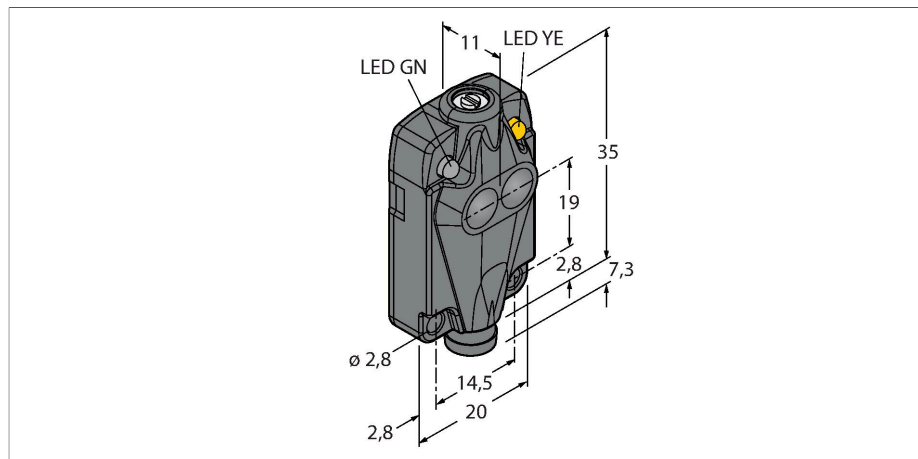


# Q10RP6DQ

## Photoelectric Sensor – Diffuse Mode Sensor

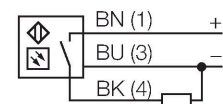
### Miniature Sensor



### Features

- Male connector, M8 × 1, 3-pin
- Protection class IP67
- Glass lens
- Operating voltage: 10...30 VDC
- PNP switching output, dark operation

### Wiring diagram



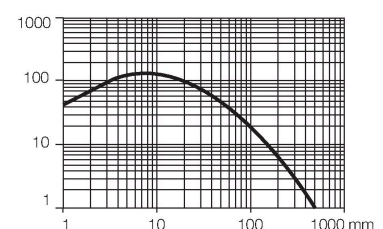
### Technical data

Type	Q10RP6DQ
ID no.	3044864
<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, dark 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	42.4 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

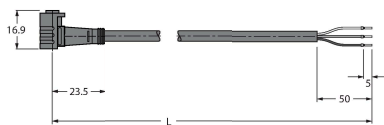


## Technical data

Electrical connection	Connectors, M8 × 1, PVC
Number of cores	3
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	

## Accessories

Dimension drawing	Type	ID no.
	PKW3Z-2/TEL	6627504



Connection cable, Ø 8 mm female, angled, 3-pin, snap-on with pull-off protection, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see [www.turck.com](http://www.turck.com)