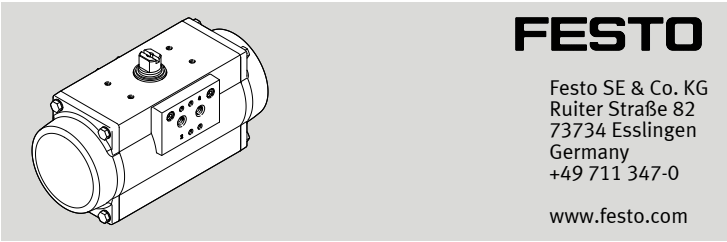


DFPD
Quater turn actuator



Operating conditions | EX

8099381
2018-10a
[8099383]



Translation of the original instructions

1 Identification EX

Table with 3 columns: Identification, Standard variant, and Temperature range. It lists various EX certification levels (II 2G, II 2D) and temperature ranges for different actuator variants (T4, T6).

Tab. 1

2 Further applicable documents

NOTICE!
Technical data for the product can have different values in other documents. For operation in an explosive atmosphere, the technical data in this document always have priority.

3 Certified products

Table with 2 columns: Type and Type. It lists various Festo actuator models (DFPD-10, DFPD-300, etc.) and their corresponding types.

Tab. 2

4 Function

Pressurising the cylinder chambers causes the piston in the pipe to move back and forth. The conversion of the linear movement into turning movement is carried out by a gear rack and pinion gear unit.

5 Safety

5.1 Safety instructions

- The device can be used under the stated operating conditions in zones 1 and 2, explosive gas atmospheres, and in zones 21 and 22, explosive dust atmospheres.

- All work must be carried out outside of potentially explosive areas.
- The device is not intended for use with other fluids.
- It is not intended to be used as a spring and damping element. Impermissible loads may occur.

5.2 Intended use

The actuator is intended for use for fittings with a movement range limited to 90°, e. g. ball valves and butterfly valves:

5.3 Identification X: special conditions

- Danger of electrostatic discharge.
- Ambient temperature
Standard: -20°C ≤ T\_a ≤ +80°C
Variant T4: 0°C ≤ T\_a ≤ +150°C
Variant T6: -50°C ≤ T\_a ≤ +60°C

6 Commissioning

- Seal unused openings with blanking plugs or slot covers.

WARNING!

- The discharge of electrostatically charged parts can lead to ignitable sparks.
- Prevent electrostatic charging by taking appropriate installation and cleaning measures.
- For equipotential bonding, connect all the conducting metal parts with one another.
- Include the shaft in the system's equipotential bonding.
- Include the housing in the equipotential bonding of the system.
- Earth the entire system.

WARNING!

- Corrosive gases and dust particles inside components can result in changes to material and material damage. Explosive gas atmospheres or dust should not penetrate into the spring area of single-acting drives.
- Install an exhaust return using a 3/2-way valve that is suitable for zones 1, 2, 21 and 22 or
- extract the air in the spring area via tubing lines at connection 4 outside potentially explosive areas.

NOTICE!

Installation and commissioning may only be performed in accordance with the operating instructions and by qualified personnel.

NOTICE!

Escaping exhaust air can swirl up dust and create an explosive dust atmosphere.

NOTICE!

Strong charge-generating processes can charge non-conductive layers and coatings on metal surfaces.

NOTICE!

Related type of ignition protection: c (constructional safety)

NOTICE!

Particulate matter in the compressed air can cause electrostatic charges.

i
In the following NAMUR valves from Festo, the exhaust air return is included in the design:
• VSNC- ...
• VOFC/VOFD- ...

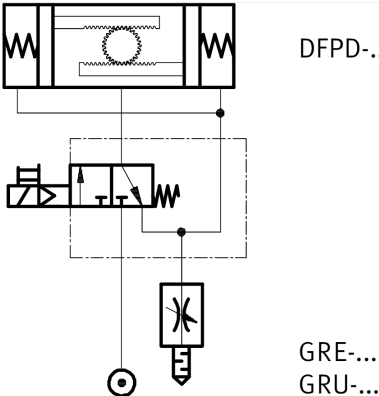


Fig. 1 Exhaust return

7 Maintenance and care

- Service the device after 6 months at the latest and ensure smooth functioning.

8 Fault clearance

Malfunction	Remedy
External damage after visual inspection	Replace device or send the device back to the Festo repair service.
The mounting is not secure	Tighten the retaining screws
Audible leakage	Replace wear part or send the device back to the Festo repair service.

Tab. 3  
The replacement of wearing and spare parts is possible in individual cases.  
Repairs of this type must only be carried out by trained and authorised specialists.  
– Please contact your Festo technical consultant.

9 Technical data

Operating conditions		
Max. operating pressure	[bar]	8
Ambient temperature	[°C]	–20 ... +80
Ambient temperature T4	[°C]	0 ... +150
Ambient temperature T6	[°C]	–50 ... +60
Max. operating frequency	[Hz]	1
Torques	➔ <a href="http://www.festo.com/catalogue">www.festo.com/catalogue</a>	
Operating medium	Compressed air to ISO 8573-1:2010[7:4:4]	
Operating medium T4, T6	Compressed air to ISO 8573-1:2010[7:2:4]	
Note on the operating medium	Pressure dew point at least 10 °C below the outside temperature.	
Mounting position	Any	
Materials		
Seals	Standard: NBR T6: FVMQ T4: FKM	
All aluminium alloys used contain less than 7.5 % magnesium (Mg).		

Tab. 4