



PS30M-P1211

PS30

PATTERN SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
PS30M-P1211	1074721

Other models and accessories → 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_J = +25 °C.

²⁾ At 3 m/s.

³⁾ At 10 m/s.

Mechanics/electronics

Supply voltage	12 V DC ... 30 V DC ¹⁾
Ripple	$\leq 5 V_{pp}$ ²⁾
Power consumption	$< 6 W$ ³⁾
Switching output	PNP
Switching output (voltage)	PNP: HIGH = $V_S - \leq 2 V$ / LOW $< 0,5 V$
Status output	PNP: HIGH = $V_S - \leq 2 V$ / LOW $< 0,5 V$ ⁴⁾
Output current I_{max}	$< 100 mA$ ⁵⁾
Input, teach-in (ET)	PNP: Teach: $U = 12 V \dots < U_V$, Run: $U < 2 V$
Input, blanking input (AT)	PNP: blanked: $U = 12 V \dots < U_V$, free-running $U < 2 V$ ⁶⁾
Initialization time	$< 10 s$
Retention time (ET)	$\geq 6 s$, 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	Differential: 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

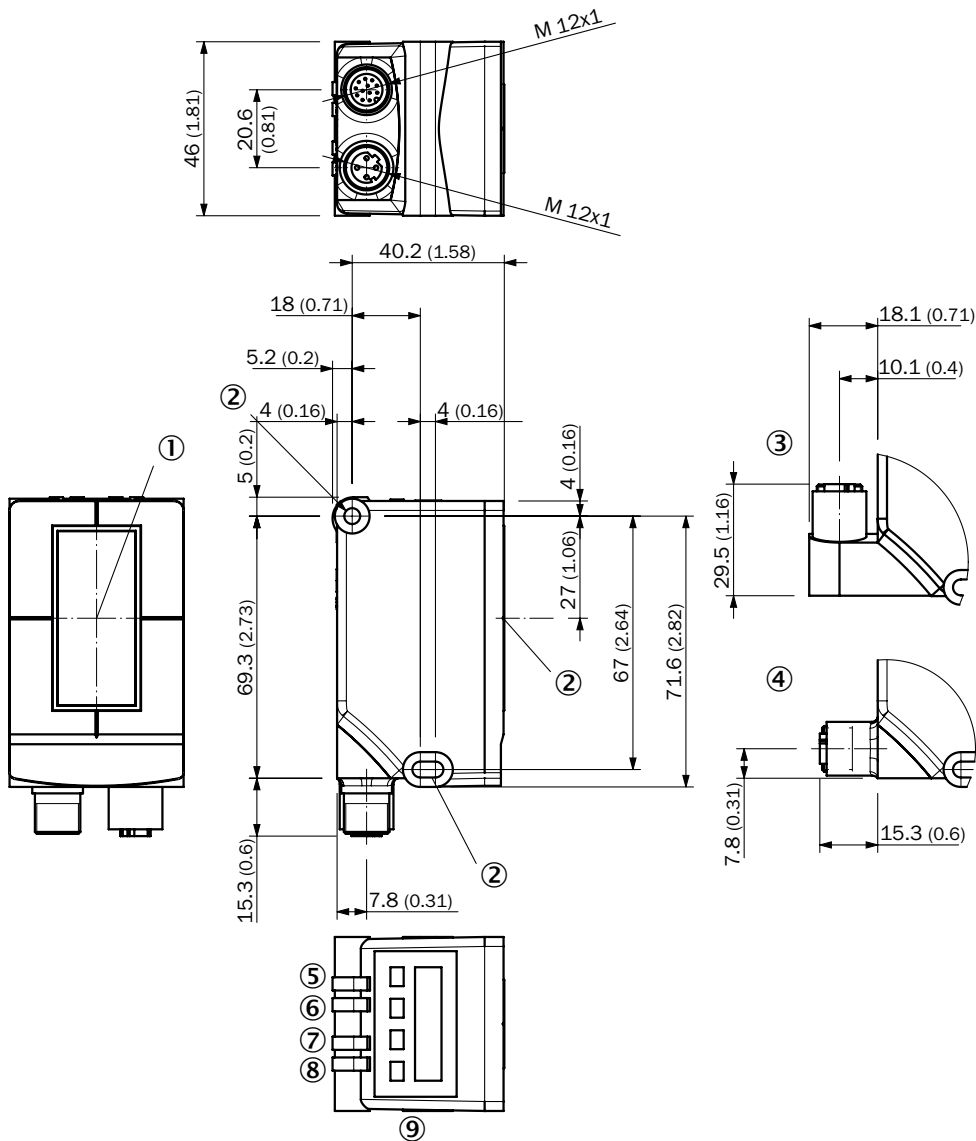
Ambient operating temperature	$-10^\circ C \dots +55^\circ C$
Ambient temperature, storage	$-20^\circ C \dots +75^\circ C$
Ambient light immunity	30,000 lx
Shock load	According to IEC 60068
UL File No.	NRKH.E181493 & NRKH7.E181493

Classifications

ECLASS 5.0	27270906
ECLASS 5.1.4	27270906
ECLASS 6.0	27270906
ECLASS 6.2	27270906
ECLASS 7.0	27270906
ECLASS 8.0	27270906
ECLASS 8.1	27270906

ECLASS 9.0	27270906
ECLASS 10.0	27270906
ECLASS 11.0	27270906
ECLASS 12.0	27270906
ETIM 5.0	EC001820
ETIM 6.0	EC001820
ETIM 7.0	EC001820
ETIM 8.0	EC001820
UNSPSC 16.0901	39121528

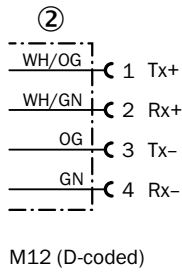
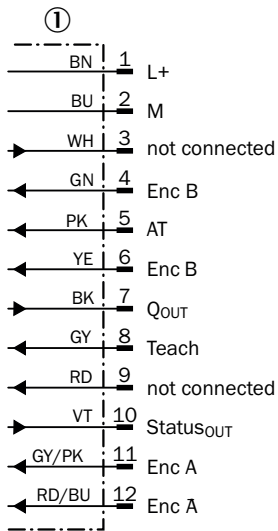
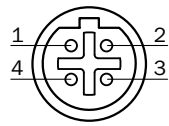
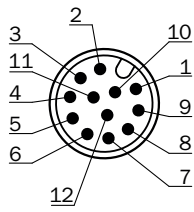
Dimensional drawing (Dimensions in mm (inch))



- 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)

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

Recommended accessories

Other models and accessories → www.sick.com/PS30

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate NO4 for universal clamp, steel, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N04	2051610
	Mounting bar, straight, 200 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12G-A	4056054
	Mounting bar, L-shaped, 250 x 250 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12L-B	4056053

	Brief description	Type	Part no.
Plug connectors and cables			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 12-pin, angled • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 12-wire, PVC • Description: Sensor/actuator cable, shielded • Connection systems: Flying leads 	DOL-1212-W05MAS02	6044109
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 12-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 12-wire, twisted pair, PVC • Description: Sensor/actuator cable, shielded • Connection systems: Flying leads 	DOL1212-G05MAS02	6042754
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 12-pin, straight • Connection type head B: Male connector, M12, 12-pin, straight • Signal type: Sensor/actuator cable • Cable: 5 m, 12-wire, twisted pair, PVC • Description: Sensor/actuator cable, shielded 	DSL-1212-G05MAS02	6045234
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, straight, D-coded • Connection type head B: Male connector, RJ45, 4-pin, straight • Signal type: Ethernet, PROFINET • Cable: 5 m, 4-wire, PUR, halogen-free • Description: Ethernet, PROFINET, shielded • Application: Drag chain operation, Zones with oils and lubricants 	YM2D24-050PN1MRJA4	2106184
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, angled, D-coded • Connection type head B: Male connector, RJ45, 8-pin, straight • Signal type: Ethernet • Cable: 5 m, 4-wire, AWG26, PUR, halogen-free • Description: Ethernet, twisted pair, shielded 	YN2D24-050EB1MRJA4	6039488

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com