

Semi-rotary drive DSMI-40-270-A-B

Part number: 561691

FESTO



 General operating condition

Data sheet

Feature	Value
Rotation angle adjustment range	0 deg ... 270 deg
Stroke reduction at end positions	5 °
Smallest positioning stroke	5° during positioning 15° with Soft Stop
Piston diameter	40 mm
Swivel angle	0 deg ... 272 deg
Cushioning	Elastic cushioning rings/plates at both ends
Positioning installation position	optional
Soft Stop installation position	Horizontal
Functional principle of measuring system	Analogue
Design	Drive shaft, running in ball bearings Vane
Position detection	Via proximity switch Via integrated angular displacement encoder
Operating pressure	0.2 MPa ... 1 MPa
Operating pressure positioning/Soft Stop	4 bar ... 8 bar
Max. swivel frequency at 0.6 MPa (6 bar, 87 psi)	2 Hz
Max. travel speed	2000 deg/s
Min. travel speed	50 deg/s
Typical positioning time short stroke, horizontal	0.25/0.25 s
Typical positioning time long stroke, horizontal	0.30/0.55 s
Connection resistance	5 kOhm
Recommended wiper current	<1 µA
Mode of operation	Double-acting
Max. operating voltage DC	42 V
Max. wiper current, short-time	10000 µA
Max. current consumption	4 mA
Nominal operating voltage DC	10 V
Connection resistance tolerance	20 %
Permissible voltage fluctuations	<1%
CE mark (see declaration of conformity)	To EU EMC Directive 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 to ISO 8573-1:2010 [6:4:4]
Note on operating and pilot medium	Lubricated operation not possible
Continuous shock resistance to DIN/IEC 68 Part 2-82	Tested to severity level 2

Feature	Value
Corrosion resistance class CRC	0 - No corrosion stress
LABS (PWIS) conformity	VDMA24364-B2-L
Degree of protection	IP65 To IEC 60529
Vibration resistance to DIN/IEC 68 Part 2-6	Tested to severity level 2
Ambient temperature	-10 °C ... 60 °C
Impact energy in end positions	0.1 J
Max. axial force	120 N
Max. mass moment of inertia horizontal	0.12 kgm ²
Max. mass moment of inertia vertical	0.12 kgm ²
Max. radial force	350 N
Min. mass moment of inertia, horizontal	0.006 kgm ²
Min. mass moment of inertia, vertical	0.006 kgm ²
Theoretical torque at 0.6 MPa (6 bar, 87 psi)	20 Nm
Product weight	3950 g
Angle resolution	≤0.1 deg
Output signal	Analogue
Non-dependent 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 encoder	4-pin
Cable length	30 m
Type of mounting	Via female thread
Pneumatic connection	G1/8
Material housing, displacement encoder	Wrought aluminium alloy Anodised
Material stop lever	Wrought aluminium alloy Anodised
Material drive shaft	Nickel-plated steel
Material fixed stop	Steel
Material housing	Anodised
Material measuring system coupling	TPE-U(PU)
Material woodruff key	Steel
Material swivel vane	Reinforced PET
Material connector housing	PA-reinforced
Material cylinder barrel	Wrought aluminium alloy