

# Quarter turn actuators

## DFPD ★



Overview, configuration and ordering  
→ [www.festo.com/catalogue/dfpd](http://www.festo.com/catalogue/dfpd)



Additional information, support and user documentation  
→ [www.festo.com/sp/dfpd](http://www.festo.com/sp/dfpd)



Quick ordering of basic designs  
→ page 390



Selected types in accordance with the ATEX Directive  
for explosive atmospheres  
→ [www.festo.com/ex](http://www.festo.com/ex)



- + Flange hole pattern to ISO 5211
- + NAMUR connection pattern for solenoid valves/sensor boxes to VDI/VDE 3845
- + With rack and pinion unit

- + Size 10 ... 2300
- + Torque 10 ... 2300 Nm
- + Swivel angle 0 ... 90°, 0 ... 180°

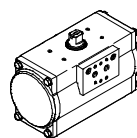
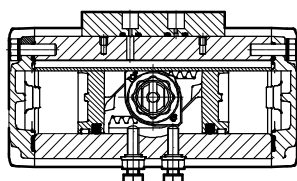
## Quarter turn actuators DFPD

### Key features

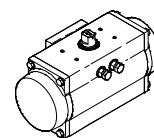
#### Function

The DFPD series features a rack and pinion combination with a constant torque characteristic across the entire swivel range. Sizes 10 to 2300 are available. The DFPD is suitable for the automation of butterfly valves, ball valves and air

dampers. It is also suitable for water/wastewater, beverage, pharmaceutical and process automation. The modular and compact design of the DFPD allows various spring configurations as a suitable solution for different applications.



DFPD-...-D  
Double-acting



DFPD-...-S  
Single-acting

#### Types of connection

- Port pattern to NAMUR VDI/VDE 3845 for mounting solenoid valves, position sensors and positioners
- Standards-base connection to ISO 5211

#### Variants

##### High temperature

DFPD-...-T4

- Seals made of FKM and plain bearings made of PPS
- For applications up to +150 °C
- II 2G c T3 X
- II 2D c 175°C X
- 0 °C ≤ Ta ≤ +150 °C

##### Low temperature

DFPD-...-T6

- Seals made of FVMQ for applications down to -50 °C
- II 2G c T6 X
- II 2D c 85°C X
- -50 °C ≤ Ta ≤ +60 °C

##### Closes to the left and right

DFPD-...-R/L

- The modular system offers the option of closing to the left. This is done by turning the pistons

##### Spring configuration

DFPD-...-S

- The spring force can be adapted to the system's supply pressure in steps of 0.5 bar through free selection of the number of spring cartridges (4 to 12)

##### Epoxy coating

DFPD-...-EP

- Actuator with epoxy coating

##### Stainless steel shaft

DFPD-...-R3

- With stainless steel shaft

##### NPT version

DFPD-...-N

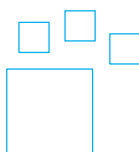
- Pneumatic connections with NPT threads

##### 180° version

DFPD-...-180

- Sizes 40, 120, 240, 480 double-acting also available with 180° swivel angle

#### Ordering data – Product options



Configurable product  
This product and all its product options can be ordered using the configurator.

The configurator can be found at  
→ [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Part No.	Type code
8042184	DFPD-10
8042185	DFPD-20
8042186	DFPD-40
8042187	DFPD-80
8042188	DFPD-120
8042189	DFPD-160
8042190	DFPD-240
8042191	DFPD-300
8042192	DFPD-480
8042193	DFPD-700
8042194	DFPD-900
8042195	DFPD-1200
8042196	DFPD-2300

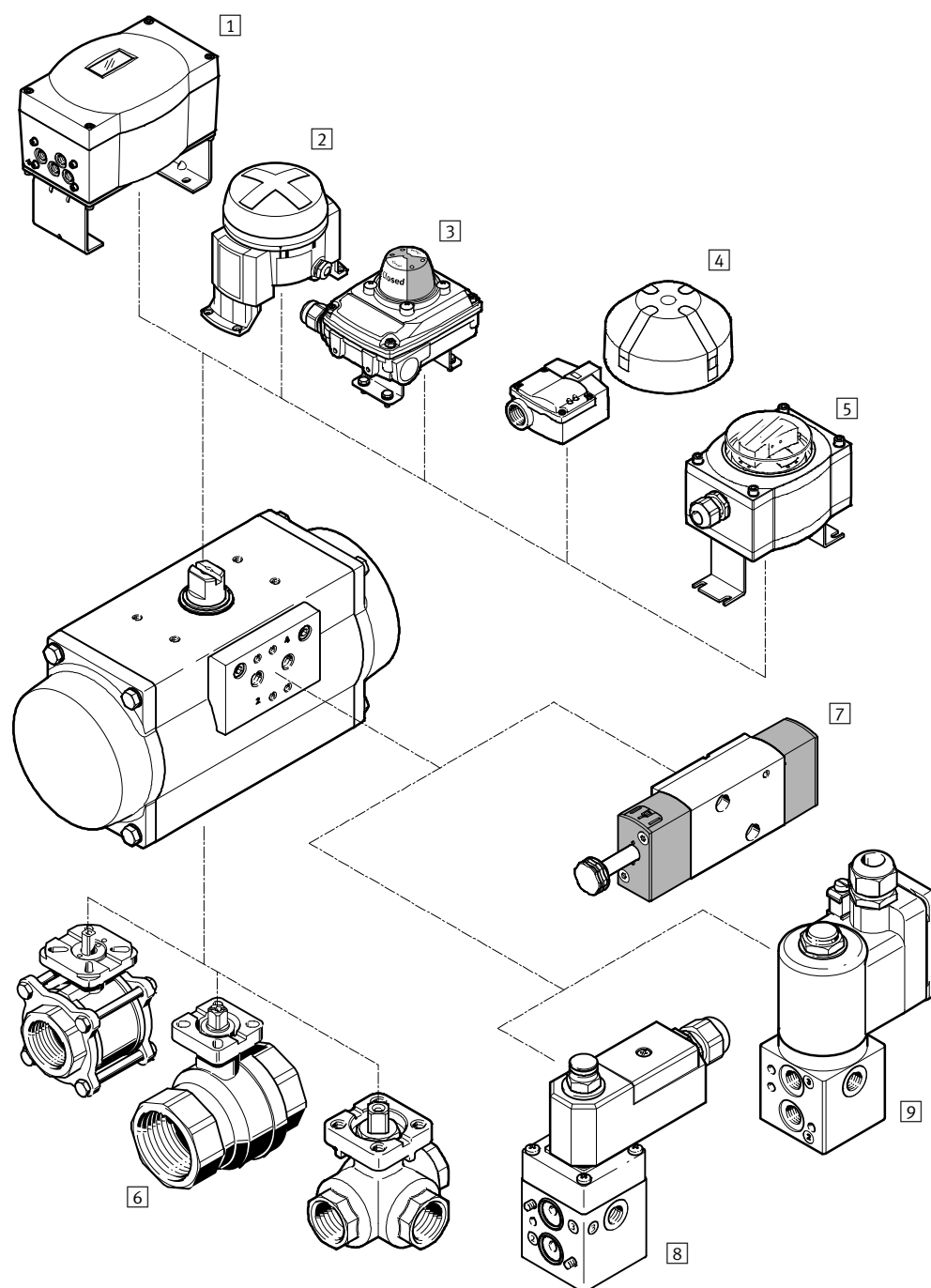
## Quarter turn actuators DFPD

## Key features

Size	Flange pattern	Shaft connection	Shaft connection depth [mm]	Pneumatic connection
10	F03	V9	10.7	G 1/8
	F04			1/8 NPT
20	F03	V9	10.7	G 1/8
	F04	V11	13.2	1/8 NPT
	F05			
40	F04	V11	13.2	G 1/8
	F05F07	V14	16.5	1/8 NPT
80	F05F07	V17	19.3	G 1/8 1/8 NPT
120	F05F07	V17	19.3	G 1/4 1/4 NPT
160	F07F10	V22	24.3	G 1/4 1/4 NPT
240	F07F10	V22	24.3	G 1/4 1/4 NPT
300	F07F10	V22	24.3	G 1/4 1/4 NPT
480	F10F12	V27	29.5	G 1/4 1/4 NPT
700	F10F12	V27	29.7	G 1/4 1/4 NPT
900	F10F12	V27	30.2	G 1/4
	F14	V36	40.2	1/4 NPT
1200	F10F12	V27	31	G 1/4
	F14	V36	40	1/4 NPT
2300	F12F16	V46	50	G 1/4
	F14	V36	40	1/4 NPT

## Quarter turn actuators DFPD

### Peripherals overview



## Peripherals overview

Mounting components and accessories			
	Description		→ Page/Internet
1	Positioner CMSX	For controlling the position of quarter turn actuators in process automation systems	289
2	Limit switch attachment DAPZ	Round design, variant AR, electrical, inductive or inductive and explosion-proof sensing	279
3	Sensor box SRBC	For electrical position feedback and monitoring the position of process valves actuated using quarter turn actuators	217
4	Sensor box SRBG	For electrical position feedback and monitoring the position of process valves actuated using quarter turn actuators	235
5	Sensor box SRAP	Analogue sensor box continuously senses the entire swivel range and reports this back to the controller	269
6	Ball valve VAPB, VZBA	2-way brass or stainless steel, corrosion-resistant; 3-way stainless steel, corrosion-resistant	542, 495
7	Solenoid valve VSNC	For single- and double-acting quarter turn actuators with a port pattern to VDI/VDE 3845	23
8	Solenoid valve VOFC	Solenoid valve with solenoid coil, port pattern to Namur	85
9	Solenoid valve VOFD	Solenoid valve with solenoid coil, port pattern to Namur	151

## Quarter turn actuators DFPD

### Type codes

		DFPD	-		-		-		-	RP	-		-		-		-		-	
<b>Type</b>																				
DFPD	Quarter turn actuator																			
<b>System of units</b>																				
-	Metric																			
N	Imperial																			
<b>Version</b>																				
-	Standard																			
<b>Size</b>																				
10	10																			
20	20																			
40	40																			
80	80																			
120	120																			
160	160																			
240	240																			
300	300																			
480	480																			
700	700																			
900	900																			
1200	1200																			
2300	2300																			
<b>Design</b>																				
RP	Rack and pinion																			
<b>Yoke type</b>																				
-	None																			
<b>Swivel angle</b>																				
90	90°																			
180	180°																			
<b>Swivel direction</b>																				
L	To the left																			
R	To the right																			
<b>Function</b>																				
D	Double-acting																			
S	Single-acting																			
<b>Spring configuration</b>																				
-	None																			
20	For connection pressure 2 bar																			
25	For connection pressure 2.5 bar																			
30	For connection pressure 3 bar																			
35	For connection pressure 3.5 bar																			
40	For connection pressure 4 bar																			
45	For connection pressure 4.5 bar																			
50	For connection pressure 5 bar																			
55	For connection pressure 5.5 bar																			
60	For connection pressure 6 bar																			