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DATA SHEET

MPS-200CLTP0

MPS-C
Cylinder sensors

SICK Sensor Intelligence

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CYLINDER SENSORS

MPS-200CLTP0

ORDERING INFORMATION

Type	part no.
MPS-200CLTP0	1079364

Further device versions and accessories at www.sick.com/MPS-C

DETAILED TECHNICAL DATA

FEATURES

Cylinder type	C-slot
Cylinder types with adapter	Round body cylinder Profile cylinders and tie-rod cylinders SMC rail CDQ2 SMC rail ECDQ2
Measuring range	200 mm [1]
Housing length	215 mm
Switching output	Push-pull: PNP/NPN
Output function	Analog, IO-Link
Electrical wiring	DC 4-wire
Analog output (voltage)	0 V ... 10 V
Analog output (current)	4 mA ... 20 mA
Enclosure rating	IP67 [2]
Adjustment	
Teach-in control panel	Teaching in analog outputs Selecting the current/voltage output Inverting the analog output Teaching in digital switching outputs
IO-Link	Teaching in 4 switching points Pin 2 configuration (0 V–10 V, 4 mA–20 mA) Measuring range (mm) teach-in (analog output) Disabling teach-in pushbutton Teach-in modes per output via IO-Link (cylinder switch mode, two point mode, window mode, and single point mode)

[1] ± 1 mm.

[2] According to EN 60529.

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MECHANICS/ELECTRONICS

Supply voltage	12 V DC ... 30 V DC
Power consumption	42 mA, without load
Voltage drop	≤ 2 V
Continuous current I_a	≤ 100 mA [1]
Max. load resistance	≤ 500 Ω Power Output, at 24 V
Min. load resistance	≥ 2 kΩ [2]
Protection class	III
Time delay before availability	0.15 s
Required magnetic field sensitivity, typ.	3 mT ... 12 mT
Resolution, typ.	≥ 50 µm
Linearity error, typ.	0.3 mm [3]
Repeat accuracy, typ.	0.1 mm [4]
Sampling rate, typ.	1 ms
Reverse polarity protection	Yes
Short-circuit protection	Yes
Status indicator LED	Yes
Digital switching output	Yes
Teach-in	Yes
Ambient operating temperature	–20 °C ... +70 °C
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
EMC	According to EN 60947-5-7 [5]
Connection type	Cable with M8 male connector, 4-pin, 0.3 m
Connection type Detail	
Deep-freeze property	Do not bend below 0 °C
Conductor cross section	0.08 mm²
Cable diameter	Ø 2.6 mm
Bending radius	With fixed installation > 5 x cable diameter For flexible use > 10 x cable diameter
Cable outlet	Axial
Material	
Housing	Plastic
Cable	PUR
UL File No.	NRKH.E181493 & NRKH7.E181493

[1] ≤ 100 mA (PUSH); ≥ –100 mA (PULL).

[2] Voltage output.

[3] At 25 ° C, linearity error (maximum deviation) depending on response curve and minimal deviation function.

[4] At 25 ° C, repeatability magnet movement in one direction.

[5] The analog measured value can deviate under transient conditions.

SAFETY-RELATED PARAMETERS

$MTTF_D$	72 years
DC_{avg}	0 %
T_M (mission time)	20 years

COMMUNICATION INTERFACE

Communication interface	IO-Link V1.1
Communication Interface detail	COM3
Cycle time	1 ms
Process data length	16 Bit

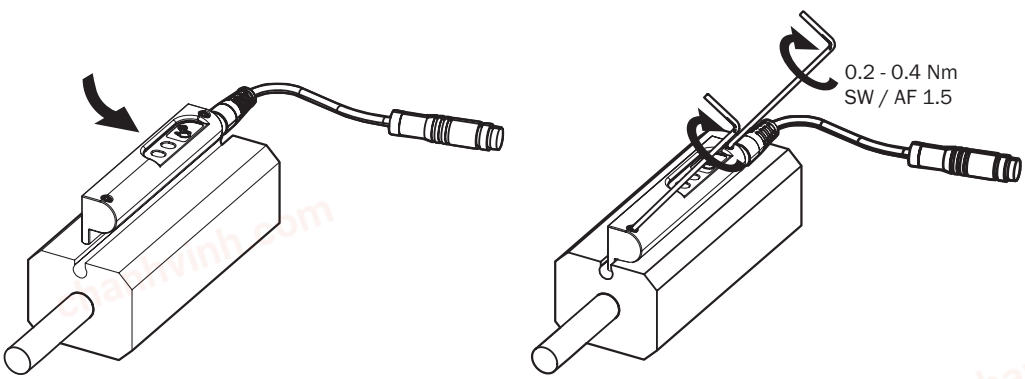
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Process data structure	Bit 0 = switching signal Q_{L1} Bit 1 = switching signal Q_{L2} Bit 2 = switching signal Q_{L3} Bit 3 = switching signal Q_{L4} Bit 4 ... 15 = position (in 50 µm)

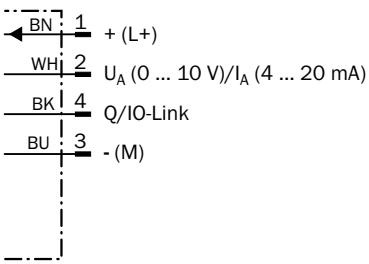
CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓
IO-Link certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

INSTALLATION NOTE

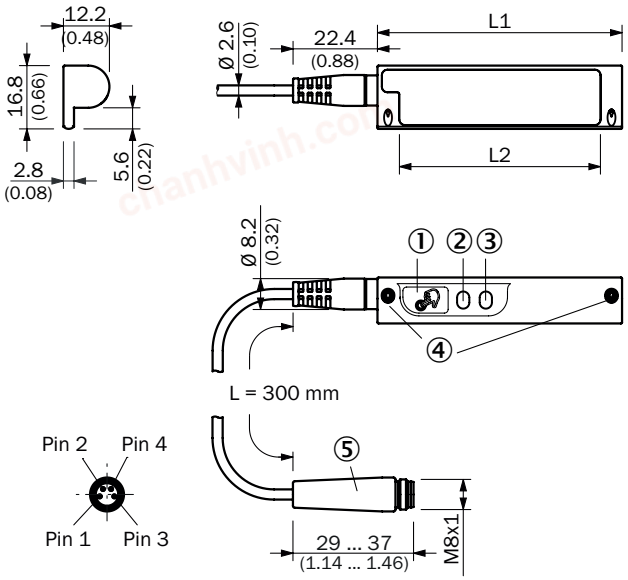


CONNECTION DIAGRAM CD-357



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DIMENSIONAL DRAWING CABLE WITH CONNECTOR M8



	Total length (L1) mm	Measuring range (L2) mm
MPS-xxx	40.6	25
MPS-xxx	64.9	50
MPS-xxx	114.9	100
MPS-xxx	214.7	200

Dimensions in mm (inch)
① Teach-in button
② status LEDs
③ operating LEDs
④ Fixing screw SW 1.5
⑤ Connection

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1079364

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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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