

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

Detailed technical data

Features

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

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	< 10 %
Current consumption	40 mA ¹⁾
Switching frequency	10 kHz
Response time	≤ 30 μs ²⁾
Switching output	PNP/NPN
Switching output (voltage)	PNP: HIGH = $U_V \leq 2 \text{ V}$ / LOW approx. 0 V NPN: HIGH = approx. U_V / LOW ≤ 2 V
Switching mode	Light/dark switching
Output current I_{max}	100 mA
Connection type	Male connector M8, 4-pin
Protection class	III ³⁾

¹⁾ Without load.

²⁾ Signal transit time with resistive load.

³⁾ Reference voltage DC 50 V.

⁴⁾ Depending on fork width.

Circuit protection	Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP65
Weight	Approx. 36 g ... 160 g ⁴⁾
Housing material	Aluminum

¹⁾ Without load.

²⁾ Signal transit time with resistive load.

³⁾ Reference voltage DC 50 V.

⁴⁾ Depending on fork width.

Ambient data

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

¹⁾ Do not bend below 0 °C.

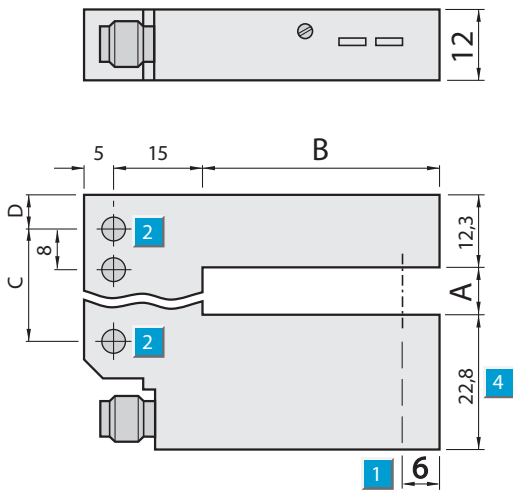
Certificates

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

Classifications

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

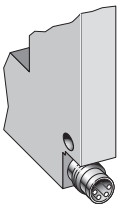
Dimensional drawing



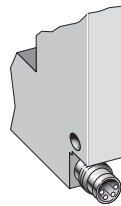
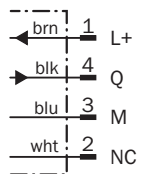
Dimensions in mm (inch)

- ① Optical axis
- ② Mounting hole, Ø 4.2 mm

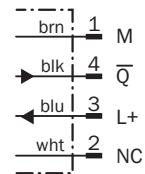
Connection type and diagram



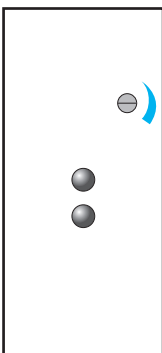
Light switching



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