Quarter turn actuator DFPD-120-Part number: 8042188

FESTO



Data sheet

Feature	Value
Size of valve actuator	120
Flange hole pattern	F07 F0507
Swivel angle	90 deg180 deg
End-position adjusting range at 0°	-5 deg5 deg
End-position adjusting range at nominal swivel angle	-5 deg5 deg
Depth shaft connection	19 mm
Standard connection for valve	ISO 5211
Mounting position	Any
Mode of operation	Double-acting Single-acting
Structural design	Gear rack/pinion
Closing direction	Clockwise closing Closes to the left
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
Safety integrity level (SIL)	Up 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 safety-related parts of control systems up to SIL 2, low demand Product can be used in safety-related parts of control systems 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	0.2 MPa0.6 MPa 2 bar6 bar 29 psi87 psi
Maritime classification	See certificate
CE marking (see declaration of conformity)	as per EU explosion protection directive (ATEX)
UKCA marking (see declaration of conformity)	acc. to UK EX instructions

	Value
Explosion protection certification outside the EU	EPL Db (GB)
Explosion prevention and protection	EPL Gb (GB) Zone 1 (ATEX)
Expression protection and protection	Zone 1 (UKEX)
	Zone 2 (ATEX) Zone 21 (ATEX)
	Zone 21 (KIEX)
	Zone 22 (ATEX)
Certificate issuing authority	DNV TAP00001CE
	German Technical Control Board (TÜV) Rheinland 968/V 1106.01/2023
ATEX category gas	26
ATEX category for dust	2D
Type of ignition protection for gas	Ex h IIC T3 Gb X Ex h IIC T4 Gb X Ex h IIC T6 Gb X
Type of (ignition) protection for dust	Ex h IIIC T105°C Db X
	Ex h IIIC T175°C Db X Ex h IIIC T85°C Db X
Explosive ambient temperature	-20°C <= Ta <= +80°C
	-50°C <= Ta <= +60°C 0°C <= Ta <= +150°C
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Dew point min. 10 °C below the ambient temperature and temperature
	of medium
	Operation with oil lubrication possible (required for further use)
LABS (PWIS) conformity	VDMA24364-B1/B2-L VDMA24364 zone III
Storage temperature	-20 °C60 °C
Ambient temperature	-50 °C150 °C
Torque at nominal operating pressure and 0° swivel angle	28.7 Nm117.4 Nm
Torque at nominal operating pressure and 90° swivel angle	14.9 Nm117.4 Nm
Note about the torque	The actuator's operating torque must not be higher than the maximum permissible torque listed in ISO 5211, based on the size of the mounting flange and the coupling.
Spring return torque at 0° swivel angle	14 Nm42.1 Nm
Spring return torque with 90° swivel angle	27.8 Nm83.3 Nm
Air consumption at 6 bar per cycle 0°-nominal swivel angle-0°	4.3 l12.8 l
Product weight	4872 g7122 g
Shaft connection	T17
Pneumatic connection	G1/4
	1/8 NPT
Note on metaviole	1/4 NPT
Note on materials Material of sub-base	RoHS-compliant
Material of sub-base	Coated die-cast aluminum Wrought aluminum alloy, anodized
Cover material	Die-cast aluminum, coated Wrought aluminum alloy, anodized
Seals material	FPM
SealS HidleHdl	FVMQ
Makarial of anying	NBR Spring steel
Material of spring	Spring steel Discret aluminum coated
Housing material	Die-cast aluminum, coated Wrought aluminum alloy, anodized
Material of piston	Die-cast aluminum
Material of bearing	POM PPS-reinforced
Cam material	Steel
	High-alloy stainless steel
Material of screws Shaft material	High-alloy stainless steel Steel, nickel-plated