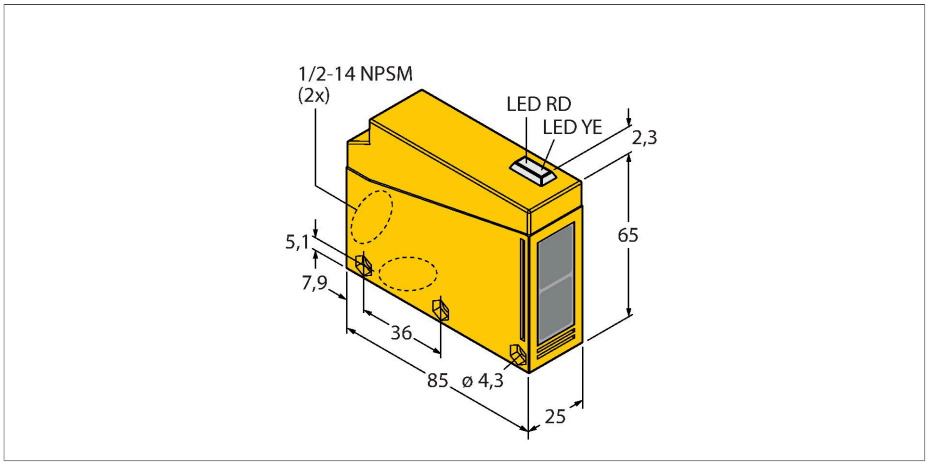
Q85BB62R-B
Photoelectric Sensor – Opposed Mode Sensor (Receiver)



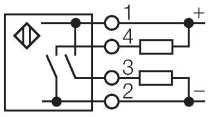
Technical data

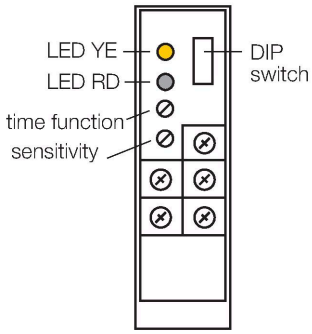
Type	Q85BB62R-B
ID	3034267
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Wavelength	680 nm
Range	0…23000 mm
Electrical data	
Operating voltage	10…48 VDC
DC rated operational current	≤ 120 mA
No-load current	≤ 50 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 500 Hz
Readiness delay	≤ 0 ms
Response time typical	< 1 ms
Overcurrent release	> 270 mA
Setting option	Potentiometer
Mechanical data	
Design	Rectangular, Q85
Dimensions	85 x 65 x 25 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	acrylic, Acrylic
Electrical connection	Terminal block
Number of cores	4
Ambient temperature	-25…+55 °C

Features

- Integrated terminal chamber
- Cable glands, offset installation by 90° in two places
- Protection class IP67
- AID alignment aid
- Operating voltage: 10…48 VDC
- Outputs: 1 × PNP, 1 × NPN
- Light and dark operation
- Sensitivity adjusted via potentiometer

Wiring diagram





Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremly high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions.

Excess gain curve
Excess gain in relation to the distance

Technical data

Protection class	IP67
Switching state	LED, Yellow
Excess gain indication	LED, red, flashing

Tests/approvals