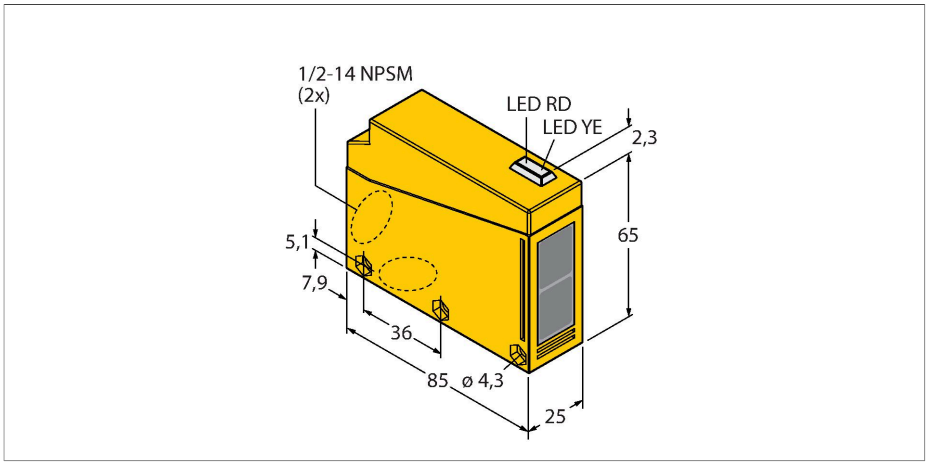
Q85BB62DL-B
Photoelectric Sensor – Diffuse Mode Sensor



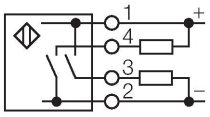
Technical data

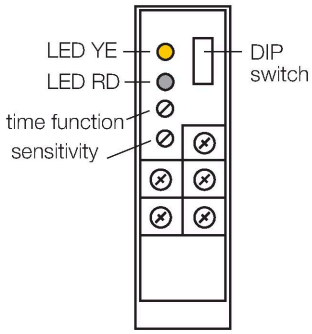
Type	Q85BB62DL-B
ID	3034261
Optical data	
Function	Proximity switch
Operating mode	Diffuse
Light type	IR
Wavelength	880 nm
Range	10…1000 mm
Electrical data	
Operating voltage	10…48 VDC
DC rated operational current	≤ 120 mA
No-load current	≤ 50 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	0.25 kHz
Switching frequency	≤ 250 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

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

Identical to retro-reflective sensors, emitter and receiver circuitry are incorporated in the same housing of the diffuse mode sensors. However, diffuse mode sensors do not detect the interruption of the light beam but the reflection of the target. A target is detected if it reflects a sufficient amount of light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the reflectivity of the target. This type of sensor is especially suited for detection of transparent objects (diffuse mode sensor with or without background suppression or convergent mode sensors).

Excess gain curve
Excess gain in relation to the distance

Technical data

Number of cores	4
Ambient temperature	-25…+55 °C
Protection class	IP67
Switching state	LED, Yellow
Excess gain indication	LED, red, flashing
Tests/approvals