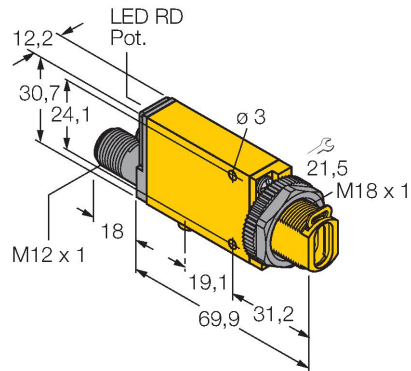


SM312FP1BQD

Photoelectric Sensor – Photoelectric Sensor for Plastic Fibers



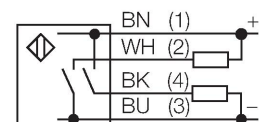
Technical data

Type	SM312FP1BQD
ID	3063635
Optical data	
Function	Fiber optic sensor
Operating mode	Plastic fiber
Fiber-optic type	plastic
Light type	Red
Wavelength	650 nm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 150 mA
No-load current	≤ 25 mA
Output function	NO contact, PNP/NPN
Switching frequency	≤ 500 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 220 mA
Mechanical data	
Design	Rectangular, Mini Beam
Dimensions	71.3 x 12.3 x 30.7 mm
Housing material	Plastic, PBT, Yellow
Electrical connection	Connector, M12 × 1
Ambient temperature	-20...+70 °C
Protection class	IP67
Switching state	LED, Red
Excess gain indication	LED, red, flashing

Features

- Male M12 × 1, 4-pin
- Protection class IP67
- Sensitivity adjusted via potentiometer
- Alignment indicator
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light/dark operation

Wiring diagram



Functional principle

Glass or plastic fibers are the optimum choice for high-temperature applications and limited spaces. Optical fibers transfer the light from the sensor to a remote object. Individual fibers are used for opposed sensing mode, whereas bifurcated fibers are suited for diffuse sensing mode.

Excess gain curve
Excess gain in relation to distance

