

Semi-rotary actuator

DAPS-0053-090-RS2-F0507-T6

Part number: 553195

FESTO

single-acting, air connection according to VDI/VDE 3845 Namur valves,
direct flange mounting, low-temperature version.



Data sheet

Feature	Value
Size of actuator	0053
Flange hole pattern	F05 F07
Swivel angle	90 deg
End-position adjustment range at 0°	-1 ... 9 deg
End-position adjusting range at nominal swivel angle	81 ... 91 deg
Shaft connection depth	19.3 mm
Note regarding end position setting range	One selectable end position is adjustable
Fitting connection conforms to standard	ISO 5211
Cushioning	No cushioning
Assembly position	Any
Mode of operation	single-acting
Design structure	Yoke kinematics
Position detection	No
Closing direction	right-closing
Valve connection conforms to standard	VDI/VDE 3845 (NAMUR)
Safety Integrity Level (SIL)	Product can be used in SRP/CS up to SIL 2 low demand
Connection pressure for spring force	0.35 MPa
Supply pressure for spring strength	3.5 bar
Operating pressure MPa	0.35 ... 0.84 MPa
Working pressure	3.5 ... 8.4 bar
Nominal operating pressure	0.56 MPa
Nominal working pressure	5.6 bar
Max. swivel frequency at 0.6 MPa (6 bar, 87 psi)	1 Hz
CE symbol (see declaration of conformity)	according to EU-Ex protection guideline (ATEX)
UKCA marking (see declaration of conformity)	To UK EX instructions
Certificate issuing department	TÜV Nord 212170801
ATEX category Gas	II 2G
ATEX category Dust	II 2D
Explosion ignition protection type Gas	Ex h IIC T6...T3 Gb X
Explosion ignition protection type Dust	Ex h IIIC T85°C...T200°C Db X
Explosion-proof ambient temperature	-50°C ≤ Ta ≤ +60°C
Operating medium	Compressed air in accordance with ISO8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (subsequently required for further operation)
Corrosion resistance classification CRC	3 - High corrosion stress
PWIS conformity	VDMA24364 zone III
Ambient temperature	-50 ... 60 °C
Torque at rated working pressure and 0° rotation angle	66 Nm
Torque at nominal operating pressure with 50° swivel angle	36.3 Nm
Torque at nominal operating pressure with 90° swivel angle	55 Nm
Note about the 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.

Feature	Value
Spring return torque with 0° swivel angle	22 Nm
Spring return torque with 50° swivel angle	16.5 Nm
Spring return torque at 90°	33 Nm
Spring strength	2
Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°	2.1 l
Product weight	3,000 g
Shaft connection	T17
Pneumatic connection	G1/8
Materials note	Conforms to RoHS
Material cover	Wrought Aluminum alloy
Material seals	FVMQ PTFE reinforced
Material housing	Wrought Aluminum alloy
Material screws	High alloy steel
Material shaft	High alloy steel
Material number for shaft	1.4305