

Quarter turn actuator DFPD-4500-...

Part number: 8042198

FESTO



Data sheet

Feature	Value
Size of valve actuator	4500
Flange hole pattern	F16 F1625
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	50 mm...57 mm
Fitting connection conforms to standard	ISO 5211
Mounting position	optional
Mode of operation	Double-acting Single-acting
Design	Scotch yoke system Rack and pinion
Closing direction	Closes to the right 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 3
Safety function	The safety function consists of the drive switching to the defined safety switching position. This switching movement is realised by pressurising the relevant pressure chamber with compressed air. The value of the torque generated depends on the pressure difference between the two pressure chambers separated by the piston. 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
Certified for safety function to ISO 13849 and IEC 61508 (SIL)	Product can be used in SRP/CS up to SIL 2 (Low Demand) Up to SIL 3 in a redundant architecture
Burst pressure	23.37 bar
Operating pressure	0.2 MPa...0.78 MPa 2 bar...7.8 bar 29 psi...113.1 psi

Feature	Value
Nominal operating pressure	0.3 MPa...0.6 MPa 3 bar...6 bar 43.5 psi...87 psi
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 (ATEX) Zone 21 (UKEX) Zone 22 (ATEX)
Certificate issuing authority	German Technical Control Board (TÜV) Rheinland 968/V 2959.00/2025
ATEX category gas	II 2G
ATEX category dust	II 2D
Explosion ignition protection type for gas	Ex h IIC T6 Gb
Explosion ignition protection type for dust	Ex h IIIC T85°C Db
Explosion ambient temperature	-20 °C ≤ Ta ≤ +80 °C
Operating medium	Compressed air to ISO 8573-1:2010 [7:3:4]
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 zone III
Storage temperature	-20 °C...60 °C
Ambient temperature	-20 °C...80 °C
Torque at nominal operating pressure and 0° swivel angle	1316 Nm...4780 Nm
Torque at nominal operating pressure and 90° swivel angle	875 Nm...4780 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.
Spring return torque at 0° swivel angle	952 Nm...2002 Nm
Spring return torque at 90° swivel angle	1414 Nm...3476 Nm
Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°	105 l...404.6 l
Product weight	109000 g...228000 g
Shaft connection	T46 T55
Pneumatic connection	G1/2
Note on materials	RoHS-compliant
Material end cap	Steel
Material stop screw	Steel
Material sub-base	Anodised wrought aluminium alloy
Material cover	Painted die-cast aluminium
Material seals	NBR
Material spring	Spring steel
Material spring rod	Steel
Material housing	Anodised aluminium Spheroidal graphite cast iron
Material number housing	EN AW-6005
Material piston	Die-cast aluminium Spheroidal graphite cast iron
Material piston rod	Steel
Material bearing	POM
Material screws	High-alloy stainless steel
Material shaft	Nickel-plated steel
Material tie rod	Steel

Feature	Value
Material cylinder barrel	Steel