

Semi-rotary drive DFPD-20-RP-90-RD-F05

Part number: 8048011

FESTO



 General operating condition

Data sheet

Feature	Value
Size of valve actuator	20
Flange hole pattern	F05
Swivel angle	90 deg
End-position adjustment range at 0°	-5 deg ... 5 deg
End-position adjustment range at nominal swivel angle	-5 deg ... 5 deg
Shaft connection depth	12 mm
Fitting connection conforms to standard	ISO 5211
Mounting position	optional
Mode of operation	Double-acting
Design	Rack and pinion
Closing direction	Closes to the right
Symbol	00991265
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	
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
Operating pressure	0.2 MPa ... 0.8 MPa
Operating pressure	2 bar ... 8 bar
Operating pressure	29 psi ... 116 psi
Nominal operating pressure	0.55 MPa
Nominal operating pressure	5.5 bar
Nominal operating pressure	79.75 psi
Maritime classification	See certificate
CE mark (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)
CE marking (see declaration of conformity)	To UK EX instructions
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)

Feature	Value
Explosion protection	Zone 1 (ATEX) Zone 1 (UKEX) Zone 2 (ATEX) Zone 21 (ATEX) Zone 21 (UKEX) 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	II 2D
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 and temperature of the medium Lubricated operation possible (in which case lubricated operation will always be required)
LABS (PWIS) conformity	VDMA24364-B1/B2-L
Storage temperature	-20 °C ... 60 °C
Ambient temperature	-20 °C ... 80 °C
Torque at nominal operating pressure and 0° swivel angle	20.1 Nm
Torque at nominal operating pressure and 90° swivel angle	20.1 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.
Mean time to dangerous failure (MTTFd)	1126 years
Probability of Failure per Hour (PFH)	1.01E-7
Probability of Failure on Demand (PFD)	0.00142
Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°	1.8 l
Product weight	1275 g
Shaft connection	T11
Pneumatic connection	G1/8
Note on materials	RoHS-compliant
Material sub-base	Anodised wrought aluminium alloy
Material cover	Die-cast aluminium, coated
Material seals	NBR
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	Nickel-plated steel