

Illustration may differ



### Ordering information

Type	part no.
WF2-B4210	6012062

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

### Detailed technical data

#### Features

<b>Functional principle</b>	Optical detection principle
<b>Dimensions (W x H x D)</b>	12 mm x 37.1 mm x 80 mm
<b>Fork width</b>	2 mm
<b>Fork depth</b>	40 mm
<b>Light source</b>	LED, Infrared light
<b>Label detection</b>	✓
<b>Output function</b>	Light/darkswitching, adjustable via reverse polarity

#### Electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	< 10 %
<b>Current consumption</b>	40 mA <sup>1)</sup>
<b>Switching frequency</b>	10 kHz
<b>Response time</b>	≤ 30 μs
<b>Switching output</b>	PNP/NPN
<b>Switching output (voltage)</b>	PNP: HIGH = $U_V \leq 2 \text{ V}$ / LOW approx. 0 V NPN: HIGH = approx. $U_V$ / LOW ≤ 2 V
<b>Switching mode</b>	Light/dark switching
<b>Output current <math>I_{max.}</math></b>	100 mA
<b>Protection class</b>	III <sup>2)</sup>
<b>Circuit protection</b>	Output Q short-circuit protected Interference pulse suppression

<sup>1)</sup> Without load.

<sup>2)</sup> Reference voltage DC 50 V.

<b>Connection type</b>	
	Male connector M8, 4-pin

<sup>1)</sup> Without load.

<sup>2)</sup> Reference voltage DC 50 V.

## Mechanics

<b>Housing material</b>	Aluminum
<b>Weight</b>	Approx. 36 g ... 160 g <sup>1)</sup>

<sup>1)</sup> Depending on fork width.

## Ambient data

<b>Ambient operating temperature</b>	-20 °C ... +60 °C <sup>1)</sup>
<b>Ambient temperature, storage</b>	-20 °C ... +80 °C
<b>Ambient light immunity</b>	≤ 10,000 lx
<b>Shock load</b>	According to EN 60068-2-27
<b>Enclosure rating</b>	IP65
<b>UL File No.</b>	NRKH.E191603

<sup>1)</sup> Do not bend below 0 °C.

## Classifications

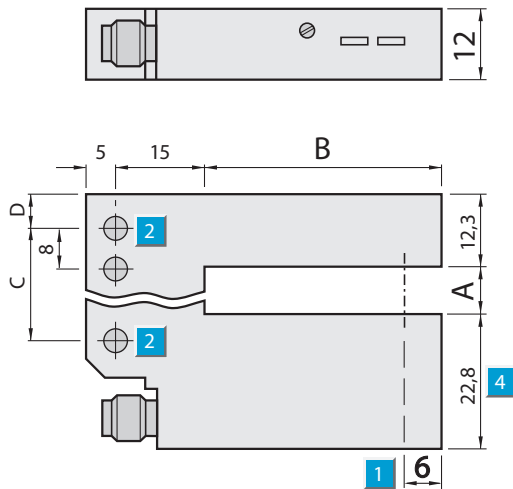
<b>ECLASS 5.0</b>	27270909
<b>ECLASS 5.1.4</b>	27270909
<b>ECLASS 6.0</b>	27270909
<b>ECLASS 6.2</b>	27270909
<b>ECLASS 7.0</b>	27270909
<b>ECLASS 8.0</b>	27270909
<b>ECLASS 8.1</b>	27270909
<b>ECLASS 9.0</b>	27270909
<b>ECLASS 10.0</b>	27270909
<b>ECLASS 11.0</b>	27270909
<b>ECLASS 12.0</b>	27270909
<b>ETIM 5.0</b>	EC002720
<b>ETIM 6.0</b>	EC002720
<b>ETIM 7.0</b>	EC002720
<b>ETIM 8.0</b>	EC002720
<b>UNSPSC 16.0901</b>	39121528

## Certificates

<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China RoHS</b>	✓

<b>cULus certificate</b>	✓
<b>Photobiological safety (IEC EN 62471)</b>	✓

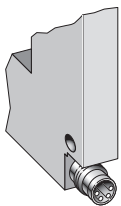
### Dimensional drawing



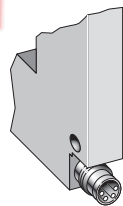
Dimensions in mm (inch)

- ① Optical axis
- ② Mounting hole,  $\varnothing$  4.2 mm

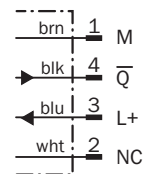
### Connection type and diagram



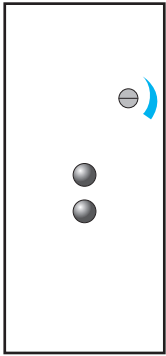
**Light switching**



**Dark switching**



## Adjustments



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## SICK AT A GLANCE

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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.”

### WORLDWIDE PRESENCE:

Contacts and other locations – [www.sick.com](http://www.sick.com)

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