

# WF2-B4210

WF

FORK SENSORS

**SICK**  
Sensor Intelligence.

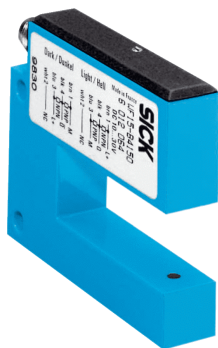


Illustration may differ



## 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>	Fork sensor
<b>Functional principle detail</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>Label detection</b>	✓
<b>Light source</b>	LED, infrared
<b>Output function</b>	Light/darkswitching, adjustable via reverse polarity

### Mechanics/electronics

<b>Current consumption</b>	40 mA <sup>1)</sup>
<b>Switching frequency</b>	10 kHz <sup>2)</sup>
<b>Response time</b>	30 μs <sup>3)</sup>
<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 $\leq 2 \text{ V}$
<b>Switching mode</b>	Light/dark switching
<b>Output current <math>I_{\text{max}}</math></b>	100 mA
<b>Connection type</b>	Male connector M8, 4-pin
<b>Protection class</b>	III <sup>4)</sup>
<b>Circuit protection</b>	Output Q short-circuit protected Interference pulse suppression

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

<sup>2)</sup> With light/dark ratio 1:1, without timer stage.

<sup>3)</sup> Signal transit time with resistive load.

<sup>4)</sup> Reference voltage DC 50 V.

<sup>5)</sup> Depending on fork width.

<b>Enclosure rating</b>	IP65
<b>Weight</b>	Approx. 36 g ... 160 g <sup>5)</sup>
<b>Housing material</b>	Metal, Aluminum

- 1) Without load.
- 2) With light/dark ratio 1:1, without timer stage.
- 3) Signal transit time with resistive load.
- 4) Reference voltage DC 50 V.
- 5) Depending on fork width.

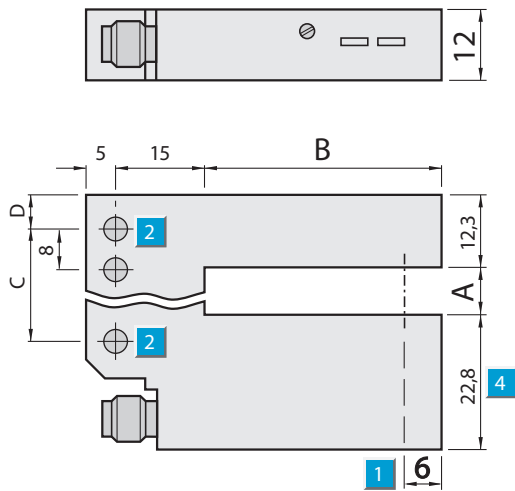
Ambient data

<b>Ambient light immunity</b>	≤ 10,000 lx
<b>Shock load</b>	According to EN 60068-2-27
<b>UL File No.</b>	NRKH.E191603

Classifications

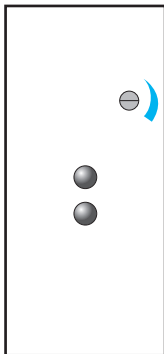
<b>ECLASS 5.0</b>	27270909
<b>ECLASS 5.1.4</b>	27270909
<b>ECLASS 6.0</b>	27270909
<b>ECLASS 6.2</b>	27270909
<b>ECLASS 7.0</b>	27270909
<b>ECLASS 8.0</b>	27270909
<b>ECLASS 8.1</b>	27270909
<b>ECLASS 9.0</b>	27270909
<b>ECLASS 10.0</b>	27270909
<b>ECLASS 11.0</b>	27270909
<b>ECLASS 12.0</b>	27270909
<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

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

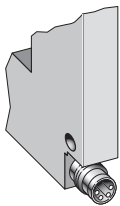


- ① Optical axis
- ② Mounting hole,  $\varnothing$  4.2 mm

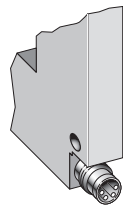
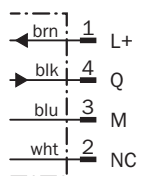
## Adjustments



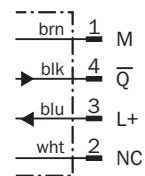
## Connection type and diagram



**Light switching**



**Dark switching**



## 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)