

# Rotary actuator DSMI-25-270-A-B

Part number: 561690

FESTO



## Data sheet

Feature	Value
Adjustment range of swivel angle	0 deg ... 270 deg
Stroke reduction in the end positions	5 °
Shortest positioning stroke	5° when positioning 15° for Soft Stop
Piston diameter	25 mm
Swivel angle	0 deg ... 272 deg
Type code	DSMI
Cushioning	Elastic cushioning rings/pads at both ends
Mounting position, positioning	Any
Mounting position, Soft Stop	Horizontal
Measuring principle of linear potentiometer	Analog
Structural design	Drive shaft on ball bearings Rotary vane
Position sensing	For proximity sensor With integrated angle measurement system
Operating pressure for positioning/soft stop	4 bar ... 8 bar
Max. swivel frequency at 6 bar	2 Hz
Max. travel speed	2000 deg/s
Min. travel speed	50 deg/s
Typical positioning time, short-stroke, horizontal	0.15/0.25 s
Typical positioning time, long stroke, horizontal	0.35/0.60 s
Connection resistance	5 kOhm
Recommended contact current	<1 µA
Mode of operation	Double-acting
Max. operating voltage DC	42 V
Max. short-time slider current	10000 µA
Max. current consumption	4 mA
Nominal operating voltage DC	10 V
Connection resistance tolerance	20 %
Permissible voltage fluctuations	< 1 %
CE marking (see declaration of conformity)	As per EU EMC directive
Operating medium	Compressed air as per ISO 8573-1:2010 [6:4:4]
Information on operating and pilot media	Operation with oil lubrication not possible
Continuous shock resistance to DIN/IEC 68 Part 2-82	Tested as per severity level 2
Corrosion resistance class (CRC)	0 - No corrosion stress
Degree of protection	IP65 as per IEC 60529

Feature	Value
Vibration resistance to DIN/IEC 68 Part 2-6	Tested as per severity level 2
Ambient temperature	-10 °C ... 60 °C
Impact energy in the end positions	0.05 J
Max. axial force	50 N
Max. mass moment of inertia, horizontal	0.03 kgm <sup>2</sup>
Max. mass moment of inertia, vertical	0.03 kgm <sup>2</sup>
Max. radial force	120 N
Min. mass moment of inertia, horizontal	0.0015 kgm <sup>2</sup>
Min. mass moment of inertia, vertical	0.0015 kgm <sup>2</sup>
Theoretical torque at 6 bar	5 Nm
Product weight	1080 g
Angular resolution	≤0.1 deg
Output signal	Analog
Independent linearity	0.0025
Positioning repetition accuracy	+/- 0.3 deg
Soft Stop end position repetition accuracy	< 0.2 deg
Repetition accuracy, Soft Stop intermediate position	+/- 2 deg
Linear potentiometer electrical connection	4-pin
Cable length	30 m
Type of mounting	With internal thread
Pneumatic connection	M5
Material of measuring system housing	Wrought aluminum alloy Anodized
Note on materials	Free of copper and PTFE
Stop lever material	Wrought aluminum alloy Anodized
Drive shaft material	Steel Nickel-plated
(Fixed) stop material	Steel
Housing material	Wrought aluminum alloy Anodized
Measuring system coupling material	TPE-U(PU)
Feather key material	Steel
Vane material	PET-reinforced
Material of plug housing	PA-reinforced
Material of cylinder barrel	Wrought aluminum alloy