

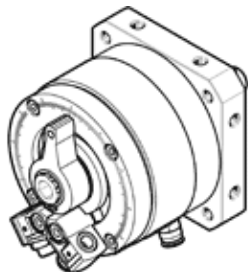
# Semi-rotary actuator

## DSMI-25-270-A-B

Part number: 561690

FESTO

with integrated displacement encoder. Optional endposition sensing via proximity sensors type SME/SMT-10F-...-KL.



### Data sheet

Feature	Value
Rotation angle adjustment range	0 ... 270 deg
Stroke shortening in the end-positions	5°
Smallest positioning stroke	5° for positioning 15° with Soft Stop
Piston diameter	25 mm
Swivel angle	0 ... 272 deg
Cushioning	P: Flexible cushioning rings/plates at both ends
Mounting position, positioning	Any
Mounting position, soft stop	Horizontal
Measuring method: displacement encoder	Analog
Design structure	Drive shaft with ball bearing Rotary vane
Position detection	For proximity sensor With integrated angular displacement encoder
Operating pressure MPa	0.2 ... 1 MPa
Working pressure, positioning / soft stop	4 ... 8 bar
Max. swivel frequency at 0.6 MPa (6 bar, 87 psi)	2 Hz
Max. travel speed	2,000 deg/s
Min. travel speed	50 deg/s
Typical short stroke positioning time, horizontal	0,15/0,25 s
Typical long stroke positioning time, horizontal	0,35/0,60 s
Connection resistance	5 kOhm
Recommended wiper current	< 1 µA
Mode of operation	double-acting
Max. operating voltage, DC	42 V
Max. intermittent wiper current	10 mA
Max. current consumption	4 mA
Nominal operating voltage DC	10 V
Connection resistance tolerance	20 %
Permissible voltage fluctuation	< 1 %
CE symbol (see declaration of conformity)	according to EU-EMV guideline in accordance with EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Operating medium	Compressed air in accordance with ISO8573-1:2010 [6:4:4]
Note on operating and pilot medium	Lubricated operation not possible
Continuous shock resistance per DIN/IEC 68, parts 2 - 82	Tested in accordance with severity level 2
Corrosion resistance classification CRC	0 - No corrosion stress
PWIS conformity	VDMA24364-B2-L
Protection class	IP65 to IEC 60529
Vibration resistance per DIN/IEC 68, parts 2 - 6	Tested in accordance with severity level 2
Ambient temperature	-10 ... 60 °C

<b>Feature</b>	<b>Value</b>
Impact energy in end positions	0.05 Nm
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 0.6 MPa (6 bar, 87 psi)	5 Nm
Product weight	1,080 g
Angle resolution	≤ 0.1 deg
Output signal	Analog
Independent linearity	0,0025
Repetition accuracy, positioning	+/- 0,3 deg
Repetition accuracy, soft stop end-position	< 0,2 deg
Repetition accuracy, soft stop intermediate position	+/- 2 deg
Electrical connection, displacement encoder	4-pin
Cable length	30 m
Mounting type	with internal (female) thread
Pneumatic connection	M5
Material of measuring system housing	Wrought Aluminum alloy Anodized
Material stop lever	Wrought Aluminum alloy Anodized
Material of drive shaft	Steel, nickel-plated
Material fixed stop	Steel
Material housing	Wrought Aluminum alloy Anodized
Material measuring system coupling	TPE-U(PU)
Material woodruff key	Steel
Material swivel vane	PET-reinforced
Material connector housing	PA-reinforced
Material cylinder barrel	Wrought Aluminum alloy