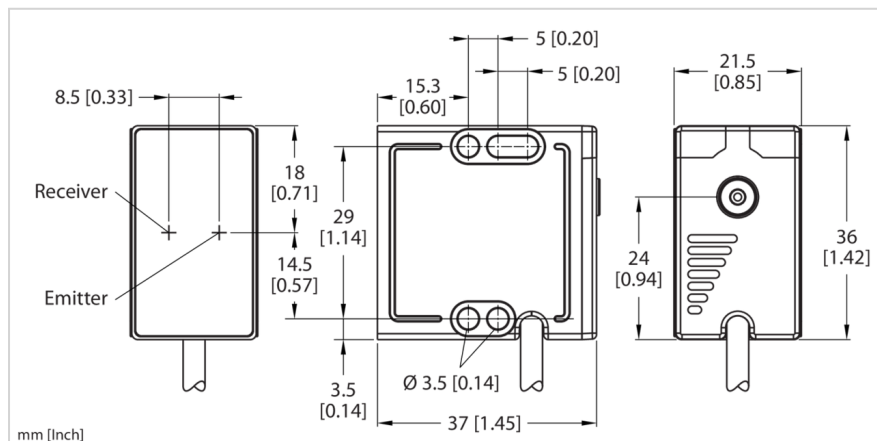


B25-K6LP-Q5

Photoelectric sensor Retroreflective Sensor With Wide Light Beam



Typ	B25-K6LP-Q5
Ident-No.	3816999

Technical data

Detection area/measuring range	
Minimum target size	3 mm
Range	0...2000 mm
Optical data	
Light type	Red
Wavelength	630 nm
Power supply	
Operating voltage U_B	10...30 VDC
Electrical data	
Output function	1 × PNP
Wire break/reverse polarity protection	yes
Power	≤1.2 W
Response time typical	<0.5 ms
Switching frequency	≤1000 Hz
Interfaces	
Communication protocol	IO-Link
Outputs	

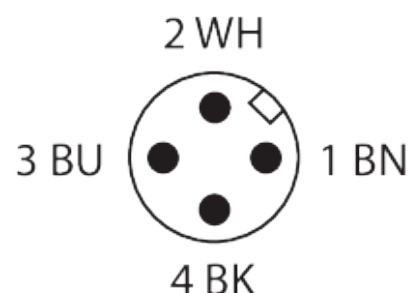
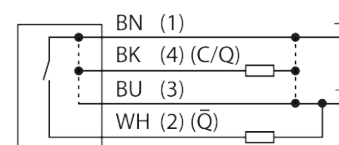
Features

- Protection class IP67/IP69
- 200-mm PVC cable with M12 × 1 male, 4-pin
- Range up to 2 m with reflector BRT-92X92CB
- Extra-wide light beam
- Operating voltage: 10...30 VDC
- 1 × switching output, PNP/NPN IO-Link
- 1 × switching output, dark operation PNP

Technical data

Output 2	Switching output
IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Communication mode	COM 2 (38.4 kBaud)
Process data width	16 bit
Switching point information	1 bit
Minimum cycle time	2.9 ms
Function Pin 2	DI
Function pin 4	IO-Link
Maximum cable length	20 m
Profile support	Smart Sensor Profile
Included in the SIDI GSDML	No
Mechanical data	
Design	Rectangular
Construction type designation	B25
Dimensions	45.3 mm x 21.5 mm x 37 mm
Housing material	Plastic, PC PBT
Electrical connection	Cable with connector, M12 × 1
Lens	plastic, PMMA
Cable	
Cable length	0.2 m
Core cross-section	4
Environmental conditions	
Ambient temperature	-40...+60 °C
Storage temperature	-40...+70 °C
Protection class	IP67 IP69
Display/operation	
Power-on indication	LED, Green
Switching state	LED, Yellow
Setting option	Push Button
Comments	
Reflector included in delivery	no

Wiring Diagram



Functional principle

Retroreflective sensors have an emitter and a receiver incorporated in the same housing. The light beam of the emitter is directed at a reflector which returns the light back to the receiver. An object is detected when it interrupts this light beam. Retroreflective sensors feature some of the advantages of opposed mode sensors, such as good contrast and high excess gain. Furthermore, only one device has to be installed and wired. However, the range is smaller and devices without a polarizing filter are more susceptible to disturbances caused by shiny objects.

The B25 product series is characterized by an extra-wide beam of light, which enables the edges of objects that are not standard shapes to be reliably detected. Various sensitivity settings facilitate operation in the area of material handling.