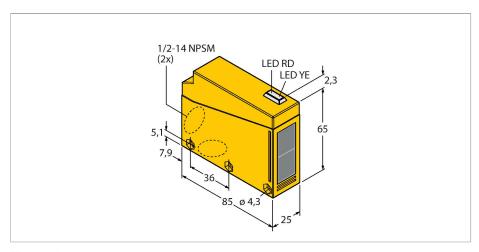


# Q85BB62LP-B Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter



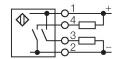
#### Technical data

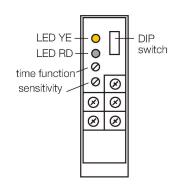
ID       3034257         Optical data       Function       Retroreflective Sensor         Operating mode       Polarized         Reflector included in delivery       no         Light type       Red polarized         Wavelength       680 nm         Range       8046000 mm         Electrical data       Operating voltage         Operating voltage       1048 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         Switching frequency       ≤ 500 Hz         Readiness delay       ≤ 0 ms         Response time typical       < 1 ms         Overcurrent release       > 270 mA         Setting option       Potentiometer         Mechanical data       Design         Dimensions       85 x 65 x 25 mm         Housing material       Plastic, Thermoplastic material, Yellow	Туре	Q85BB62LP-B
Function       Retroreflective Sensor         Operating mode       Polarized         Reflector included in delivery       no         Light type       Red polarized         Wavelength       680 nm         Range       8046000 mm         Electrical data       Pocrating voltage         Operating voltage       1048 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         Switching frequency       ≤ 500 Hz         Readiness delay       ≤ 0 ms         Response time typical       < 1 ms	ID	3034257
Operating mode Polarized   Reflector included in delivery no   Light type Red polarized   Wavelength 680 nm   Range 8046000 mm   Electrical data Operating voltage   Operating voltage 1048 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	Optical data	
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Wavelength680 nmRange8046000 mmElectrical data	Reflector included in delivery	no
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DC rated operational current  Solution   Short-circuit protection   Short-	Electrical data	
No-load current ≤ 50 mA   Short-circuit protection yes / Cyclic   Reverse polarity protection yes   Output function NO contact, PNP/NPN   Switching frequency 0.5 kHz   Switching frequency ≤ 500 Hz   Readiness delay ≤ 0 ms   Response time typical < 1 ms	Operating voltage	1048 VDC
Short-circuit protection       yes / Cyclic         Reverse polarity protection       yes         Output function       NO contact, PNP/NPN         Switching frequency       0.5 kHz         Switching frequency       ≤ 500 Hz         Readiness delay       ≤ 0 ms         Response time typical       < 1 ms	DC rated operational current	≤ 120 mA
Reverse polarity protection yes   Output function NO contact, PNP/NPN   Switching frequency 0.5 kHz   Switching frequency ≤ 500 Hz   Readiness delay ≤ 0 ms   Response time typical < 1 ms	No-load current	≤ 50 mA
Output function       NO contact, PNP/NPN         Switching frequency       0.5 kHz         Switching frequency       ≤ 500 Hz         Readiness delay       ≤ 0 ms         Response time typical       < 1 ms	Short-circuit protection	yes / Cyclic
Switching frequency 0.5 kHz   Switching frequency ≤ 500 Hz   Readiness delay ≤ 0 ms   Response time typical < 1 ms	Reverse polarity protection	yes
Switching frequency ≤ 500 Hz   Readiness delay ≤ 0 ms   Response time typical < 1 ms	Output function	NO contact, PNP/NPN
Readiness delay ≤ 0 ms   Response time typical < 1 ms	Switching frequency	0.5 kHz
Response time typical < 1 ms  Overcurrent release > 270 mA  Setting option Potentiometer  Mechanical data  Design Rectangular, Q85  Dimensions 85 x 65 x 25 mm	Switching frequency	≤ 500 Hz
Overcurrent release > 270 mA  Setting option Potentiometer  Mechanical data  Design Rectangular, Q85  Dimensions 85 x 65 x 25 mm	Readiness delay	≤ 0 ms
Setting option Potentiometer  Mechanical data  Design Rectangular, Q85  Dimensions 85 x 65 x 25 mm	Response time typical	< 1 ms
Mechanical data  Design Rectangular, Q85  Dimensions 85 x 65 x 25 mm	Overcurrent release	> 270 mA
Design Rectangular, Q85  Dimensions 85 x 65 x 25 mm	Setting option	Potentiometer
Dimensions 85 x 65 x 25 mm	Mechanical data	
200000000000000000000000000000000000000	Design	Rectangular, Q85
Housing material Plastic, Thermoplastic material, Yellow	Dimensions	85 x 65 x 25 mm
	Housing material	Plastic, Thermoplastic material, Yellow

#### **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

Retro-reflective sensors incorporate emitter and receiver in a single compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors incorporate some of the advantages of opposed mode sensors (good contrast and high excess gain). Further it is merely required to install and wire a single device. A smaller sensing range and susceptibility of devices without polarisation filter can be of disadvantage when shiny objects have to be detected.

Excess gain curve Excess gain in relation to the distance



## Technical data

Lens	acrylic, Acrylic
Electrical connection	Terminal block
Number of cores	4
Ambient temperature	-25+55 °C
Protection class	IP67
Switching state	LED, Yellow
Excess gain indication	LED, red, flashing
Tests/approvals	

