

# RS10-M111

RS10

REGISTER SENSORS

**SICK**  
Sensor Intelligence.

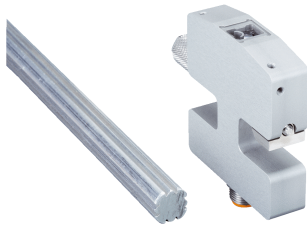


Illustration may differ



### 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>U</sub> = +25 °C.

#### Mechanics/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, push-pull: PNP/NPN   |
| <b>Switching output (voltage)</b>      | PNP/NPN, push-pull  |
| <b>Output current I<sub>max.</sub></b> | < 100 mA  |
| <b>Input, teach-in (ET)</b>            | Run: U < 2 V<br>Teach: U = 10 V ... < U <sub>V</sub>  |
| <b>Connection type</b>                 | Male connector M12, 8-pin   |
| <b>Protection class</b>                | II <sup>5)</sup>  |
| <b>Circuit protection</b>              | U <sub>V</sub> connections, reverse polarity protected<br>Interference pulse suppression<br>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 exceed or fall below 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.

|                         |                     |
|-------------------------|---------------------|
| <b>Enclosure rating</b> | IP67                |
| <b>Weight</b>           | 400 g               |
| <b>Housing material</b> | Aluminum (anodised) |

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) Signal transit time with resistive load.

5) Reference voltage DC 32 V.

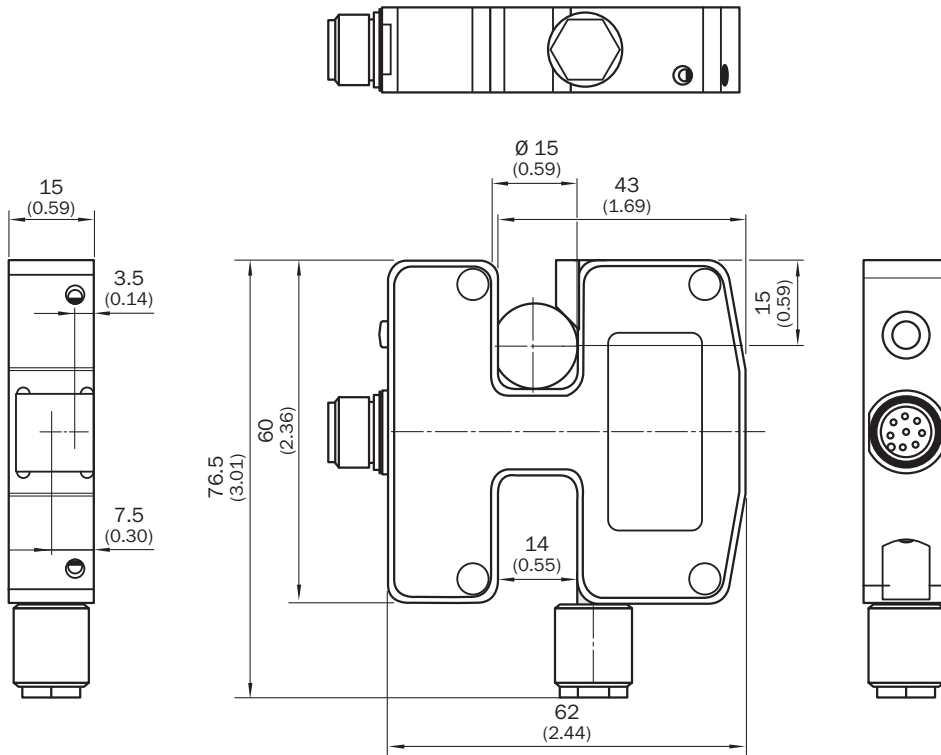
### Ambient data

|                                      |                        |
|--------------------------------------|------------------------|
| <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 |

### Classifications

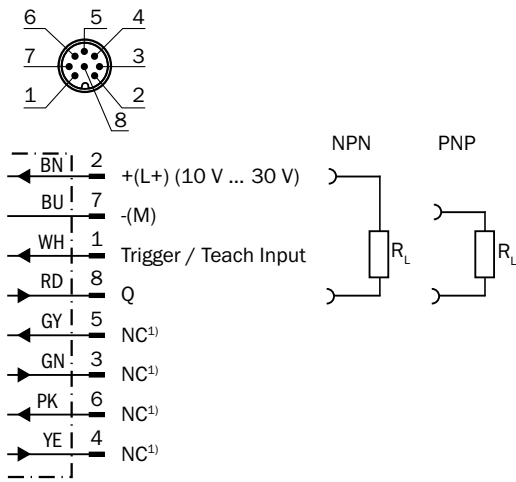
|                       |          |
|-----------------------|----------|
| <b>ECLASS 5.0</b>     | 27270906 |
| <b>ECLASS 5.1.4</b>   | 27270906 |
| <b>ECLASS 6.0</b>     | 27270906 |
| <b>ECLASS 6.2</b>     | 27270906 |
| <b>ECLASS 7.0</b>     | 27270906 |
| <b>ECLASS 8.0</b>     | 27270906 |
| <b>ECLASS 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 diagram

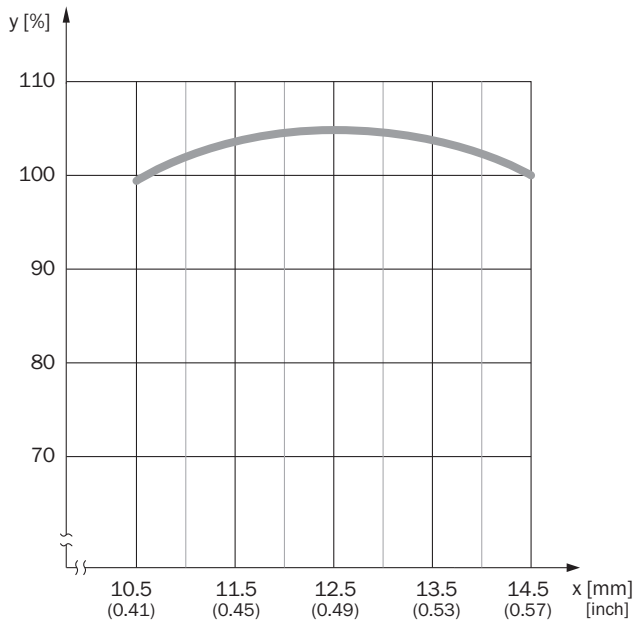
Connection type and diagram



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

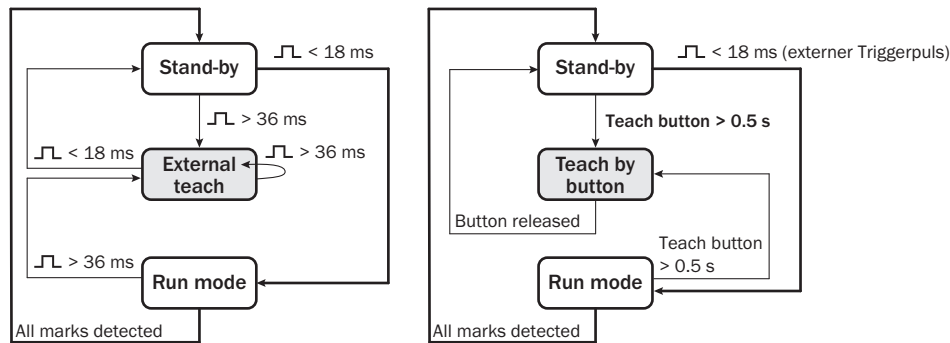
## Sensing distance

Sensing distance



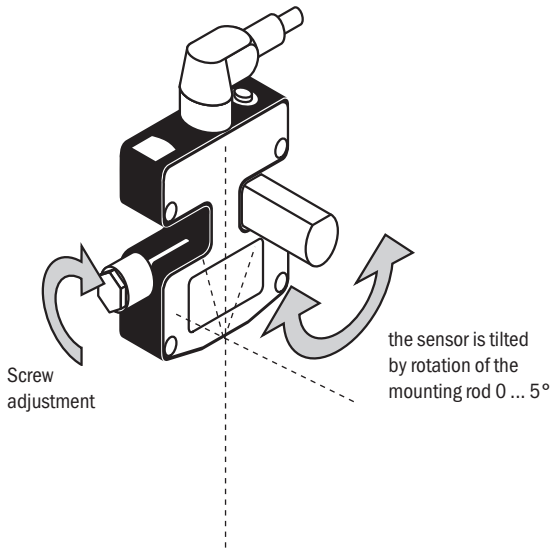
## Diagramm

Flow diagram



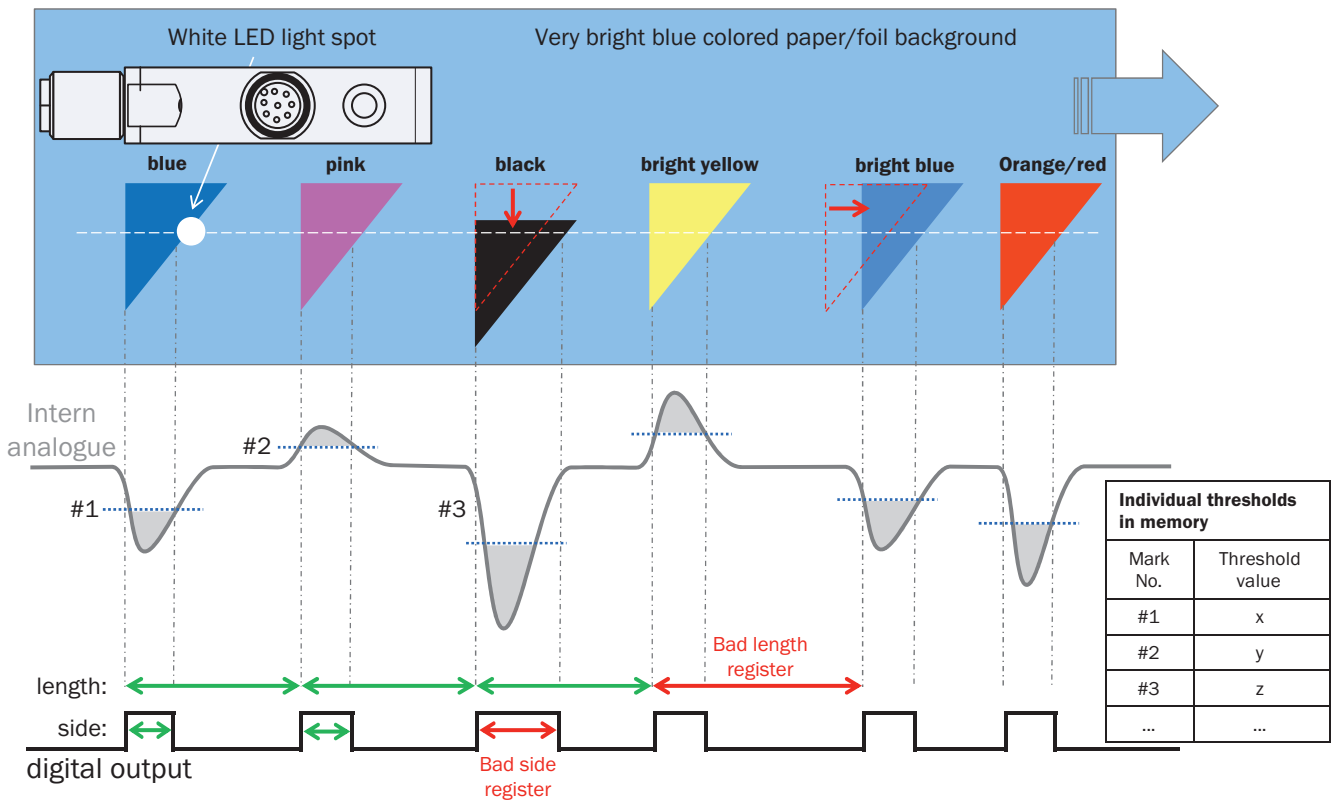
Instruction for installation

Instruction for installation





Functional principle

Functional principle



## Recommended accessories

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

|   | Brief description   | Type               | Part no. |
|---|---|--------------------|----------|
| Others  |   |                    |          |
|  | <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>   | YF2A68-020XXXXLEAX | 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)