Data sheet



MPS-200CLTU0

MPS-C

CYLINDER SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
MPS-200CLTU0	1079365

Other models and accessories ➜ 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 outputsSelecting the current/voltage outputInverting the analog output-Teaching in digital switching outputs
IO-Link	Teaching in 4 switching pointsPin 2 configuration (0 V–10 V, 4 mA–20 mA)Measuring range (mm) teach-in (analog output)Disabling teach-in pushbuttonTeach-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.

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, 4-wire, stripped, 2 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
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)

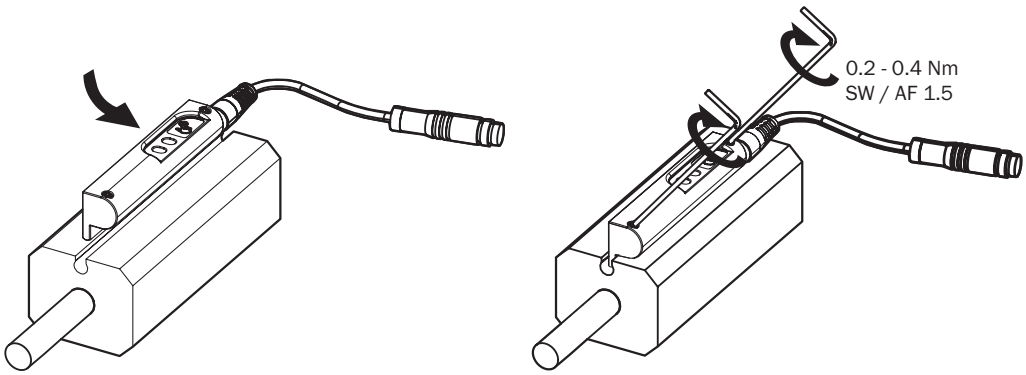
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓
IO-Link	✓

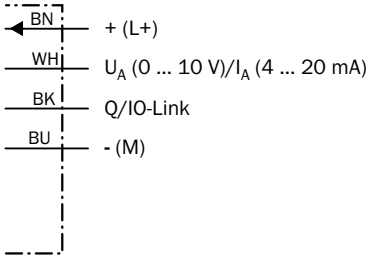
Classifications

ECLASS 5.0	27270104
ECLASS 5.1.4	27270104
ECLASS 6.0	27270104
ECLASS 6.2	27270104
ECLASS 7.0	27270104
ECLASS 8.0	27270104
ECLASS 8.1	27270104
ECLASS 9.0	27270104
ECLASS 10.0	27270104
ECLASS 11.0	27270104
ECLASS 12.0	27274301
ETIM 5.0	EC002544
ETIM 6.0	EC002544
ETIM 7.0	EC002544
ETIM 8.0	EC002544
UNSPSC 16.0901	39122230

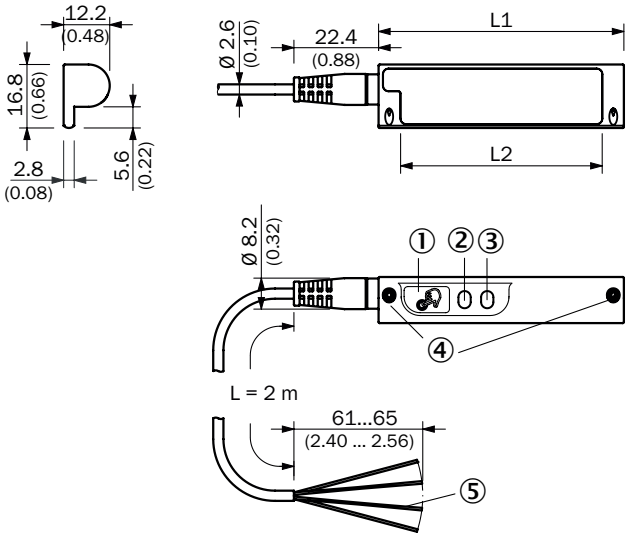
Installation note



Connection diagram Cd-358



Dimensional drawing Cable

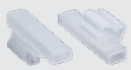


	Total length (L1) mm	Measuring range (L2) mm
MPS-xxx	40.6	25
MPS-xxx	64.9	50
MPS-xxx	114.9	100
MPS-xxx	214.7	200

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

Recommended accessories

Other models and accessories ➜ www.sick.com/MPS-C

	Brief description	Type	part no.
Mounting systems			
	• **Description:** Mounting bracket for integrated profile cylinder/tie-rod cylinder • **Material:** Zinc diecast • **Details:** Zinc diecast • **Items supplied:** Mounting hardware included	BEF-KHZ-PC1	2076170
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 1 mm ... 130 mm, ambient temperature min –30 °C max 80 °C • **Material:** Stainless steel, Aluminum • **Details:** Stainless steel, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC1-130	2077686
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 1 mm ... 25 mm, ambient temperature min –30 °C max 80 °C • **Material:** Stainless steel, Aluminum • **Details:** Stainless steel, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC1-25	2077685
	• **Description:** Label Holder, 2.5 mm to 3.5 mm, 10 pcs. • **Material:** Plastic • **Details:** TPU • **Packing unit:** 10 pieces	LABEL HOLDER	2086019

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

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