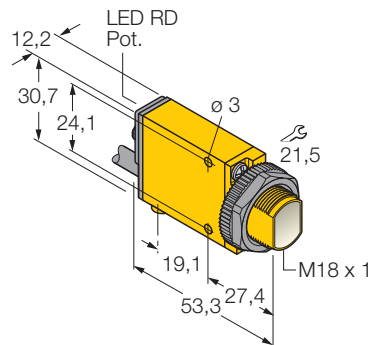


**photoelectric sensor
emitter
SM31E**

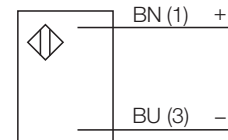
TURCK

Industrial
Automation



- compact housing style
- reverse polarity and short-circuit protection
- connection cable, 2 m

Wiring diagram

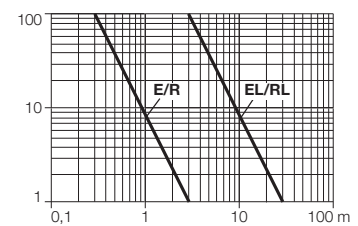


Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions.

Excess gain curve

Excess gain in relation to the distance



Type	SM31E
Ident-No.	3025623
Operating mode	opposed mode sensor (emitter)
Light type	IR
Wavelength	880 nm
Range	0... 3000 mm
Ambient temperature	-20...+ 70°C
Operating voltage	10... 30 VDC
No-load current I_0	≤ 25 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:	2 x 0.5mm ²
Protection class	IP67