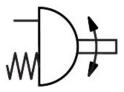
FESTO

Quarter turn actuator DFPD-160-RP-90-RS60-F07-17-R3-C-VDE2

Part number: 8144443





Data sheet

Feature	Value
Size of valve actuator	160
Flange hole pattern	F07
Swivel angle	90 deg
End-position adjustment range at 0°	-5 deg5 deg
End-position adjustment range at nominal swivel angle	-5 deg5 deg
Shaft connection depth	19 mm
Fitting connection conforms to standard	ISO 5211
Mounting position	optional
Mode of operation	Single-acting
Design	Rack and pinion
Closing direction	Closes to the right
Valve connection conforms to standard	VDI/VDE 3845 (NAMUR)
Connection point for positioner and position sensor conforms to standard	VDI/VDE 3845 size AA 1
Device type according to VDMA 66413	Safety device
Safety function	The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is realised by the spring force of the spring assembly.
Safety Integrity Level (SIL)	To SIL 2 Low Demand mode Up to SIL 3 in a redundant architecture Up to SIL 1 high demand mode
Certified for safety function to ISO 13849 and IEC 61508 (SIL)	Product can be used in SRP/CS up to SIL 2 (Low Demand) Product can be used in SRP/CS up to SIL 1 (High Demand) Up to SIL 3 in a redundant architecture
Burst pressure	24 bar
Operating pressure	0.2 MPa0.8 MPa 2 bar8 bar 29 psi116 psi
Nominal operating pressure	0.6 MPa 6 bar 87 psi
Maritime classification	See certificate
CE mark (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)
UKCA marking (see declaration of conformity)	To UK EX instructions

Explosion protection certification outside the EU EPL Db (GB) EPL Gb (GB) Explosion protection Zone 1 (ATEX) Zone 1 (UKEX) Zone 2 (ATEX) Zone 21 (UKEX) Zone 21 (UKEX)	
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Zone 22 (ATEX)	
Certificate issuing authority DNV TAP00001CE German Technical Control Board (TÜV) Rheinland 968/V	/1106.01/2023
ATEX category gas II 2G	
ATEX category dust	
Explosion ignition protection type for gas Ex h IIC T4 Gb X	
Explosion ignition protection type for dust Ex h IIIC T105°C Db X	
Explosion ambient temperature -20 °C <= Ta <= +80 °C	
Operating medium Compressed air to ISO 8573-1:2010 [7:4:4]	
Note on operating and pilot medium Dew point at least 10 °C below the ambient temperature temperature of the medium Lubricated operation possible (in which case lubricated always be required)	
LABS (PWIS) conformity VDMA24364-B1/B2-L	
Storage temperature -20 °C60 °C	
Ambient temperature -20 °C80 °C	
Torque at nominal operating pressure and 0° swivel angle 117.9 Nm	
Torque at nominal operating pressure and 90° swivel angle 61.4 Nm	
Note on torque The operating torque of the actuator must not be higher maximum permissible torque listed in ISO 5211, with re size of the mounting flange and of the coupling.	
Spring return torque at 0° swivel angle 57.7 Nm	
Spring return torque at 90° swivel angle 114.2 Nm	
Mean time to dangerous failure (MTTFd) 1126 years	
Probability of Failure per Hour (PFH) 1.01E-07	
Probability of Failure on Demand (PFD) 0.00078	
Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel 5.9 l angle-0°	
Product weight 7196 g	
Shaft connection T17	
Pneumatic connection G1/4	
Note on materials RoHS-compliant	
Material sub-base Anodised wrought aluminium alloy	
Material cover Anodised wrought aluminium alloy	
Material seals NBR	
Material spring Spring steel	
Material housing Anodised wrought aluminium alloy	
Material piston Die-cast aluminium	
Material bearing POM	
Material cam High-alloy stainless steel	
Material screws High-alloy stainless steel	
Material shaft High-alloy stainless steel	