

# Semi-rotary actuator

## DAPS-0120-090-RS1-F0710

Part number: 533443

FESTO

Single-acting, air connection as per VDI/VDE 3845, Namur valves can be directly flange-mounted



## Data sheet

| Feature  | Value  |
|--|--|
| Size of actuator                                     | 0120   |
| Flange hole pattern                                  | F07<br>F10   |
| Swivel angle   | 90 deg   |
| End-position adjustment range at 0°                  | -1 ... 9 deg   |
| End-position adjusting range at nominal swivel angle | 81 ... 91 deg  |
| Shaft connection depth                               | 24.8 mm  |
| Note regarding end position setting range            | One selectable end position is adjustable  |
| Fitting connection conforms to standard              | ISO 5211   |
| Cushioning   | No cushioning  |
| Assembly position                                    | Any  |
| Mode of operation                                    | single-acting  |
| Design structure                                     | Yoke kinematics  |
| Position detection                                   | No   |
| Closing direction                                    | right-closing  |
| Valve connection conforms to standard                | VDI/VDE 3845 (NAMUR)   |
| Safety Integrity Level (SIL)                         | Product can be used in SRP/CS up to SIL 2 low demand   |
| Connection pressure for spring force                 | 0.28 MPa   |
| Supply pressure for spring strength                  | 2.8 bar  |
| Operating pressure MPa                               | 0.28 ... 0.84 MPa  |
| Working pressure                                     | 2.8 ... 8.4 bar  |
| Nominal operating pressure                           | 0.56 MPa   |
| Nominal working pressure                             | 5.6 bar  |
| Max. swivel frequency at 0.6 MPa (6 bar, 87 psi)     | 1 Hz   |
| CE symbol (see declaration of conformity)            | according to EU-Ex protection guideline (ATEX)   |
| UKCA marking (see declaration of conformity)         | To UK EX instructions  |
| Certificate issuing department                       | TÜV Nord 212170801   |
| ATEX category Gas                                    | II 2G  |
| ATEX category Dust                                   | II 2D  |
| Explosion ignition protection type Gas               | Ex h IIC T6...T3 Gb X  |
| Explosion ignition protection type Dust              | Ex h IIIC T85°C...T200°C Db X  |
| Explosion-proof ambient temperature                  | -20°C ≤ Ta ≤ +60°C   |
| Operating medium                                     | Compressed air in accordance with ISO8573-1:2010 [7:4:4]   |
| Note on operating and pilot medium                   | Lubricated operation possible (subsequently required for further operation)  |
| Corrosion resistance classification CRC              | 3 - High corrosion stress  |
| PWIS conformity                                      | VDMA24364-B1/B2-L  |
| Ambient temperature                                  | -20 ... 80 °C  |
| 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            | 40 Nm  |
| Spring return torque with 50° swivel angle           | 30 Nm  |
| Spring return torque at 90°                          | 60 Nm  |

| Feature   | Value                  |
|---|------------------------|
| Spring strength   | 1                      |
| Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0° | 5.6 l                  |
| Product weight  | 5,800 g                |
| Shaft connection  | T22                    |
| Pneumatic connection  | G1/8                   |
| Materials note  | Conforms to RoHS       |
| Material cover  | Wrought Aluminum alloy |
| Material seals  | FPM<br>NBR<br>PUR      |
| Material housing  | Wrought Aluminum alloy |
| Material screws   | High alloy steel       |
| Material shaft  | High alloy steel       |
| Material number for shaft   | 1.4305                 |