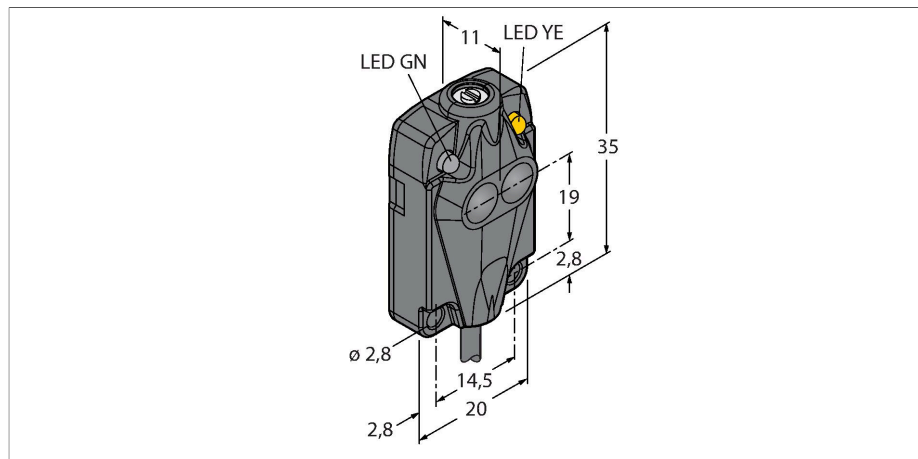


# Q10AP6D

## Photoelectric Sensor – Diffuse Mode Sensor

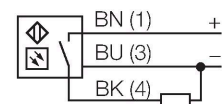
### Miniature Sensor



### Features

- Cable, 2 m
- Protection class IP67
- Glass lens
- Operating voltage: 10...30 VDC
- PNP/NPN switching output, light operation

### Wiring diagram



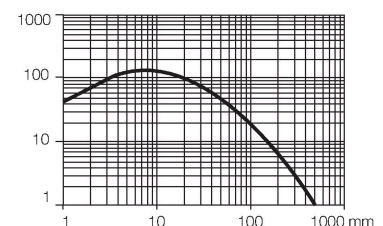
### Technical data

Type	Q10AP6D
ID no.	3044861
<b>Optical data</b>	
Function	Proximity switch
Operating mode	Diffuse
Light type	IR
Wavelength	880 nm
Range	1...500 mm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U <sub>ss</sub>
DC rated operational current	≤ 150 mA
No-load current	≤ 20 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	NO contact, light operation, PNP
Switching frequency	0.15 kHz
Readiness delay	≤ 0 ms
Response time typical	< 3 ms
Overcurrent release	> 220 mA
Setting option	Potentiometer
<b>Mechanical data</b>	
Design	Rectangular, Q10
Dimensions	35 x 20 x 10 mm
Housing material	Plastic, Thermoplastic material, Black
Lens	glass, Glass

### Functional principle

Like retroreflective sensors, diffuse mode sensors also contain emitter and receiver circuitry in the same housing. However, diffuse mode sensors do not detect the interruption of the light beam but the reflection of the object. An object is detected if it reflects sufficient light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the object's reflectivity.

Excess gain curve  
Excess gain in relation to distance



## Technical data

Electrical connection	Cable, 2 m, PVC
Number of cores	3
Core cross-section	0.8 mm <sup>2</sup>
Ambient temperature	-40...+70 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, green
Alarm display	LED yellow Flashing
Tests/approvals	