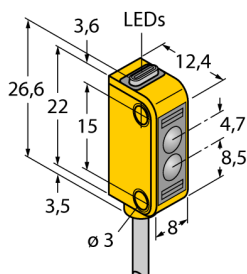


Photoelectric Sensor

Retroreflective Sensor with Polarizing Filter

Miniature Sensor

Q12AB6LP W/30



Type	Q12AB6LP W/30
ID	3072130

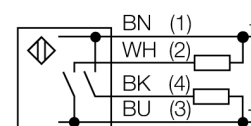
Optical data	
Function	Retroreflective Sensor
Operating mode	Polarized
Reflector included in delivery	no
Light type	Red polarized
Wavelength	640 nm
Range	100...1000 mm

Electrical data	
Operating voltage U_s	10...30 VDC
Residual ripple	< 10 % U_s
DC rated operating current I_s	≤ 50 mA
No-load current I_0	≤ 20 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 700 Hz
Readiness delay	≤ 120 ms
Response time typical	< 0.7 ms

Mechanical data	
Design	Rectangular, Q12
Housing material	Plastic, Thermoplastic material, Yellow
Lens	glass, Glass
Electrical connection	Cable, 9 m, PVC
Number of cores	3
Core cross-section	0.34 mm ²
Ambient temperature	-20...+55 °C
Protection class	IP67

- Cable, PVC, 9 m
- Protection class IP67
- LED all-round visible
- Indication of insufficient excess gain
- Glass lens
- Operating voltage: 10...30 VDC
- Switching output, bipolar, light operation

Wiring Diagram



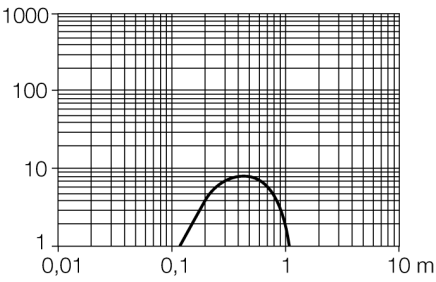
Functional principle

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

Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green
Excess gain indication	LED, yellow, flashing
Tests/approvals	
MTTF	135 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus



Accessories

Type code	Ident no.		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	

Function accessories

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