



Fork sensors WF, WF3T/5T

WF5T-B4210

Model Name > [WF5T-B4210](#)
Part No. > [6021220](#)



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:	5 mm
Fork depth:	60 mm
Label detection:	✓
Light source:	LED, infrared continuous
Type of light:	Infrared
Output function:	Light/darkswitching, adjustable via reverse polarity

Mechanics/electronics

Supply voltage V_s ¹⁾ :	10 V ... 30 V
Ripple ²⁾ :	< 10 %
Power consumption ³⁾ :	40 mA
Switching frequency ⁴⁾ :	10 kHz
Response time ⁵⁾ :	50 µs
Output type:	NPN: HIGH = approx. V_S / LOW ≤ 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 ⁶⁾ :	III
Circuit protection:	Output Q short-circuit protected Interference suppression
Enclosure rating:	IP 65
Weight:	$\geq$ ca. 60 g ⁷⁾
Housing material:	Aluminum
Teach-in:	1

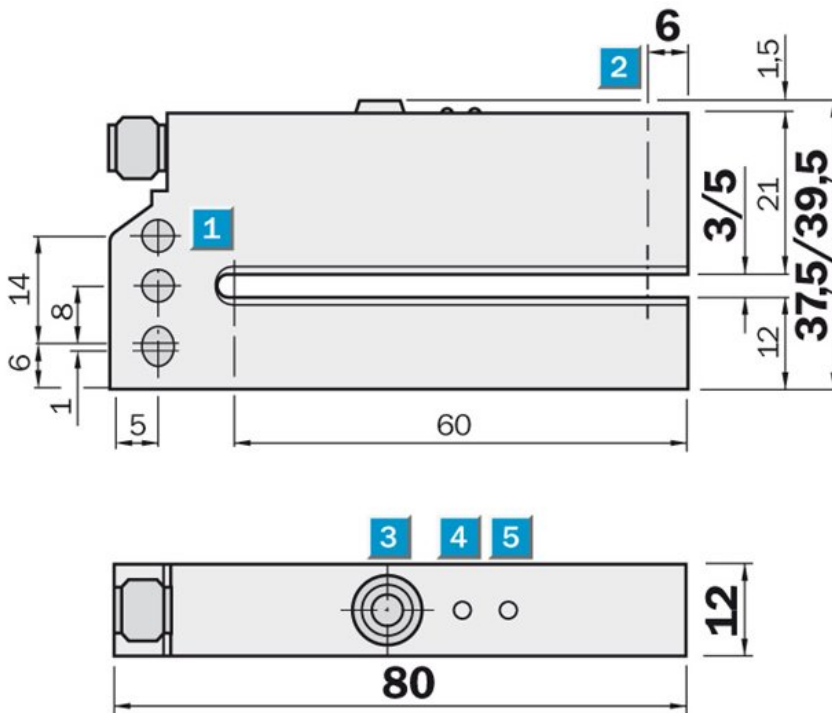
¹⁾ Limit values, reverse-polarity protected ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ With light/dark ratio 1:1, no time delay ⁵⁾ Signal transit time with resistive load ⁶⁾ Reference voltage DC 50 V ⁷⁾ Depending on fork width

Ambient data

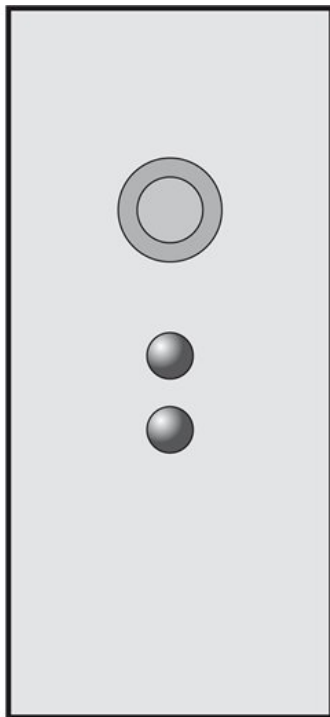
Ambient temperature ¹⁾ :	Operation: -20 ... 60 °C Storage: -30 ... 80 °C
Shock load:	According to EN 60068-2-27
UL File-No.:	UL No. NRKH.E191603

¹⁾ Do not bend below 0 °C

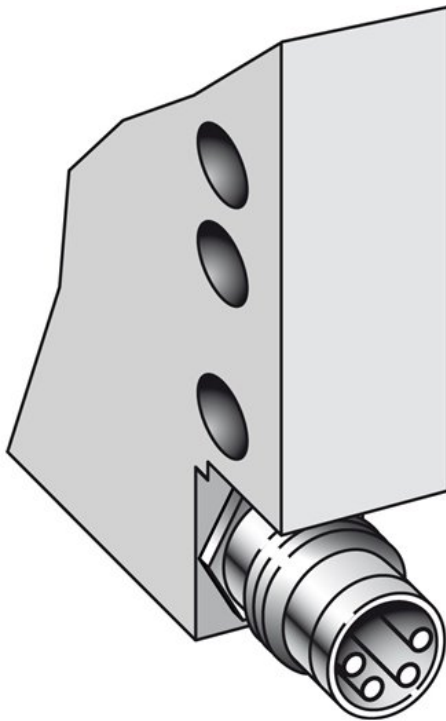
Dimensional drawing



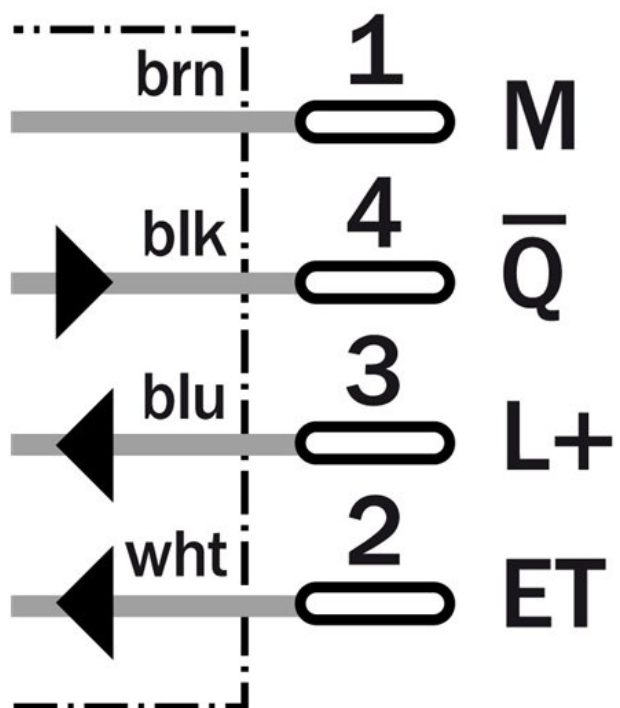
Adjustments



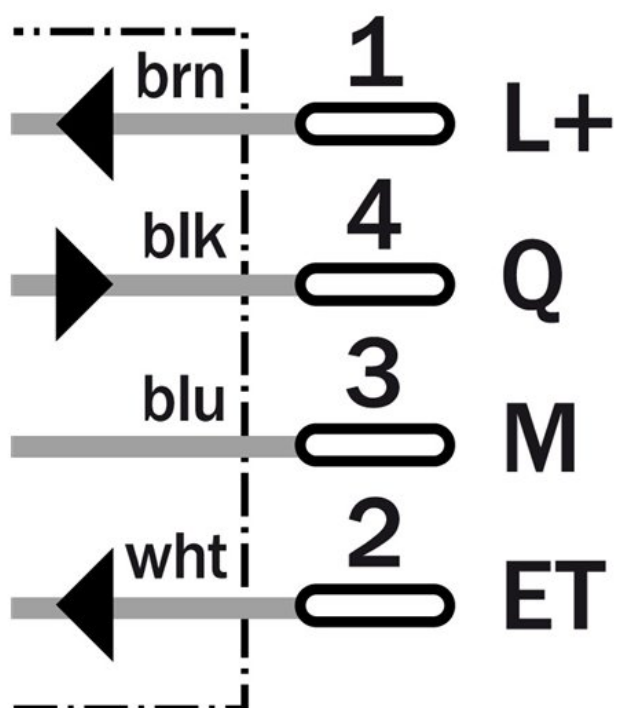
Connection type



Connection diagram



Connection diagram



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