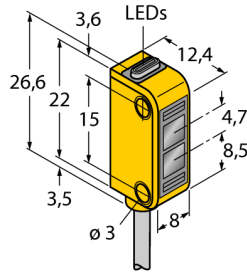
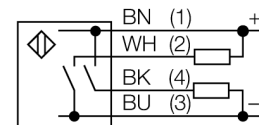


**Photoelectric sensor
opposed mode sensor (emitter/receiver)
miniature sensor
Q12AB6R**



- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Indication of insufficient excess gain
- Operating voltage: 10...30 VDC
- Switching output, bipolar, light operation

Wiring diagram

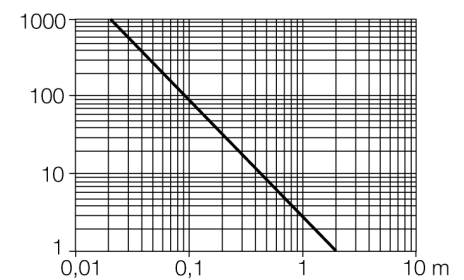


Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions.

Excess gain curve

Excess gain in relation to the distance



Type code	Q12AB6R
Ident no.	3072134
Operating mode	opposed mode sensor (receiver)
Range	0...2000 mm
Ambient temperature	-20...+55 °C
Operating voltage	10...30VDC
Residual ripple	< 10 % U _s
DC rated operational current	≤ 50 mA
No-load current I ₀	≤ 20 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO, light operation, PNP/NPN
Switching frequency	≤ 450 Hz
Readiness delay	≤ 120 ms
Design	rectangular, Q12
Dimensions	12.4 x 8 x 26.6 mm
Housing material	plastic, Elastomere, yellow
Lens	plastic, polycarbonate
Connection	cable, PVC
Cable length	2 m
Cable cross section	4 x 0.34 mm ²
Protection class	IP67
MTTF	139 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Switching state	LED yellow
Error indication	LED green
Excess gain indication	LED yellow flashing

**Photoelectric sensor
opposed mode sensor (emitter/receiver)
miniature sensor
Q12AB6R**

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	