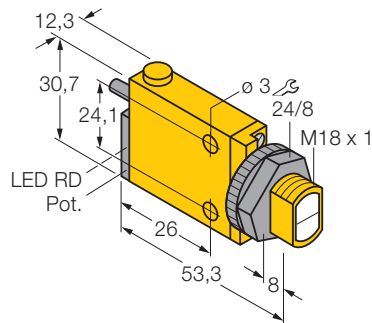
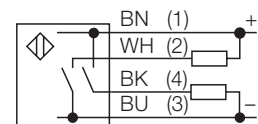


Photoelectric sensor diffuse mode sensor SM312D



- compact housing style
- Reverse polarity and short-circuit protection
- cable, 2 m
- light/dark operate
- sensitivity adjustable via potentiometer
- alignment indication

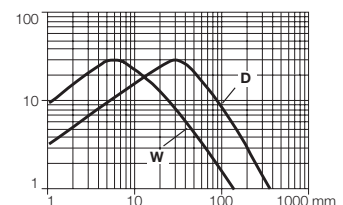
Wiring diagram



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.	3804900
Operating mode	Diffuse mode sensor
Type of light	IR
Wave length	880 nm
Sensing range [mm]	0... 380 mm
Operating temperature	-20 ...+ 70 °C
Rated operational voltage (DC) U_B	10... 30 VDC
Rated operational current (DC) I_B	≤ 150 mA
No-load current I_0	≤ 25 mA
Short-circuit protection	yes, cyclic
Reverse polarity protection	yes
Output function	normally open, PNP/NPN
Switching frequency	≤ 500 Hz
Max. switch-on delay	≤ 100 ms
Overload trip point	>220 mA
Housing style	rectangular; Mini Beam
Dimensions	53,3 x 12,3 x 30,7 mm
Housing material	plastic, PBT
Lens	Kunststoff, Acryl
Wiring	cable
Cable length	2 m
Cable cross section	4 x 0,5 mm ²
Degree of protection	IP67
Switching status indication	LED red
Excess gain indication	LED red flashing