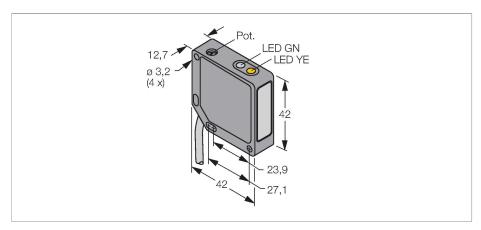


QM42VN6LP Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter



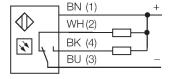
Technical data

·	Туре	QM42VN6LP
Function Retroreflective Sensor Operating mode Polarized Reflector included in delivery no Light type Red polarized Wavelength 660 nm Range 1503000 mm Electrical data Operating voltage 1030 VDC Residual ripple < 10 % Uss DC rated operational current ≤ 100 mA No-load current ≤ 30 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical <1 ms Overcurrent release > 150 mA Setting option Potentiometer Mechanical data Design Rectangular, QM42 Dimensions 42 x 12.7 x 42 mm Housing material Metal, Zinc Alloy Die-Cast, Black-finishe	ID	3044902
Operating mode Polarized Reflector included in delivery no Light type Red polarized Wavelength 660 nm Range 1503000 mm Electrical data 0perating voltage Operating voltage 1030 VDC Residual ripple < 10 % U₂s	Optical data	
Reflector included in delivery Light type Red polarized Wavelength 660 nm Range 1503000 mm Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U₂₂ DC rated operational current No-load current ≤ 30 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay Response time typical Overcurrent release Setting option Potentiometer Mechanical data Design Rectangular, QM42 Dimensions Housing material Metal, Zinc Alloy Die-Cast, Black-finishe	Function	Retroreflective Sensor
Light type Red polarized Wavelength 660 nm Range 1503000 mm Electrical data 0perating voltage 1030 VDC Residual ripple < 10 % U₅s	Operating mode	Polarized
Wavelength 660 nm Range 1503000 mm Electrical data 1030 VDC Residual ripple < 10 % U₂₂	Reflector included in delivery	no
Range 1503000 mm Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U₅s DC rated operational current ≤ 100 mA No-load current ≤ 30 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical <1 ms Overcurrent release > 150 mA Setting option Potentiometer Mechanical data Design Rectangular, QM42 Dimensions 42 x 12.7 x 42 mm Housing material Metal, Zinc Alloy Die-Cast, Black-finishe	Light type	Red polarized
Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U₂₂ DC rated operational current ≤ 100 mA No-load current ≤ 30 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical < 1 ms Overcurrent release > 150 mA Setting option Potentiometer Mechanical data Design Rectangular, QM42 Dimensions 42 x 12.7 x 42 mm Housing material Metal, Zinc Alloy Die-Cast, Black-finishe	Wavelength	660 nm
Operating voltage 1030 VDC Residual ripple < 10 % U _{ss} DC rated operational current ≤ 100 mA No-load current ≤ 30 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical < 1 ms	Range	1503000 mm
Residual ripple < 10 % U₅s	Electrical data	
DC rated operational current ≤ 100 mA No-load current ≤ 30 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical < 1 ms	Operating voltage	1030 VDC
No-load current ≤ 30 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical < 1 ms	Residual ripple	< 10 % U _{ss}
Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical < 1 ms	DC rated operational current	≤ 100 mA
Reverse polarity protection yes Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical < 1 ms	No-load current	≤ 30 mA
Output function NO/NC, NPN Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical < 1 ms	Short-circuit protection	yes
Switching frequency ≤ 500 Hz Readiness delay ≤ 100 ms Response time typical < 1 ms	Reverse polarity protection	yes
Readiness delay ≤ 100 ms Response time typical < 1 ms	Output function	NO/NC, NPN
Response time typical < 1 ms Overcurrent release > 150 mA Setting option Potentiometer Mechanical data Design Rectangular, QM42 Dimensions 42 x 12.7 x 42 mm Housing material Metal, Zinc Alloy Die-Cast, Black-finishe	Switching frequency	≤ 500 Hz
Overcurrent release > 150 mA Setting option Potentiometer Mechanical data Design Rectangular, QM42 Dimensions 42 x 12.7 x 42 mm Housing material Metal, Zinc Alloy Die-Cast, Black-finishe	Readiness delay	≤ 100 ms
Setting option Potentiometer Mechanical data Design Rectangular, QM42 Dimensions 42 x 12.7 x 42 mm Housing material Metal, Zinc Alloy Die-Cast, Black-finisher	Response time typical	< 1 ms
Mechanical dataDesignRectangular, QM42Dimensions42 x 12.7 x 42 mmHousing materialMetal, Zinc Alloy Die-Cast, Black-finishe	Overcurrent release	> 150 mA
DesignRectangular, QM42Dimensions42 x 12.7 x 42 mmHousing materialMetal, Zinc Alloy Die-Cast, Black-finishe	Setting option	Potentiometer
Dimensions 42 x 12.7 x 42 mm Housing material Metal, Zinc Alloy Die-Cast, Black-finishe	Mechanical data	
Housing material Metal, Zinc Alloy Die-Cast, Black-finishe	Design	Rectangular, QM42
·	Dimensions	42 x 12.7 x 42 mm
	Housing material	Metal, Zinc Alloy Die-Cast, Black-finished
Lens plastic, Acrylic	Lens	plastic, Acrylic

Features

- Cable, PVC, 2 m, 4-wire
- ■Metal housing, ZN, black
- ■Protection class IP67
- Sensitivity adjusted via potentiometer
- Operating voltage 10...30 VDC
- ■NPN switching output
- Light/dark operation

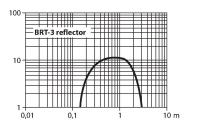
Wiring diagram



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





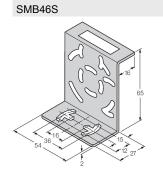
Technical data

Electrical connection	Cable, 2 m, PVC
Number of cores	4
Core cross-section	0.5 mm ²
Ambient temperature	-20+70 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
Tests/approvals	
Approvals	CE, cURus

Accessories

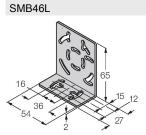
Mounting bracket, PBT black, with mounting plate, stainless steel, for types with 18 mm thread, QM42/ QMT42

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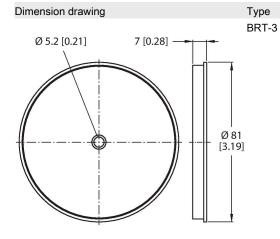
Mounting bracket, stainless steel, for QS18, QS30, MINI-BEAM, QM42/QMT42

3048748



3048747 Mounting bracket, stainless steel, for QS18, QS30, MINI-BEAM, QM42/ QMT42

Accessories



ID 3016164

Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C