

# OLS10-BP112311

OLS

CONTRAST SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ

### Ordering information

Type	part no.
OLS10-BP112311	1092169

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

### Detailed technical data

#### Features

<b>Housing design</b>	Middle
<b>Dimensions (W x H x D)</b>	46 mm x 77 mm x 46 mm
<b>Module width (min.)</b>	≥ 1.5 mm
<b>Line radius (min.)</b>	≥ 0.5 m
<b>Light source</b>	LED, blue <sup>1)</sup>
<b>Light spot size</b>	180 mm x 11 mm <sup>2)</sup>
<b>Receiving filters</b>	None
<b>Wave length</b>	450 nm
<b>Bar code types</b>	Interleaved 2 of 5
<b>Sensing distance</b>	≤ 100 mm
<b>Sensing distance tolerance</b>	± 10 mm

<sup>1)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

<sup>2)</sup> Field of view line +90mm, field of view code +50mm.

#### Interfaces

<b>Ethernet</b>		✓, TCP/IP
	Cycle time	1 ms
	Process data length	21 Byte Process Data In
<b>CANopen</b>		✓
<b>Digital output</b>		Q1, Q2
	Number	2

## Electronics

<b>Supply voltage</b>	12 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	$\leq 5 V_{pp}$ <sup>2)</sup>
<b>Power consumption</b>	$< 3 W$ <sup>3)</sup>
<b>Initialization time</b>	$< 10 s$
<b>Sampling rate</b>	10 ms <sup>4)</sup> 20 ms <sup>5)</sup>
<b>Accuracy optical center</b>	$\pm 1 mm$
<b>Switching output</b>	PNP
<b>Switching output (voltage)</b>	PNP: HIGH = $V_S - \leq 2 V$ / LOW $< 0,5 V$
<b>Status output</b>	PNP: HIGH = $V_S - \leq 2 V$ / LOW $< 0,5 V$ <sup>6)</sup>
<b>Output current <math>I_{max}</math></b>	$< 100 mA$ <sup>7)</sup>
<b>Time delay</b>	None
<b>Protection class</b>	III
<b>Circuit protection</b>	$U_V$ connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
<b>LED risk group</b>	1 (IEC 62471)
<b>Connection type</b>	Connector M12, 12-pin

<sup>1)</sup> Limit values when operated in short-circuit protected network: max. 8 A.

<sup>2)</sup> May not fall below or exceed  $U_V$  tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> CANopen.

<sup>5)</sup> Ethernet.

<sup>6)</sup> Detailed description of the status output in operating manual.

<sup>7)</sup> Sum  $I_{out} = Q1 + Q2$ .

## Mechanics

<b>Housing material</b>	Metal
<b>Weight</b>	325 g

## Ambient data

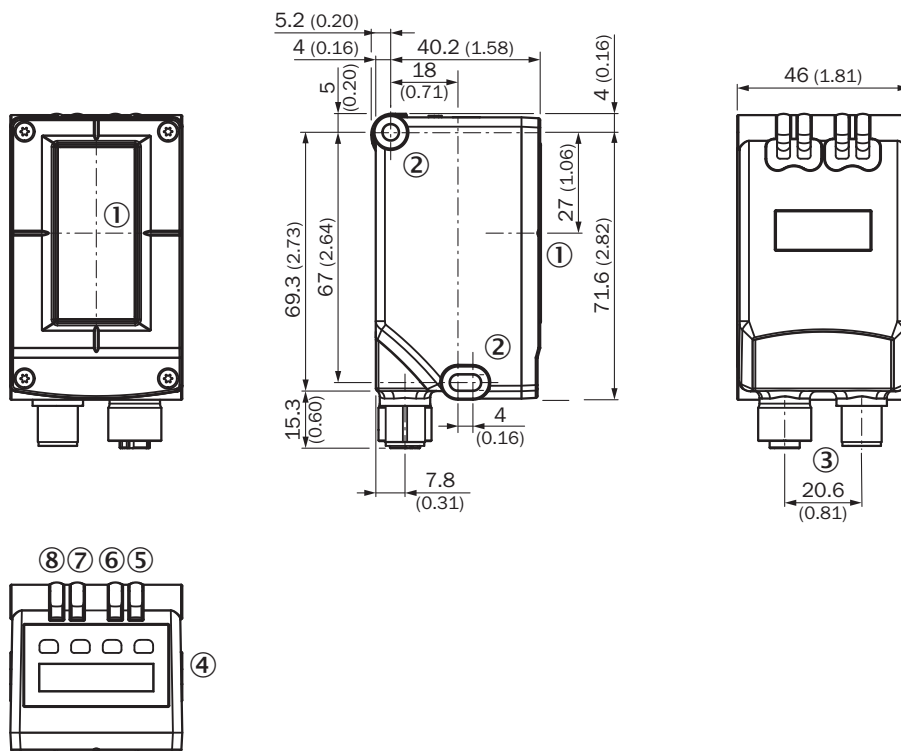
<b>Ambient operating temperature</b>	$-10\text{ }^{\circ}\text{C} \dots +55\text{ }^{\circ}\text{C}$
<b>Ambient temperature, storage</b>	$-20\text{ }^{\circ}\text{C} \dots +75\text{ }^{\circ}\text{C}$
<b>Ambient light immunity</b>	50,000 lx
<b>Shock load</b>	According to IEC 60068
<b>Enclosure rating</b>	IP64
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

## Classifications

<b>ECLASS 5.0</b>	27270906
<b>ECLASS 5.1.4</b>	27270906
<b>ECLASS 6.0</b>	27270906

<b>ECLASS 6.2</b>	27270906
<b>ECLASS 7.0</b>	27270906
<b>ECLASS 8.0</b>	27270906
<b>ECLASS 8.1</b>	27270906
<b>ECLASS 9.0</b>	27270906
<b>ECLASS 10.0</b>	27270906
<b>ECLASS 11.0</b>	27270906
<b>ECLASS 12.0</b>	27270906
<b>ETIM 5.0</b>	EC001820
<b>ETIM 6.0</b>	EC001820
<b>ETIM 7.0</b>	EC001820
<b>ETIM 8.0</b>	EC001820
<b>UNSPSC 16.0901</b>	39121528

### Dimensional drawing

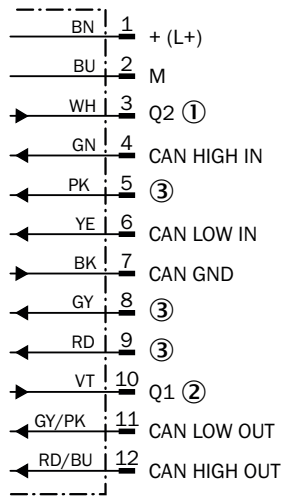
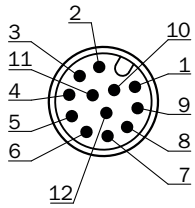


Dimensions in mm (inch)

- ① Center of optical axis
- ② Mounting hole,  $\varnothing$  4.2 mm
- ③ Connector M12, 12-pin/Connector M12, 4-pin, rotatable up to 90° (Ethernet)
- ④ Display and function buttons
- ⑤ Function signal indicator (green) "on"
- ⑥ Function signal indicator (yellow) "Q"
- ⑦ Function signal indicator (green) "Link"
- ⑧ Function signal indicator (yellow) "Act"

Connection diagram Cd-395

M12 (A-coded)





- ① valid BarCode read
- ② line detected
- ③ reserved, do not connect

### Recommended accessories

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

	Brief description	Type	part no.
<b>Codes</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> 1D bar codes in 2/5 interleaved format, set of 108 bar codes, 9 A4 sheets of 12 bar codes each, luminescent PVC base material with protective film, codes 0001 ... 0108, neon orange</li> </ul>	BARCODE 7510-038-0001-0108	5338408
	<ul style="list-style-type: none"> <li><b>Description:</b> Luminescent duct tape for easy application to all types of flooring, width 2.5 cm, length 25 m, neon orange</li> </ul>	ADHESIVE TAPE, FABRIC	5337868
	<ul style="list-style-type: none"> <li><b>Description:</b> Luminescent rugged PVC adhesive tape for easy application to all types of flooring, width 2 cm, length 25 m, neon orange</li> </ul>	TAPE 7510-038-20-25	5338378
	<ul style="list-style-type: none"> <li><b>Description:</b> Scope of delivery: 1 x 90° arc: luminescent rugged PVC adhesive tape, prepared as 90° arc with a radius of 500 mm, neon orange</li> </ul>	TAPE 7510-038-500	5338387
	<ul style="list-style-type: none"> <li><b>Description:</b> Scope of delivery: 1 x 90° arc, luminescent rugged PVC adhesive tape, prepared as 90° arc with a radius of 1,000 mm, neon orange</li> </ul>	TAPE 7510-038-1000	5338388
	<ul style="list-style-type: none"> <li><b>Description:</b> Protective film for adhesive tape, slip resistance class R10, protection against abrasion and moisture, width 3,5 cm, length 50 m</li> </ul>	TAPE 250AS-35-50	5338386
	<ul style="list-style-type: none"> <li><b>Description:</b> Scope of delivery: 1 x 90° arc, protective film for adhesive tape, slip resistance class R10, protection against abrasion and moisture, prepared as 90° arc with a radius of 500 mm</li> </ul>	TAPE 250AS-500-35	5338389
	<ul style="list-style-type: none"> <li><b>Description:</b> Scope of delivery: 1 x 90° arc, protective film for adhesive tape, slip resistance class R10, protection against abrasion and moisture, prepared as 90° arc with a radius of 1,000 mm</li> </ul>	TAPE 250AS-100-35	5338390
	<ul style="list-style-type: none"> <li><b>Description:</b> 1D barcodes in 2/5 interleaved format, set of 108 barcodes, 9 A4 sheets of 12 barcodes each, luminescent PVC base material with protective film, codes 0109 ... 0218, neon orange. Supplement (subsequent codes) for <a href="https://www.sick.com/5338408">https://www.sick.com/5338408</a> target="_blank"&gt;BARCODE 7510-038-0001-0108&lt;/a&gt;.</li> </ul>	BARCODE 7510-038-0109-0218	5342395
<b>Mounting systems</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> Plate N04 for universal clamp, steel</li> <li><b>Material:</b> Steel, zinc diecast</li> <li><b>Details:</b> Zinc plated steel (sheet), Zinc die cast (clamping bracket)</li> <li><b>Items supplied:</b> Universal clamp (5322626), mounting hardware</li> <li><b>Usable for:</b> Dx50, UC12, W12G, W14-2, W18-2, W23, W280, W11-2, W12-3, W12-2 Laser, W12 Teflon, W16, W18-3, W23-2, W24-2, W24-2 Ex, W26, W27-2 Laser, W27-2, W27-3, W34, W260, W280-2, PowerProx, Reflex Array, W11G-2, W18-3 Ex, W27-3 Ex</li> </ul>	BEF-KHS-N04	2051610

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M12, 4-pin, straight, D-coded</li> <li>• <b>Connection type head B:</b> Male connector, RJ45, 4-pin, straight</li> <li>• <b>Signal type:</b> Ethernet, PROFINET</li> <li>• <b>Cable:</b> 5 m, 4-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Ethernet, shielded, PROFINET</li> <li>• <b>Application:</b> Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-050P-N1MRJA4	2106184
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Sensor/actuator cable, shielded</li> <li>• <b>Connection type head A:</b> Female connector, M12, 12-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 12-wire, PVC</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	YF2A2B-050VH2XLEAX	2130954

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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.”

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