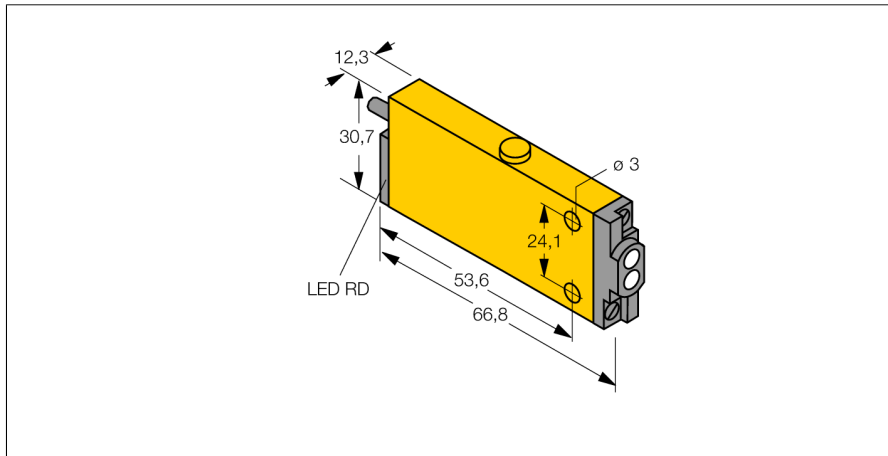


photoelectric sensor
diffuse mode sensor
SMU315D

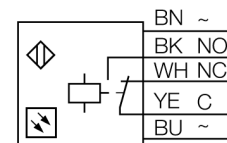
TURCK

Industrial
Automation



- Cable, PVC, 2 m
- Protection class IP67
- Sensitivity adjustable via potentiometer
- Alignment indicator
- Operating voltage: 24...240 VDC or 24...240 VAC
- Relay output

Wiring diagram



Type code	SMU315D
Ident no.	3052570

Operating mode	diffuse mode sensor
Light type	IR
Wavelength	880 nm
Range	0...380 mm
Ambient temperature	-20...+55 °C

Operating voltage	24...240VDC
Operating voltage	24...240 VAC
DC rated operational current	≤ 3000 mA
AC rated operational current	≤ 3000 mA
Output function	NO/NC , Relay output
Switching frequency	0.025 kHz
Switching frequency	≤ 25 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 220 mA
Max. DC switching capacity	1 W

Design	rectangular, Mini Beam
Dimensions	81 x 30.7 x 12.3 mm
Housing material	plastic, PBT, yellow
Lens	acrylic, acrylic
Connection	cable, PVC
Cable length	2 m
Cable cross section	5 x 0.5 mm ²
Protection class	IP67

Switching state	LED red
Excess gain indication	LED red flashing

Functional principle

Diffuse mode sensors incorporate the emitter and receiver in a single housing. However, diffuse mode sensors do not detect the interruption of the light beam like opposed mode sensors, but the reflection of the target. A target is detected if it reflects a sufficient amount of light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the reflectivity of the target.

Excess gain curve

Excess gain in relation to the distance

