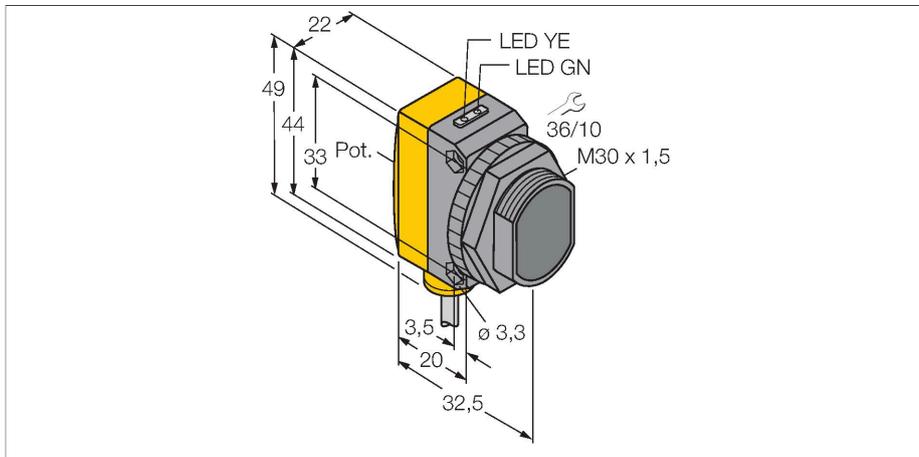


# QS30LV

## Photoelectric Sensor – Retroreflective Sensor



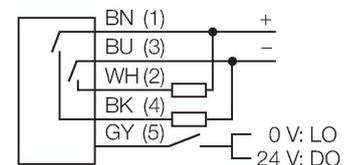
### Technical data

Type	QS30LV
ID no.	3072605
<b>Optical data</b>	
Function	Retroreflective Sensor
Operating mode	Unpolarized
Light type	Red
Wavelength	630 nm
Range	10...12000 mm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U <sub>ss</sub>
DC rated operational current	≤ 150 mA
No-load current	≤ 35 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 250 Hz
Readiness delay	≤ 100 ms
Response time typical	< 2 ms
Setting option	Potentiometer
<b>Mechanical data</b>	
Design	Rectangular with thread, QS30
Dimensions	Ø 30 x 35 x 22 x 49 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	5

### Features

- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via potentiometer
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

### Wiring diagram



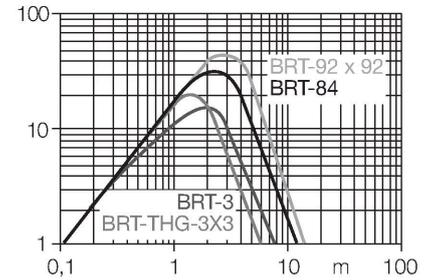
### Functional principle

Retro-reflective sensors incorporate emitter and receiver in the same 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

Core cross-section	0.5 mm <sup>2</sup>
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, yellow
<b>Tests/approvals</b>	
Approvals	CE



## Accessories

**SMBQS30Y** 3002811

Protective housing, stainless steel, for QS30 series

**SMBQS30YL** 3072741

Protective housing with safety glass panel, stainless steel, for QS30 series

**SMB30A** 3032723

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

**SMBQS30L** 3002809

Mounting bracket, stainless steel, for QS30 series

**SMB30MM** 3027162

Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment

**SMB30SC** 3052521

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

## Accessories

Dimension drawing	Type	ID no.	
	BRT-84	3058979	Round reflector, reflection coefficient 1.4, material acrylic, ambient temperature -20 ... +60 °C

