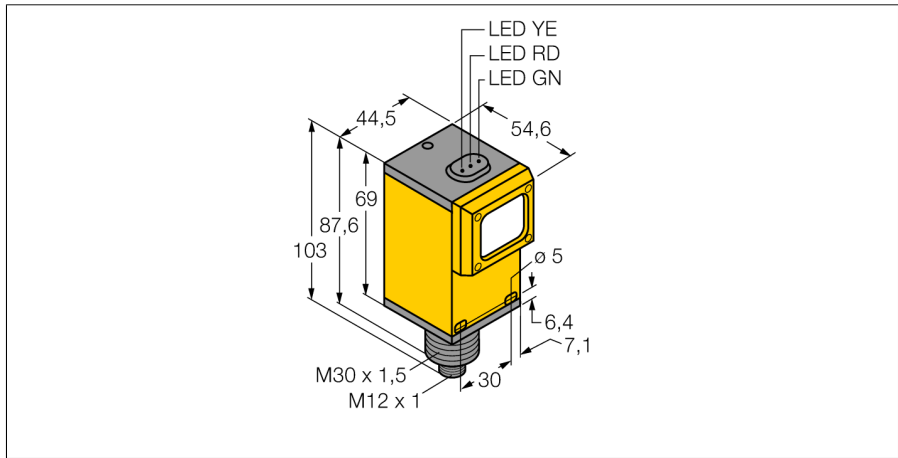
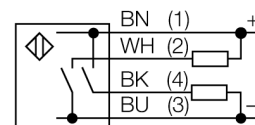


**Photoelectric sensor
retroreflective sensor with polarizing filter
Q45BB6LPQ5**

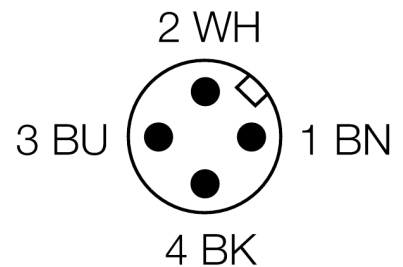


- Male M12 x 1
- Protection class IP67
- Sensitivity adjusted via potentiometer
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation, adjusted via switch

Wiring diagram



Type code	Q45BB6LPQ5
Ident no.	3038666
Operating mode	retro-reflective sensor with polarisation filter
Light type	red
Wavelength	650 nm
Range	150...6000 mm
Ambient temperature	-40...+70 °C
Operating voltage	10...30VDC
Residual ripple	< 10 % U _s
No-load current I ₀	≤ 50 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 250 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 220 mA
Design	rectangular, Q45
Dimensions	53.3 x 12.3 x 30.7 mm
Housing material	plastic, PBT
Lens	plastic, acrylic
Connection	male, M12 x 1
Protection class	IP67
MTTF	67 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Switching state	LED yellow
Error indication	LED green flashing
Excess gain indication	LED red

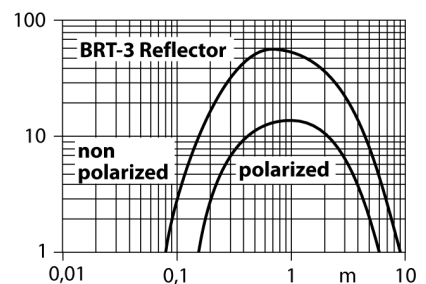


Functional principle

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.

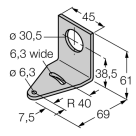
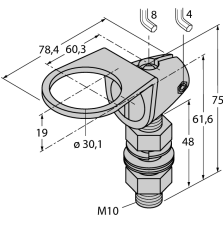
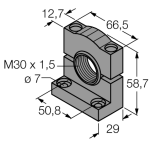
Excess gain curve

Excess gain in relation to the distance

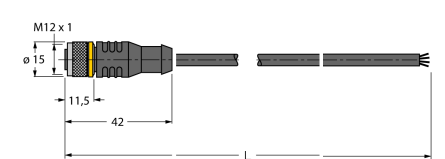
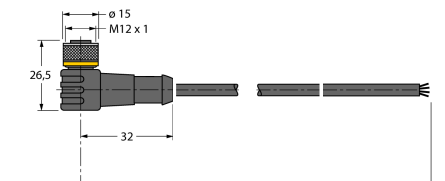


**Photoelectric sensor
retroreflective sensor with polarizing filter
Q45BB6LPQ5**

Accessories

Type code	Ident no.	Description	Dimension drawing
SMB30A	3032723	Mounting bracket, stainless steel, for sensors with 30 mm thread	
SMB30FAM10	3011185	Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm	
SMB30SC	3052521	Mounting bracket, PBT black; for 30 mm thread; with 4 screws M5 x 0.8	

Wiring accessories

Type code	Ident no.	Description	Dimension drawing
RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	
WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	

**Photoelectric sensor
retroreflective sensor with polarizing filter
Q45BB6LPQ5**

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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	