

# RS10-M111

RS10

CONTRAST SENSORS

**SICK**  
Sensor Intelligence.

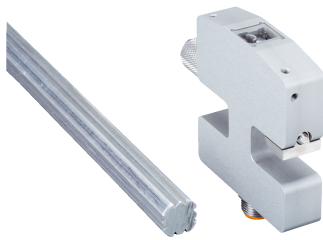


Illustration may differ



### Ordering information

Type	part no.
RS10-M111	1060116

Other models and accessories → [www.sick.com/RS10](http://www.sick.com/RS10)

### Detailed technical data

#### Features

<b>Dimensions (W x H x D)</b>	15 mm x 62 mm x 60 mm
<b>Sensing distance</b>	13 mm
<b>Sensing distance tolerance</b>	± 1 mm
<b>Housing design</b>	Large
<b>Light source</b>	LED, white <sup>1)</sup>
<b>Wave length</b>	450 nm ... 650 nm
<b>Light spot size</b>	0.8 mm x 3 mm

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

#### Electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	≤ 5 V <sub>pp</sub> <sup>2)</sup>
<b>Current consumption</b>	< 100 mA <sup>3)</sup>
<b>Response time</b>	20 μs <sup>4)</sup>
<b>Jitter</b>	≤ 10 μs
<b>Switching output</b>	PNP, NPN
<b>Output current I<sub>max.</sub></b>	< 100 mA
<b>Input, teach-in (ET)</b>	Run: U < 2 V Teach: U = 10 V ... < U <sub>V</sub>
<b>Time delay</b>	None
<b>Protection class</b>	II <sup>5)</sup>
<b>Circuit protection</b>	U <sub>V</sub> connections, reverse polarity protected Interference pulse suppression Outputs overcurrent and short-circuit protected

<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<sub>V</sub> tolerances.

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

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> Reference voltage DC 32 V.

## Mechanics

<b>Housing material</b>	Aluminum (anodised)
<b>Connection type</b>	Male connector M12, 8-pin
<b>Weight</b>	400 g

## Ambient data

<b>Ambient operating temperature</b>	-10 °C ... +60 °C
<b>Ambient temperature, storage</b>	-25 °C ... +75 °C
<b>Shock load</b>	According to IEC 60068
<b>Enclosure rating</b>	IP67

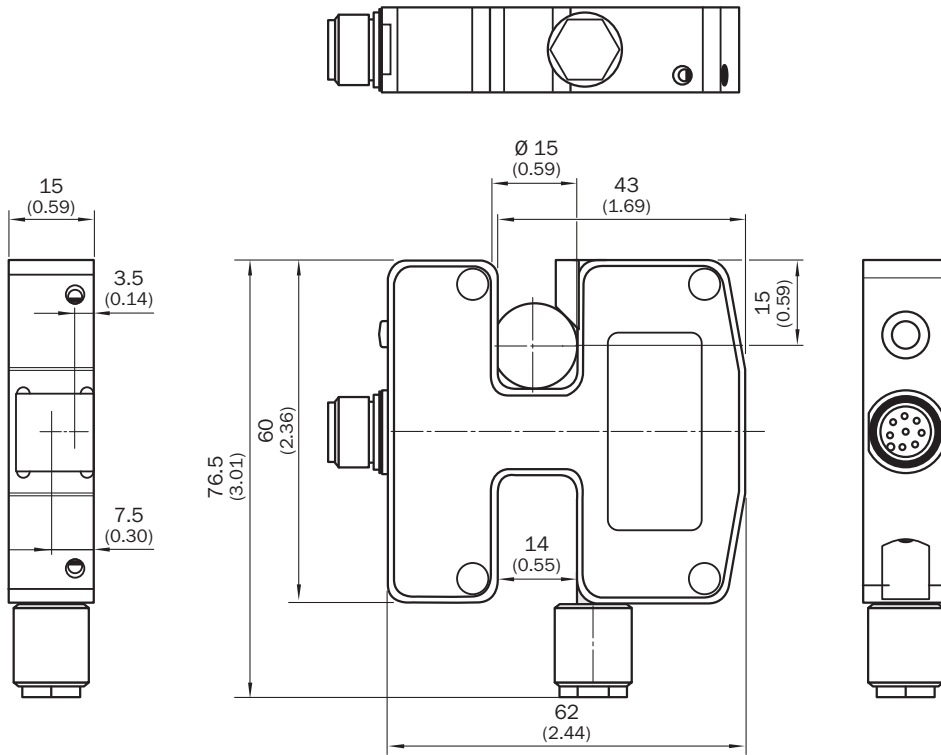
## Certificates

<b>EU declaration of conformity</b>	✓
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## Classifications

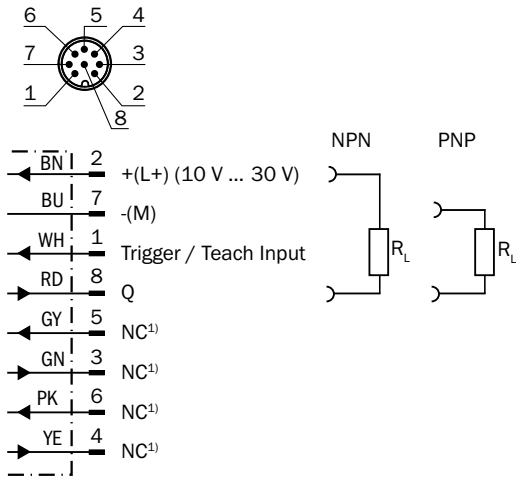
<b>ECLASS 5.0</b>	27270906
<b>ECLASS 5.1.4</b>	27270906
<b>ECLASS 6.0</b>	27270906
<b>ECLASS 6.2</b>	27270906
<b>ECLASS 7.0</b>	27270906
<b>ECLASS 8.0</b>	27270906
<b>ECLASS 8.1</b>	27270906
<b>ECLASS 9.0</b>	27270906
<b>ECLASS 10.0</b>	27270906
<b>ECLASS 11.0</b>	27270906
<b>ECLASS 12.0</b>	27270906
<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



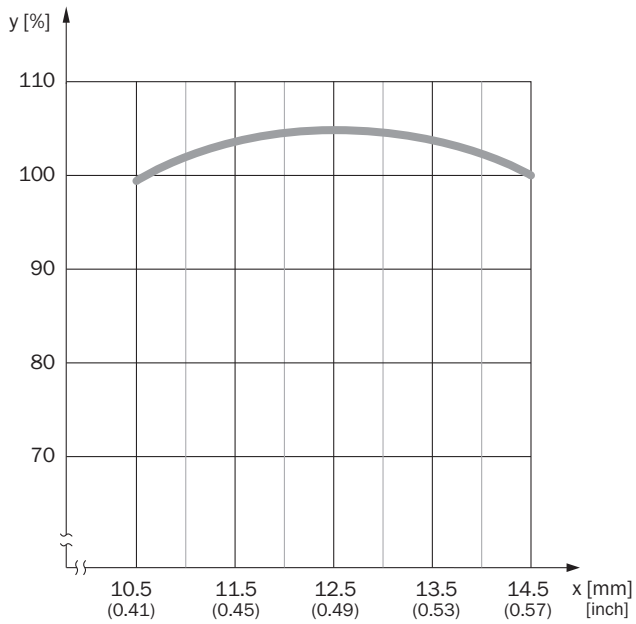
Dimensions in mm (inch)

Connection type and diagram

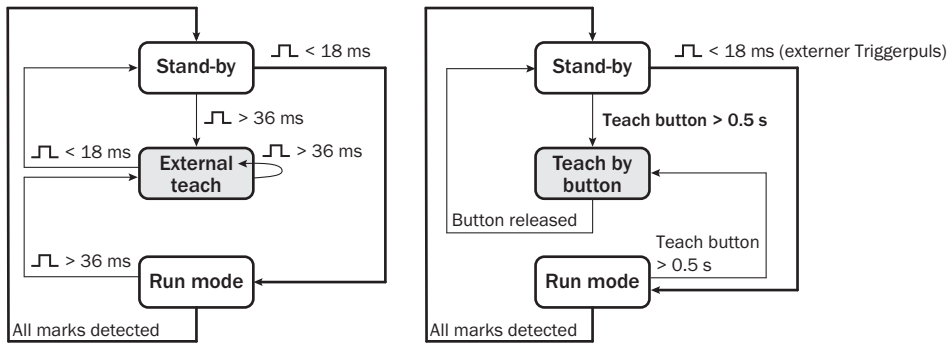


① Not connected. Leave open, do not wire to ground.

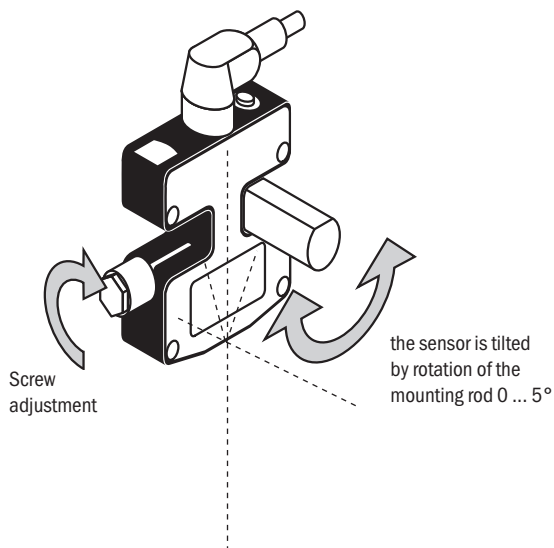
### Sensing distance



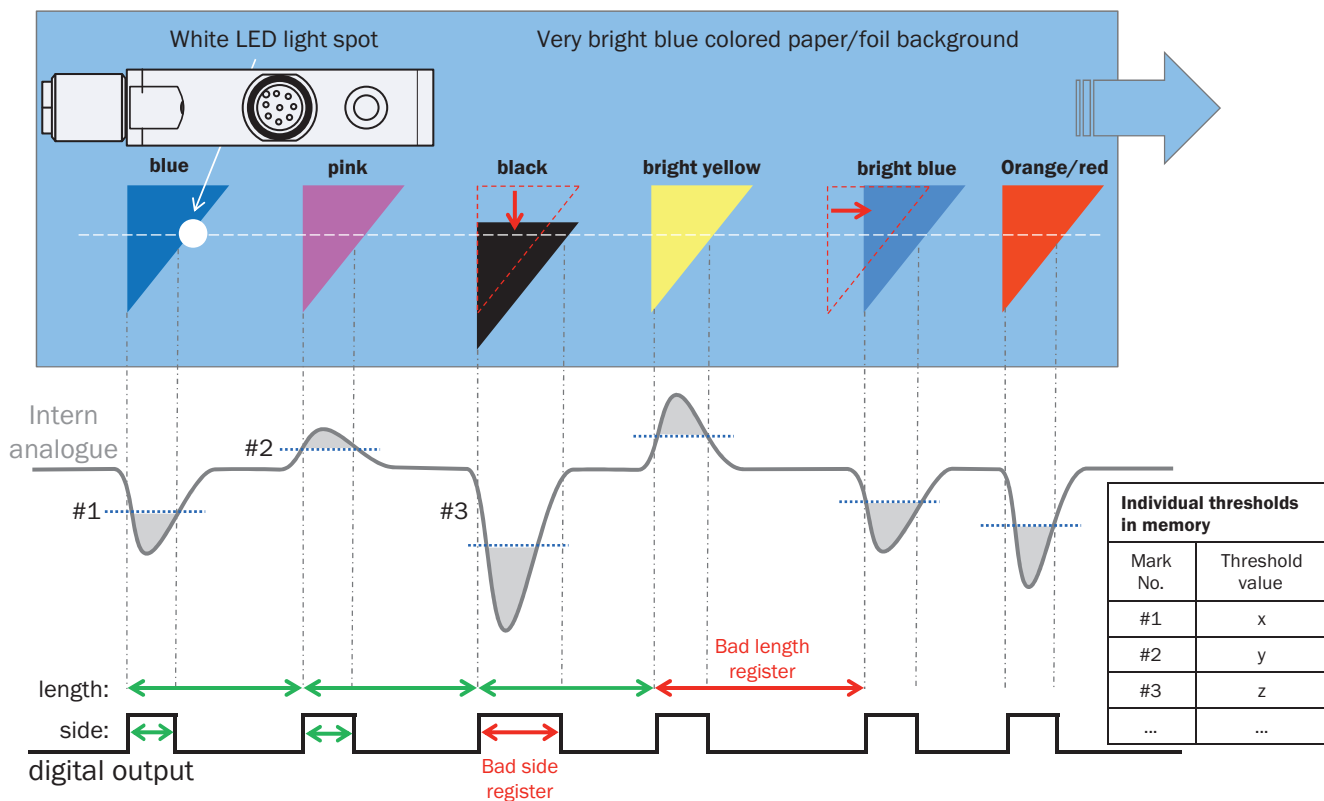
### Flow diagram



Instruction for installation





Functional principle



Recommended accessories

Other models and accessories → [www.sick.com/RS10](http://www.sick.com/RS10)

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 8-pin, angled</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 2 m, 8-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Sensor/actuator cable, shielded</li> <li>• <b>Connection systems:</b> Flying leads</li> </ul>	DOL-1208-W02MAS01	6029224
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 8-pin, straight</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Cable:</b> 2 m, 8-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Shielded</li> <li>• <b>Connection systems:</b> Flying leads</li> </ul>	YF2A68-020XXXLEAX	6032448

## 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)