



Fork sensors  
WF, WF Standard

WF2-B4210

**Model Name** > [WF2-B4210](#)  
**Part No.** > [6012062](#)



#### At a glance

- Infrared light source
- Simple and accurate adjustment via teach-in or manually via "+"/"-" buttons
- Fast response time (max. 100 µs)
- PNP and NPN switching output
- Light/dark switching function
- 21 different models with different fork widths and depths
- Rugged, IP 65 aluminum housing

#### Your benefits

- Fast response time and fine resolution ensure reliable detection even at high speeds
- Infrared light source provides excellent ambient light immunity
- User friendly setting via teach-in or "+"/"-" button
- A wide range of different fork sizes enables flexible installation
- The aluminum housing meets all requirements for use in harsh industrial conditions



#### Features

Functional principle:	Optical detection principle
Fork width:	2 mm
Fork depth:	60 mm
Label detection:	✓
Light source:	LED, infrared
Type of light:	Infrared
Output function:	Light/darkswitching, adjustable via reverse polarity

#### Mechanics/electronics

Supply voltage $V_s$ <sup>1)</sup> :	10 V ... 30 V
Ripple <sup>2)</sup> :	< 10 %
Power consumption <sup>3)</sup> :	40 mA
Switching frequency <sup>4)</sup> :	10 kHz
Response time <sup>5)</sup> :	30 µs
Output type:	NPN: HIGH = approx. $V_S$ / LOW $\leq 2$ V PNP: HIGH = $V_S - \leq 2$ V / LOW approx. 0 V
Switching mode:	PNP/NPN (Push/ Pull)
Output current $I_{max.}$ :	100 mA
Connection type:	Connector M8, 4-pin

Ambient light safety:	Incandescent lamp: $\leq 3,000$ klx
Protection class <sup>6)</sup> :	III
Circuit protection:	Output Q short-circuit protected Interference suppression
Enclosure rating:	IP 65
Weight:	Ca. 36 g ... 160 g <sup>7)</sup>
Housing material:	Aluminum
Teach-in:	0

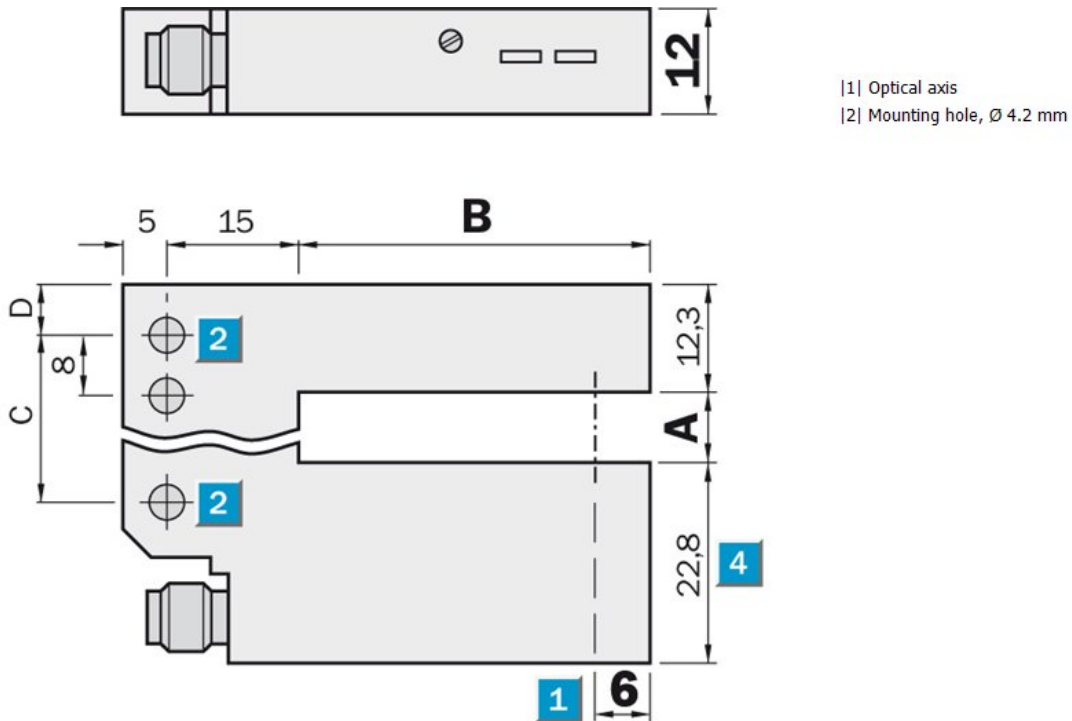
<sup>1)</sup> Limit values, reverse-polarity protected   
<sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances   
<sup>3)</sup> Without load   
<sup>4)</sup> With light/dark ratio 1:1, no time delay   
<sup>5)</sup> Signal transit time with resistive load   
<sup>6)</sup> Reference voltage DC 50 V   
<sup>7)</sup> Depending on fork width

### Ambient data

Ambient temperature <sup>1)</sup> :	Operation: -20 ... 60 °C Storage: -20 ... 80 °C
Shock load:	According to EN 60068-2-27
UL File-No.:	UL No. NRKH.E191603

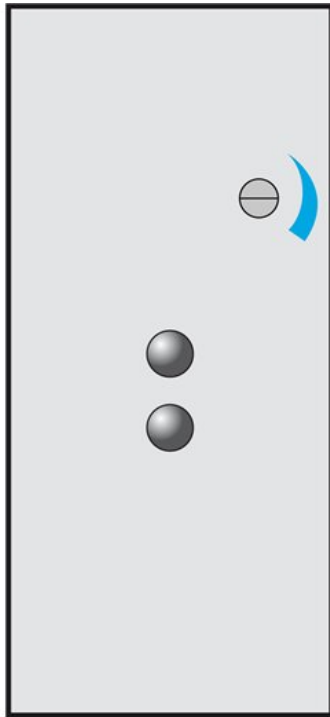
<sup>1)</sup> Do not bend below 0 °C

### Dimensional drawing



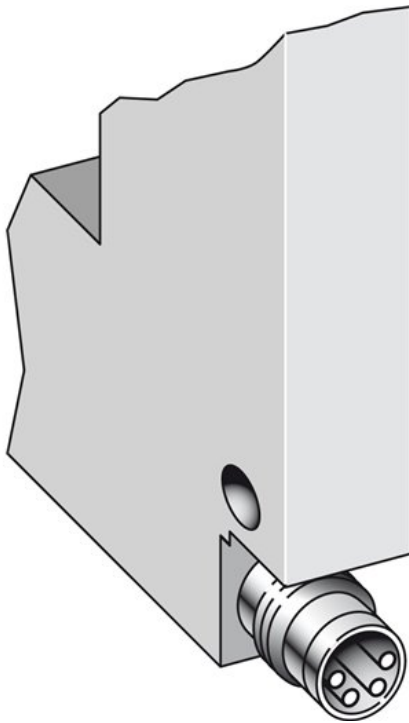
## Adjustments

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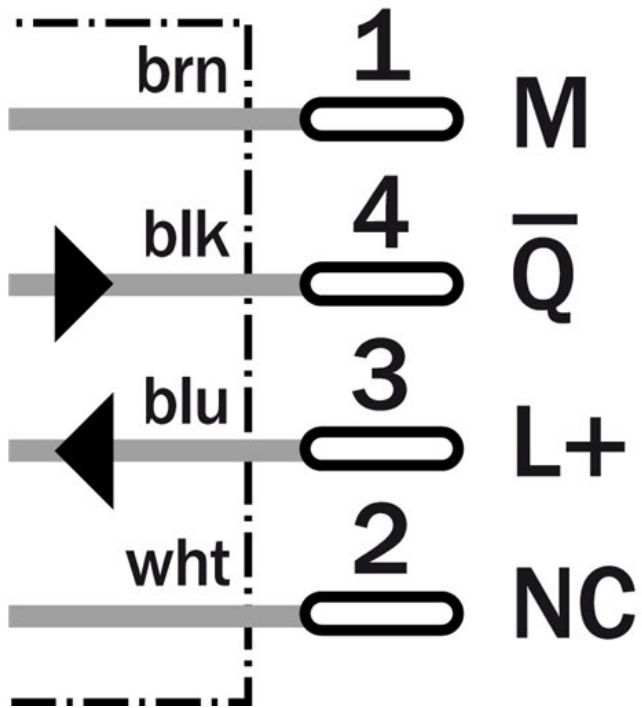


## Connection type

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Connection diagram



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