



# DS30-N1241

Dx30

MID RANGE DISTANCE SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
DS30-N1241	1042181

Other models and accessories → [www.sick.com/Dx30](http://www.sick.com/Dx30)



### Detailed technical data

#### Performance

<b>Measuring range</b>	200 mm ... 2,000 mm, 6 % remission 200 mm ... 2,000 mm, 18 % remission 200 mm ... 2,000 mm, 90 % remission
<b>Resolution</b>	10 mm, Teach resolution <sup>1)</sup>
<b>Response time</b>	10 ms
<b>Switching frequency</b>	50 Hz
<b>Light source</b>	Laser, infrared <sup>2)</sup>
<b>Laser class</b>	1 (EN 60825-1)
<b>Typ. light spot size (distance)</b>	20 mm x 20 mm (at 2 m)
<b>Laser service life (MTTF at 25 °C)</b>	100,000 h

<sup>1)</sup> 6 % ... 90 % remission.

<sup>2)</sup> Wave length: 850 nm.

#### Interfaces

<b>Switching output</b>	2 x NPN (100 mA) <sup>1) 2) 3)</sup>
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<sup>1)</sup> Output Q short-circuit protected.

<sup>2)</sup> NPN: HIGH =  $\leq 2 \text{ V}$  / LOW =  $U_V$ .

<sup>3)</sup> Complementary switching outputs (Q,  $\bar{Q}$ )

#### Mechanics/electronics

<b>Supply voltage <math>V_s</math></b>	DC 10 V ... 30 V <sup>1)</sup>
<b>Ripple</b>	$\leq 5 \text{ V}_{pp}$ <sup>2)</sup>
<b>Warm-up time</b>	$\leq 5 \text{ min}$
<b>Connection type</b>	Male connector, M12, 4-pin
<b>Indication</b>	2 x LED
<b>Weight</b>	120 g

<sup>1)</sup> Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

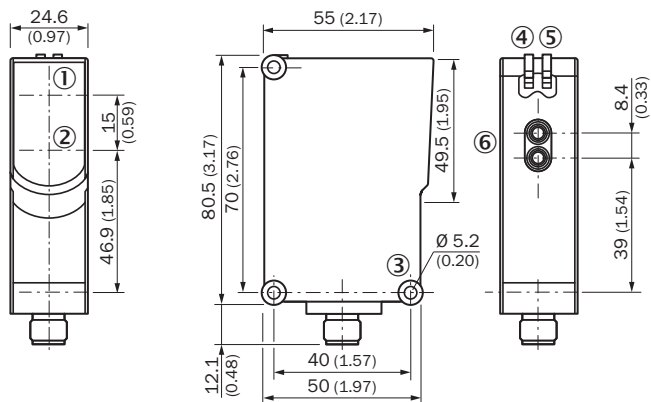
<sup>2)</sup> May not fall short of or exceed  $V_s$  tolerances.

## Ambient data

<b>Enclosure rating</b>	IP 65
<b>Protection class</b>	II <sup>1)</sup>
<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2:2005-08, EN 61000-6-3:2001-10 + A11:2004-07 EN 60947-5-2:1998-10 + A1:1999-08 + A2:2004-02
<b>Ambient temperature</b>	Operation: -40 °C ... +55 °C Storage: -40 °C ... +75 °C

<sup>1)</sup> Reference voltage DC 50 V.

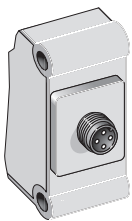
## Dimensional drawing (Dimensions in mm (inch))



- ① Optical axis, sender
- ② Optical axis, receiver
- ③ Mounting hole  $\varnothing$  5.2 mm
- ④ LED indicator 1
- ⑤ LED indicator 2
- ⑥ Sensing distance adjustment: teach-in button

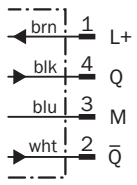
## Connection type

DS30-xx241



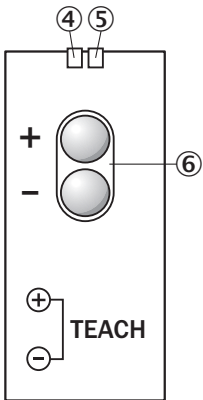
Connection diagram

DS30-xx241



Adjustment possible




DS30-xx241



- ④ LED indicator 1
- ⑤ LED indicator 2
- ⑥ Sensing distance adjustment: teach-in button

Recommended accessories

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	Brief description	Type	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-WN-W23	2019085
	Mounting bracket with hinged arm, steel, zinc coated, mounting hardware included	BEF-WN-W27	2009122
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-G02M	6008899
	Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1205-G05M	6009868

	<b>Brief description</b>	<b>Type</b>	<b>Part no.</b>
	Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 10 m	DOL-1205-G10M	6010544
	Head A: female connector, M12, 5-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-W02M	6008900
	Head A: female connector, M12, 5-pin, angled Head B: cable Cable: PVC, unshielded, 5 m	DOL-1205-W05M	6009869
	Head A: female connector, M12, 5-pin, angled Head B: cable Cable: PVC, unshielded, 10 m	DOL-1205-W10M	6010542

## 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](http://www.sick.com)