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DATA SHEET

PS30M-P1211

PS30
Array sensors

SICK Sensor Intelligence



Illustration may differ

ARRAY SENSORS

PS30M-P1211

ORDERING INFORMATION

Type	part no.
PS30M-P1211	1074721

Further device versions and accessories at www.sick.com/PS30

DETAILED TECHNICAL DATA

FEATURES

Dimensions (W x H x D)	46 mm x 77 mm x 46 mm
Sensing distance	≤ 20 mm
Sensing distance tolerance	± 2.5 mm
Housing design	Rectangular
Working range	0 mm ... 34 mm
Light source	LED, White [1]
Wave length	400 nm ... 700 nm
Light spot size	65 mm x 3 mm
Repeatability	0.1 mm [2] 0.3 mm [3]
Max. movement speed	10 m/s
Adjustment	Start stop teach, start length teach
Image length (min.)	≥ 15 mm
Picture length (max.)	≤ 1,000 mm
Picture height (min.)	≥ 10 mm
Tolerance lateral movement	± 5 mm

[1] Average service life: 100,000 h at T_U = +25 °C.

[2] At 3 m/s.

[3] At 10 m/s.

MECHANICS/ELECTRONICS

Supply voltage	12 V DC ... 30 V DC [1]
Ripple	≤ 5 V_{pp} [2]
Power consumption	< 6 W [3]
Switching output	PNP
Switching output (voltage)	PNP: HIGH = V_S – ≤ 2 V / LOW < 0,5 V
Status output	PNP: HIGH = V_S – ≤ 2 V / LOW < 0,5 V [4]
Output current $I_{max.}$	< 100 mA [5]
Input, teach-in (ET)	PNP: Teach: U = 12 V ... < U_V, Run: U < 2 V
Input, blanking input (AT)	PNP: blanked: U = 12 V ... < Uv, free-running U < 2 V [6]
Initialization time	< 10 s
Retention time (ET)	≥ 6 s, non-volatile memory
Connection type	Connector M12, 12-pin/Connector M12, 4-pin, rotatable up to 90° (Ethernet)
Protection class	III
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP65
Weight	+ 325 g
Housing material	Metal, metal
Encoder resolution	100 µm ... 600 µm (in 1 µm)
Encoder input	Differentiel: 4,5 V - 5,5 V / TTL / RS-422, single ended: 12 V - 30 V / HTL / push-pull

[1] Limit values when operated in short-circuit protected network: max. 8 A.

[2] May not exceed or fall below U_V tolerances.

[3] Without load.

[4] Detailed description of the status output in operating manual.

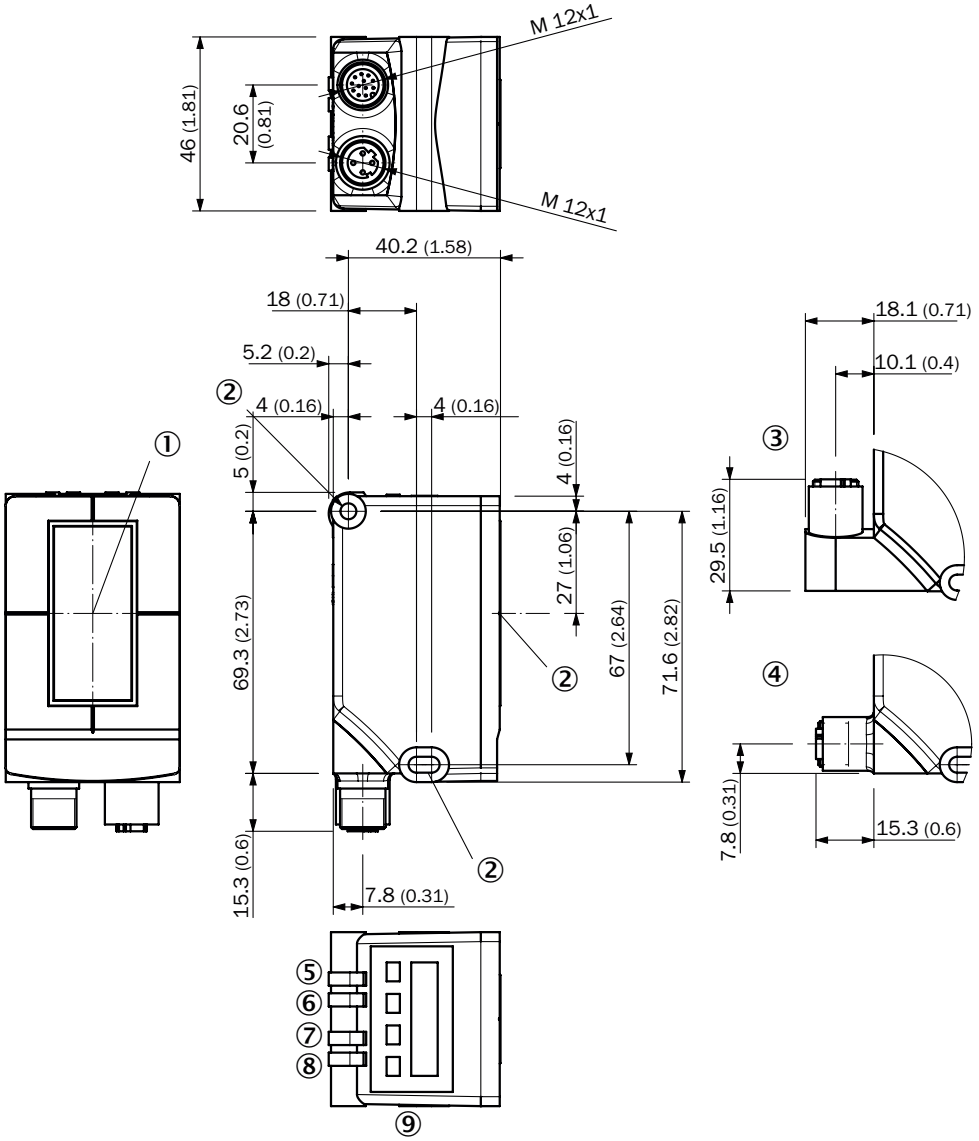
[5] Sum I_{out} = Q + Q status.

[6] Fade-out of identical areas.

AMBIENT DATA

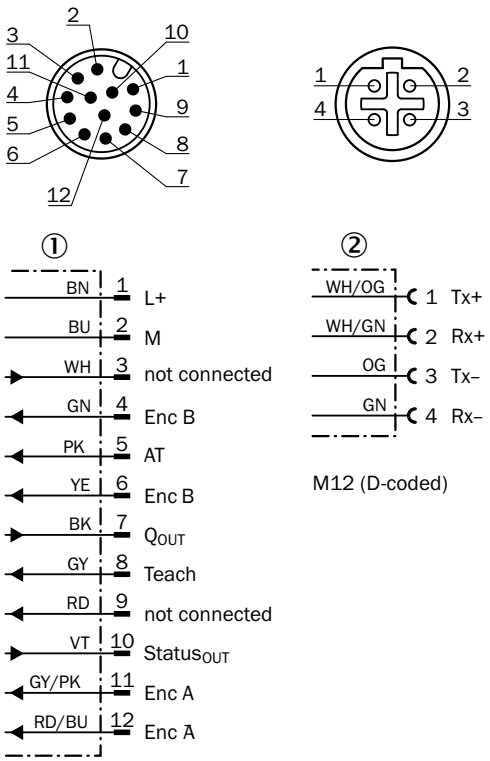
Ambient operating temperature	–10 °C ... +55 °C
Ambient temperature, storage	–20 °C ... +75 °C
Ambient light immunity	30,000 lx
Shock load	According to IEC 60068
UL File No.	NRKH.E181493 & NRKH7.E181493

DIMENSIONAL DRAWING



Dimensions in mm (inch)
① Center of optical axis
② Mounting hole, Ø 4.2 mm
③ Connector M12, 12-pin/Connector M12, 4-pin, not rotatable (Ethernet)
④ Connector M12, 12-pin/Connector M12, 4-pin, rotatable up to 90° (Ethernet)
⑤ Function signal indicator (green) "on"
⑥ Function signal indicator (yellow) "Q"
⑦ Function signal indicator (green) "Link"
⑧ Function signal indicator (yellow) "Act"
⑨ Display and function buttons

CONNECTION DIAGRAM CD-320



M12 (A-coded)

M12 (D-coded)

① M12 connection diagram, 12-pin
② M12 connection diagram, 4-pin

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/1074721

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SICK AT A GLANCE

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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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