



# WF225-B4150

WF

FORK SENSORS

**SICK**  
Sensor Intelligence.

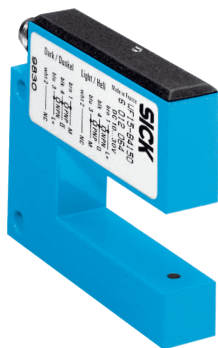


Illustration may differ



## Ordering information

Type	Part no.
WF225-B4150	6022139

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 262.5 mm x 80 mm
<b>Housing design (light emission)</b>	Fork shaped
<b>Fork width</b>	225 mm
<b>Fork depth</b>	60 mm
<b>Light source</b>	LED, infrared, Infrared light <sup>1)</sup>
<b>Output function</b>	Light/darkswitching, adjustable via reverse polarity

<sup>1)</sup> Pulsating.

### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Ripple</b>	< 10 % <sup>2)</sup>
<b>Current consumption</b>	40 mA <sup>3)</sup>
<b>Switching frequency</b>	0.5 kHz <sup>4)</sup>
<b>Response time</b>	1 ms <sup>5)</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

<sup>1)</sup> Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

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

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

<sup>4)</sup> With light/dark ratio 1:1, without timer stage.

<sup>5)</sup> Signal transit time with resistive load.

<sup>6)</sup> Reference voltage DC 50 V.

<sup>7)</sup> Depending on fork width.

<b>Connection type</b>	Male connector M8, 4-pin
<b>Protection class</b>	III <sup>6)</sup>
<b>Circuit protection</b>	Output Q short-circuit protected Interference pulse suppression
<b>Enclosure rating</b>	IP65
<b>Weight</b>	Approx. 36 g ... 160 g <sup>7)</sup>
<b>Housing material</b>	Metal, Aluminum

- 1) Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.
- 2) May not exceed or fall below  $U_v$  tolerances.
- 3) Without load.
- 4) With light/dark ratio 1:1, without timer stage.
- 5) Signal transit time with resistive load.
- 6) Reference voltage DC 50 V.
- 7) Depending on fork width.

### Ambient data

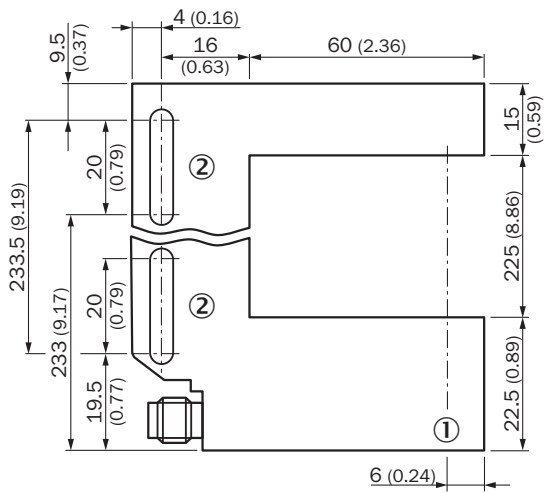
<b>Ambient operating temperature</b>	-20 °C ... +60 °C <sup>1)</sup>
<b>Ambient temperature, storage</b>	-20 °C ... +80 °C
<b>Ambient light immunity</b>	≤ 10,000 lx
<b>Shock load</b>	According to EN 60068-2-27
<b>UL File No.</b>	NRKH.E191603

- 1) Do not bend below 0 °C.

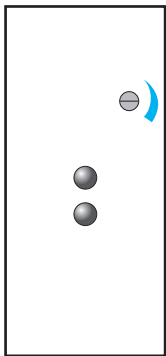
### Classifications

<b>ECl@ss 5.0</b>	27270909
<b>ECl@ss 5.1.4</b>	27270909
<b>ECl@ss 6.0</b>	27270909
<b>ECl@ss 6.2</b>	27270909
<b>ECl@ss 7.0</b>	27270909
<b>ECl@ss 8.0</b>	27270909
<b>ECl@ss 8.1</b>	27270909
<b>ECl@ss 9.0</b>	27270909
<b>ECl@ss 10.0</b>	27270909
<b>ECl@ss 11.0</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

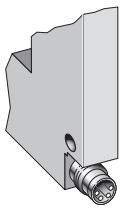
**Dimensional drawing** (Dimensions in mm (inch))



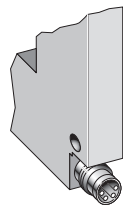
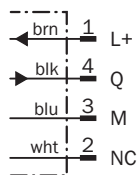
**Adjustments**



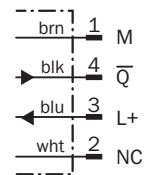
**Connection type and diagram**



**Light switching**



**Dark switching**



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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:

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