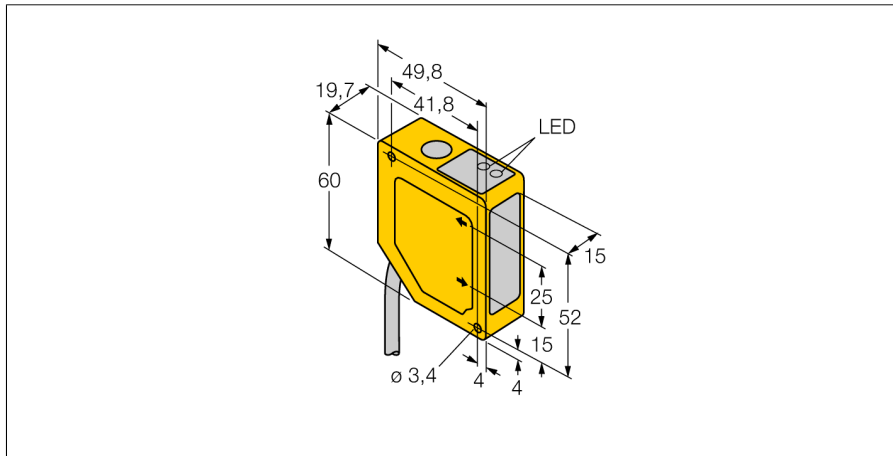
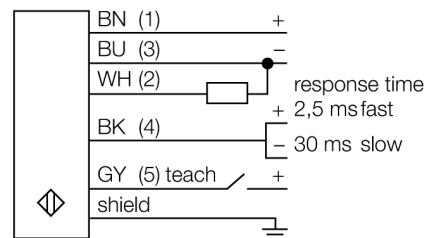


**Photoelectric sensor  
triangulation sensor with analog output  
Q50AI**



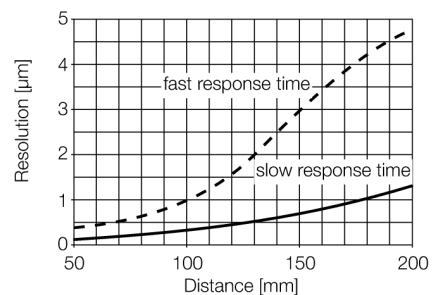
- **Foreground and background suppression**
- **Operating range 50...200 mm**
- **2 m cable, 5-pole**
- **Operating voltage 15...30 VDC**
- **Analog current output 4...20 mA**
- **selectable output response of 4 ms (fast) and 64 ms (slow)**

**Wiring diagram**



**Functional principle**

The function principle of the Q50 is based on optical triangulation. The emitter and the optics create a light source that is directed towards a target. The target reflects the light back to the receiver lens of the sensor, from where it then falls onto the position sensitive device (PSD). The target's distance from the receiver determines the angle at which the light meets the receiver element. The integrated microprocessor uses this angle to analyse the target position and to create a corresponding output signal.



<b>Type code</b>	Q50AI
Ident no.	3067603
<b>Operating mode</b>	Diffuse mode sensor with adjustable foreground and background suppression
Light type	IR
Wavelength	880 nm
Repeatability	0.5 mm
Range	50...200 mm
Ambient temperature	-10...+55 °C
<b>Operating voltage</b>	15...30VDC
No-load current I <sub>0</sub>	≤ 70 mA
Current output	4...20mA
Readiness delay	≤ 2 s
<b>Design</b>	rectangular, Q50
Dimensions	49.8 x 19.7 x 60 mm
Housing material	plastic, ABS
Lens	plastic, acrylic
Connection	cable
Cable length	2 m
Cable cross section	5 x 0.5 mm <sup>2</sup>
Protection class	IP67