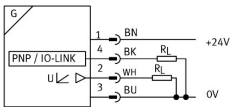
Position transmitter
SDAT-MHS-M160-1L-SV-E-0.3-M8

Part number: 8115398





General operating condition

Data sheet

Feature	Value
Design	for T-slot
Symbol	00997376
Certification	RCM compliance mark c UL us - Listed (OL)
CE marking (see declaration of conformity)	As per EU EMC directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC
Note on materials	RoHS-compliant Halogen-free
Application note	https://www.festo.com/Drive-Sensor-Overview
Measured variable	Position
Measuring principle	Magnetic Hall
Sensing range	0 µm ... 160000 µm
Ambient temperature	-25 °C ... 70 °C
Typical sampling interval	1 ms
Max. travel speed	3 m/s
Displacement resolution	0.05 mm
Repetition accuracy	0.1 mm
Switching output	PNP
Switching element function	N/C contact/N/O contact switchable
On time	‹2 ms
Switch-off time	‹2 ms
Max. switching frequency	1000 Hz
Max. output current	100 mA
Max. switching capacity DC	2.7 W
Voltage drop	2.5 V
Analog output	0 - 10 V
Sensitivity	0.056 V/mm
Typical linearity error	±0.25 mm
Min. load resistance of voltage output	20 kOhm
Short-circuit protection	yes
Overload protection	Available
Protocol	I-Port IO-Link®
IO-Link®, protocol version	Device V 1.1
IO-Link®, profile	Smart sensor profile

Feature	Value
IO-Link®, function classes	Binary data channel (BDC) Process data variable (PDV) Identification Diagnostics Teach channel
IO-Link®, communication mode	COM3 (230.4 kBd)
IO-Link®, SIO mode support	Yes
IO-Link®, port class	A
IO-Link®, process data width IN	2 Byte
IO-Link®, process data content IN	12 bit PDV (position measurement) 4 bit BDC (position monitoring)
IO-Link®, minimum cycle time	1 ms
DC operating voltage range	15 V ... 30 V
Residual ripple	10 %
Reverse polarity protection	for all electrical connections
Electrical connection 1, connection type	Cable with plug
Electrical connection 1, connection technology	M8x1 A-coded as per EN 61076-2-104
Electrical connection 1, number of pins/wires	4
Electrical connection 1, type of mounting	Screw-type lock
Electrical connection for input 1, connection pattern	00991171
Connection outlet orientation	Longitudinal
Material of pin contacts	Copper alloy Gold-plated
Connector cable test conditions	Flexural strength: as per Festo standard Torsion resistance: › 300,000 cycles, ±270°/0.1 m Energy chain › 5 million cycles, bending radius 28 mm
Cable length	0.3 m
Cable characteristic	Suitable for energy chains/robot applications
Color cable sheath	Gray
Material of cable sheath	TPE-U(PUR)
Type of mounting	Can be inserted in slot from above
Mounting position	Any
Product weight	35 g
Housing material	Polyester High-alloy stainless steel
Material of union nut	Brass, nickel-plated
Film material	Polyester
Ready status indication	LED green
Switching status indication	LED yellow
Status indicator	LED red
Setting options	IO-Link® Pushbutton
Ambient temperature with flexible cable installation	-20 °C ... 70 °C
Degree of protection	IP65 IP68
LABS (PWIS) conformity	VDMA24364-B2-L
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)
Cleanroom class	Class 4 according to ISO 14644-1