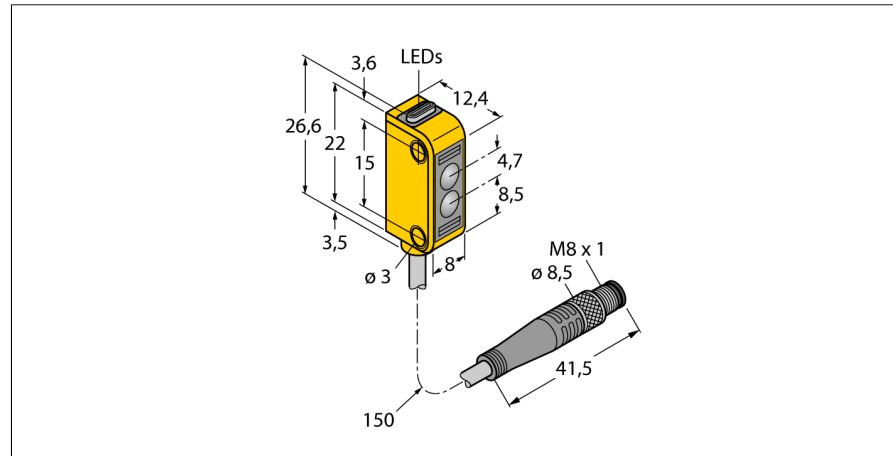
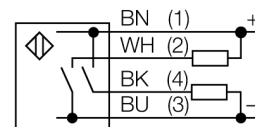


**Photoelectric sensor  
retroreflective sensor with polarizing filter  
miniature sensor  
Q12RB6LPQ**

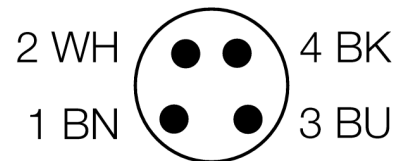


- Cable with male end, 4-pin, PVC, 150 mm, 8 mm
- Protection class IP67
- LED all-round visible
- Indication of insufficient excess gain
- Glass lens
- Operating voltage: 10...30 VDC
- Switching output, bipolar, dark operation

**Wiring diagram**



<b>Type code</b>	Q12RB6LPQ
Ident no.	3072132
<b>Operating mode</b>	retro-reflective sensor with polarisation filter
Light type	red
Wavelength	640 nm
Range	100...1000 mm
Ambient temperature	-20...+55 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	< 10 % U <sub>s</sub>
DC rated operational current	≤ 50 mA
No-load current I <sub>0</sub>	≤ 20 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO, dark operation, PNP/NPN
Switching frequency	≤ 700 Hz
Readiness delay	≤ 120 ms
<b>Design</b>	rectangular, Q12
Dimensions	12.4 x 8 x 26.6 mm
Housing material	plastic, Elastomere, yellow
Lens	glass
Connection	cable with connector, PVC, M8 x 1
Cable length	0.15 m
Cable cross section	4 x 0.34 mm <sup>2</sup>
Protection class	IP67
MTTF	135 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Power-on indication</b>	LED green
Switching state	LED yellow
Error indication	LED green
Excess gain indication	LED yellow flashing

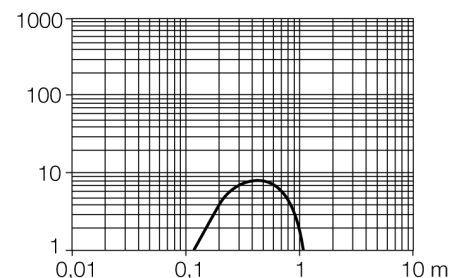


**Functional principle**

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



**Photoelectric sensor  
retroreflective sensor with polarizing filter  
miniature sensor  
Q12RB6LPQ**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
SMBQ12A	3074341	Mounting bracket; material VA 1.4401, for photoelectric sensor, Q12 series	
SMBQ12T	3073722	Mounting bracket; material VA 1.4401, for photoelectric sensor, Q12 series	

**Wiring accessories**

Type code	Ident no.	Description	Dimension drawing
PKG4M-2/TEL	6625061	Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	
PKW4M-2/TEL	6625067	Connection cable, female M8, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	

Photoelectric sensor  
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**Function accessories**

Type code	Ident no.	Description	Dimension drawing
BRT-60X40C	3044997	Rectangular reflector, reflection coefficient 1.48, material: acrylic, ambient temperature -20...+60 °C	