                                                                                              |
| Note on operating and pilot medium                                              | Lubricated operation possible (in which case lubricated operation will always be required)                                                                                             |
| Corrosion resistance class CRC                                                  | 3 - high corrosion stress                                                                                                                                                              |
| LABS (PWIS) conformity                                                          | VDMA24364 zone III                                                                                                                                                                     |
| Ambient temperature                                                             | -50 °C ... 60 °C                                                                                                                                                                       |
| Torque at nominal operating pressure and 0° swivel angle                        | 150 Nm                                                                                                                                                                                 |
| Torque at nominal operating pressure and 50° swivel angle                       | 82.5 Nm                                                                                                                                                                                |
| Torque at nominal operating pressure and 90° swivel angle                       | 125 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                                         | 50 Nm                                                                                                                                                                                  |
| Spring return torque at 50° swivel angle                                        | 37.5 Nm                                                                                                                                                                                |
| Spring return torque at 90° swivel angle                                        | 75 Nm                                                                                                                                                                                  |
| Spring strength                                                                 | 2                                                                                                                                                                                      |
| Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0° | 5.6 l                                                                                                                                                                                  |
| Product weight                                                                  | 6800 g                                                                                                                                                                                 |
| Shaft connection                                                                | T22                                                                                                                                                                                    |
| Pneumatic connection                                                            | G1/8                                                                                                                                                                                   |
| Note on materials                                                               | RoHS-compliant                                                                                                                                                                         |
| Material cover                                                                  | Wrought aluminium alloy                                                                                                                                                                |
| Material seals                                                                  | FVMQ<br>PTFE reinforced                                                                                                                                                                |
| Material housing                                                                | Wrought aluminium alloy                                                                                                                                                                |
| Material screws                                                                 | High-alloy steel                                                                                                                                                                       |
| Material shaft                                                                  | High-alloy steel                                                                                                                                                                       |
| Material number shaft                                                           | 1.4305                                                                                                                                                                                 |