

# WF225-B4150

WF

FORK SENSORS

**SICK**  
Sensor Intelligence.

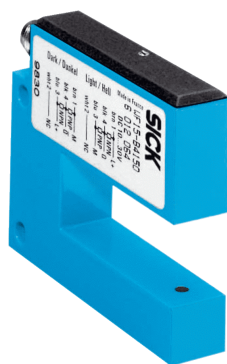
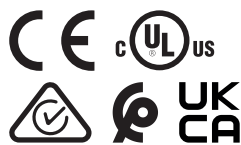


Illustration may differ



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

Functional principle	Optical detection principle
Dimensions (W x H x D)	12 mm x 262.5 mm x 80 mm
Fork width	225 mm
Fork depth	60 mm
Light source	LED, infrared, Infrared light
Output function	Light/darkswitching, adjustable via reverse polarity
Safety-related parameters	
MTTF <sub>D</sub>	97 years
DC <sub>avg</sub>	0 %

Electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	< 10 %
Current consumption	40 mA <sup>1)</sup>
Switching frequency	0.5 kHz
Response time	≤ 1 ms <sup>2)</sup>
Switching output	PNP/NPN
Switching output (voltage)	PNP: HIGH = U <sub>V</sub> ≤ 2 V / LOW approx. 0 V NPN: HIGH = approx. U <sub>V</sub> / LOW ≤ 2 V
Switching mode	Light/dark switching
Output current I <sub>max.</sub>	100 mA
Circuit protection	Output Q short-circuit protected Interference pulse suppression

<sup>1)</sup> Without load.  
<sup>2)</sup> Signal transit time with resistive load.

<b>Enclosure rating</b>	IP65
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1) Without load.

2) Signal transit time with resistive load.

## Mechanics

<b>Housing material</b>	Aluminum
<b>Connection type</b>	Male connector M8, 4-pin
<b>Weight</b>	Approx. 36 g ... 160 g <sup>1)</sup>

1) 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>Protection class</b>	III <sup>2)</sup>
<b>UL File No.</b>	NRKH.E191603

1) Do not bend below 0 °C.

2) Reference voltage DC 50 V.

## Certificates

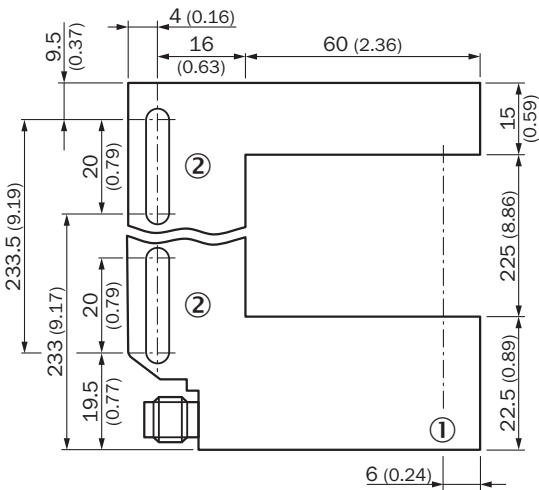
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China-RoHS</b>	✓
<b>cULus certificate</b>	✓
<b>Photobiological safety (IEC EN 62471)</b>	✓

## 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

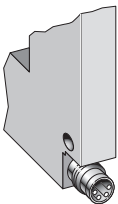
ETIM 8.0	EC002720
UNSPSC 16.0901	39121528

Dimensional drawing

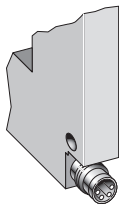
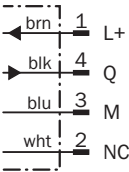


Dimensions in mm (inch)  
① Optical axis  
② Mounting hole, Ø 4.2 mm

Connection type and diagram



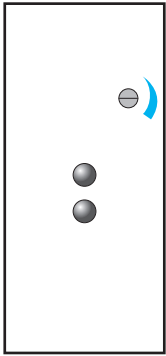
Light switching



Dark switching



## Adjustments



## 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)