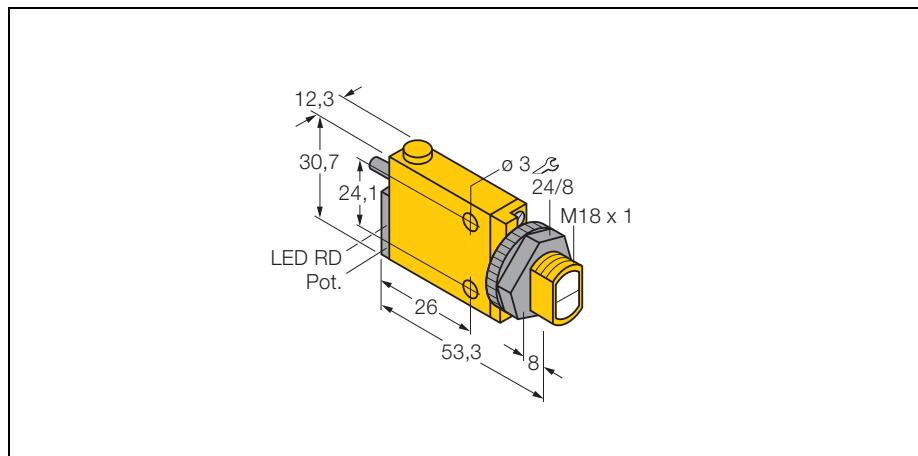


Photoelectric sensor

emitter

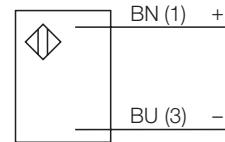
SM31EL



Type	SM31EL
Ident-No.	3800500
Operating mode	Opposed mode (emitter)
Type of light	IR
Wave length	880 nm
Max. sensing range [m]	0... 30 m
Operating temperature	-20 ...+ 70 °C
Rated operational voltage (DC) U_B	10... 30 VDC
No-load current I_0	≤ 25 mA
Short-circuit protection	yes, cyclic
Reverse polarity protection	yes
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	2 x 0,5 mm ²
Degree of protection	IP67

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

Wiring diagram



Opposed mode sensors consist of a separate emitter and receiver. These are installed directly 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

