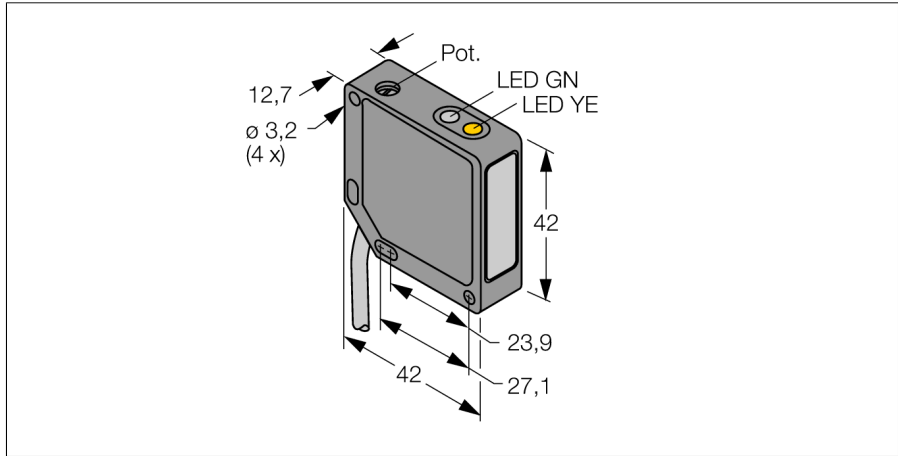
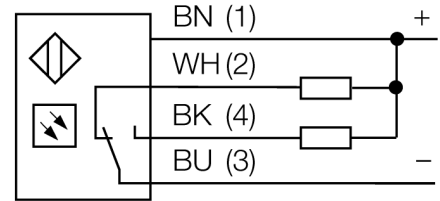


**Photoelectric sensor  
retroreflective sensor with polarizing filter  
QM42VN6LP**



- 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**

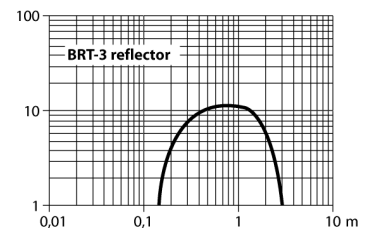


**Functional principle**

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**

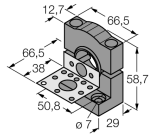
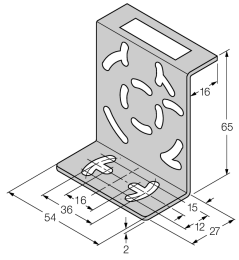
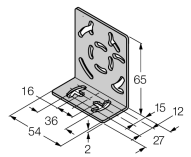
Excess gain in relation to the distance



<b>Type code</b>	QM42VN6LP
Ident no.	3044902
<b>Operating mode</b>	retro-reflective sensor with polarisation filter
Light type	red
Wavelength	660 nm
Range	150...3000 mm
Ambient temperature	-20...+70 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	< 10 % U <sub>s</sub>
DC rated operational current	≤ 100 mA
No-load current I <sub>0</sub>	≤ 30 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC , NPN
Switching frequency	≤ 500 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 150 mA
<b>Design</b>	rectangular, QM42
Dimensions	42 x 12.7 x 42 mm
Housing material	metal, ZN, black lacquer
Lens	plastic, acrylic
Connection	cable, PVC
Cable length	2 m
Cable cross section	4 x 0.5 mm <sup>2</sup>
Protection class	IP67
<b>Power-on indication</b>	LED green
Switching state	LED yellow
Error indication	LED green flashing
Alarm display	LED yellow flashing

**Photoelectric sensor  
retroreflective sensor with polarizing filter  
QM42VN6LP**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
SMB30SK	3052523	Mounting bracket, PBT black, with mounting plate, stainless steel, for types with 18 mm thread, QM42/QMT42	
SMB46S	3048748	Mounting bracket, stainless steel, for QS18, QS30, MINI-BEAM, QM42/QMT42	
SMB46L	3048747	Mounting bracket, stainless steel, for QS18, QS30, MINI-BEAM, QM42/QMT42	

**Function accessories**

Type code	Ident no.	Description	Dimension drawing
BRT-3	3016164	Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20 ... +60 °C	