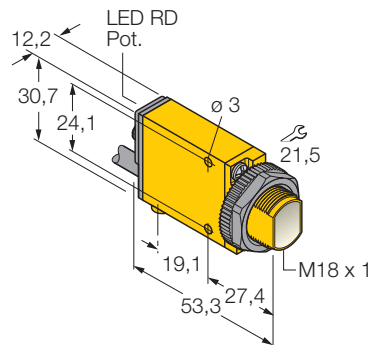


photoelectric sensor
diffuse mode sensor
SM312D

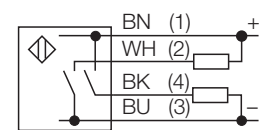
TURCK

Industrial
Automation



- compact housing style
- reverse polarity and short-circuit protection
- connection cable, 2 m
- Light/dark operation
- sensitivity adjustable via potentiometer
- alignment indication

Wiring diagram

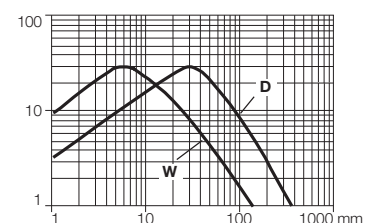


Functional principle

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



Type	SM312D
Ident-No.	3025619
Operating mode	diffuse mode sensor
Light type	IR
Wavelength	880 nm
Range	0... 380 mm
Ambient temperature	-20...+ 70°C
Operating voltage	10... 30 VDC
DC rated operational current	≤ 150 mA
No-load current I_0	≤ 25 mA
Output function	NO contact, pnp/npn
Switching frequency	≤ 500Hz
Readiness delay	≤ 100 ms
Overcurrent release	>220 mA
Housing	rectangular, Mini Beam
Dimensions	53.3x 12.3x 30.7mm
Housing material	Plastic, PBT
Lens	plastic, acrylic
Electrical connection	cables
Cable length	2 m
Cable cross section:	4 x 0.5mm ²
Protection class	IP67
Switching state	LED red
Excess gain indication	LED red flashing