



## Fork sensors WF, WF3T/5T

WF3T-B4210



**Model Name** > [WF3T-B4210](#)  
**Part No.** > [6020874](#)



Illustration may differ

**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:	3 mm
Fork depth:	60 mm
Label detection:	✓
Light source <sup>1)</sup> :	LED
Type of light:	Infrared light
Output function:	Light/darkswitching, adjustable via reverse polarity
Housing design (light emission):	Fork shaped

<sup>1)</sup> Continuous

**Mechanics/electronics**

Residual ripple <sup>1)</sup> :	< 10 %
Power consumption <sup>2)</sup> :	40 mA
Switching frequency <sup>3)</sup> :	10 kHz
Response time <sup>4)</sup> :	50 µs
Output type:	NPN: HIGH = approx. VS / LOW ≤ 2 V PNP: HIGH = VS- ≤ 2 V / LOW approx. 0 V
Switching mode:	PNP/NPN (Push/ Pull)

Output current I <sub>max</sub> .:	100 mA
Electrical connection:	Connector M8, 4-pin
Protection class <sup>5)</sup> :	III
Circuit protection:	Output Q short-circuit protected Interference suppression
Enclosure rating:	IP 65
Weight:	≥ ca. 60 g <sup>6)</sup>
Housing material:	Aluminum, Metal
Teach-in:	1
Supply voltage:	10 V DC ... 30 V DC <sup>7)</sup>
Ambient light immunity:	Incandescent lamp: ≤ 3,000 klx
Fieldbus interface:	-

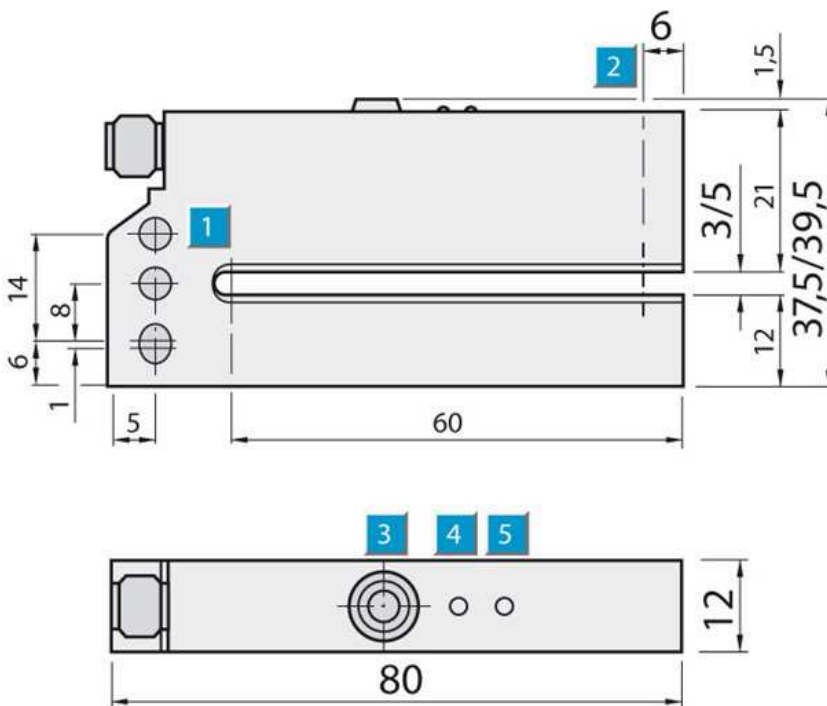
<sup>1)</sup> May not exceed or fall short of V<sub>S</sub> tolerances <sup>2)</sup> Without load <sup>3)</sup> With light/dark ratio 1:1, no time delay <sup>4)</sup> Signal transit time with resistive load <sup>5)</sup> Reference voltage DC 50 V <sup>6)</sup> Depending on fork width <sup>7)</sup> Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A

### Ambient data

Shock load:	According to EN 60068-2-27
UL File No.:	NRKH.E191603
Ambient temperature operation:	-20 °C ... +60 °C <sup>1)</sup>
Ambient storage temperature:	-30 °C ... +80 °C

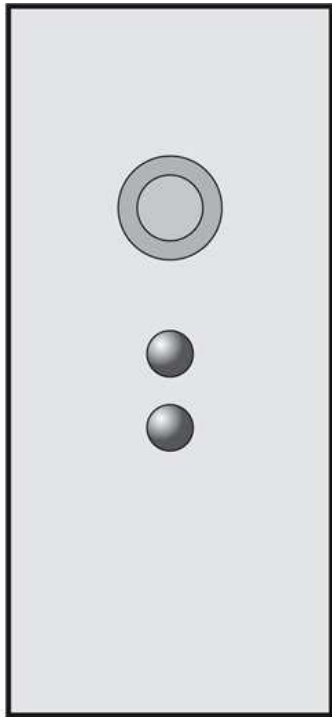
<sup>1)</sup> Do not bend below 0 °C

### Dimensional drawing



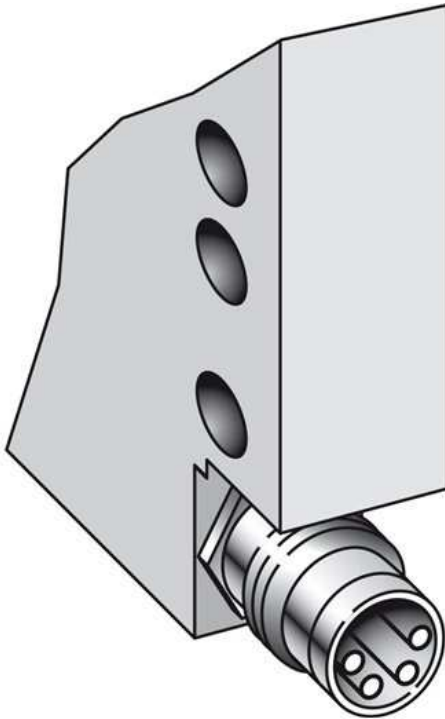
**Adjustments**

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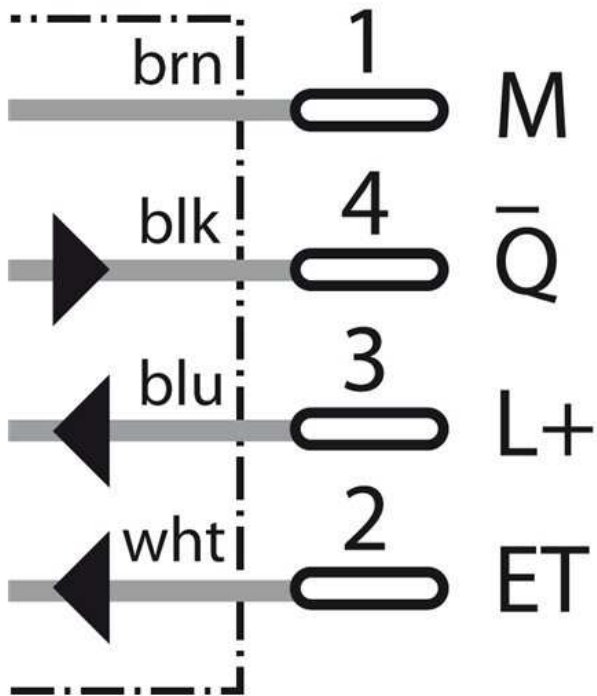


**Connection type**

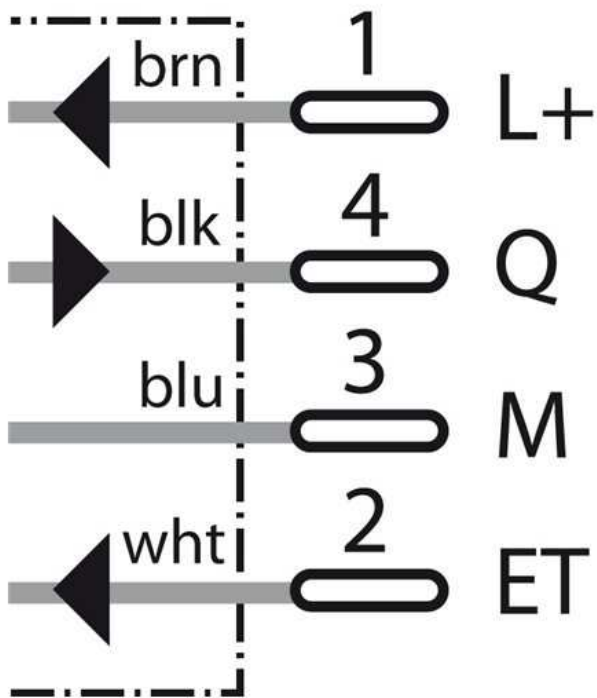
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Connection diagram



Connection diagram



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