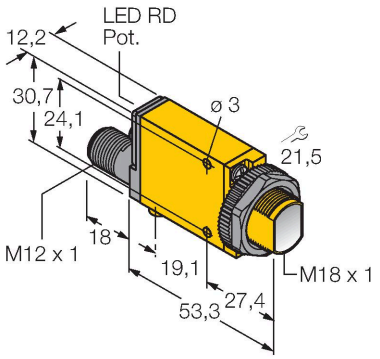
ROPL2M-MI-UNP6X-H1141
Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter



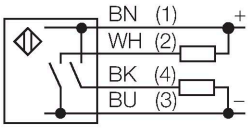
Technical data

Type	ROPL2M-MI-UNP6X-H1141
ID	7700529
Function	Retroreflective sensor with polarizing filter
Light type	Red
Wavelength	650 nm
Range	0…3000 mm
Operating voltage	10…30 VDC
Residual ripple	< 10 % U_{ss}
DC rated operational current	≤ 150 mA
No-load current	≤ 25 mA
Output function	NO contact, PNP/NPN
Switching frequency	≤ 500 Hz
Overcurrent release	> 220 mA
Design	Rectangular, Mini Beam
Dimensions	71.3 x 12.3 x 30.7 mm
Housing material	Plastic, PBT, Yellow
Lens	plastic, Acryl
Electrical connection	Connector, M12 × 1
Ambient temperature	-20…+70 °C
Protection class	IP67
Switching state	LED, Red
Excess gain indication	LED, red, flashing

Features

- Male, M12 x 1, 4-pin
- Protection class IP67
- Sensitivity adjusted via potentiometer
- Alignment indicator
- Operating voltage: 10…30 VDC
- Switching output, bipolar
- Light/dark operation

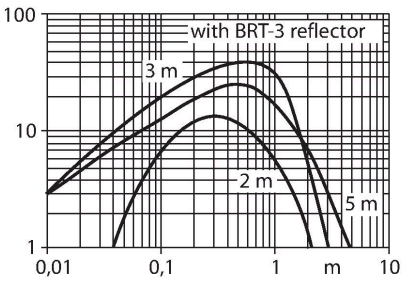
Wiring diagram



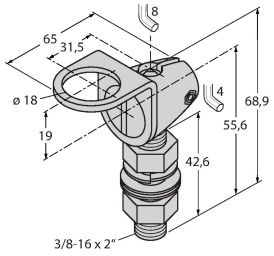
Functional principle

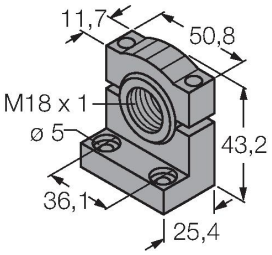
Retroreflective sensors have emitter and receiver incorporated in the same housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. A target is captured when it interrupts this beam. Retroreflective sensors feature some of the advantages of opposed mode sensors, such as good contrast and high excess gain. Furthermore, only one device has to be installed and wired. Devices without polarizing filter have a smaller sensing range and are more susceptible to disturbances caused by shiny objects.

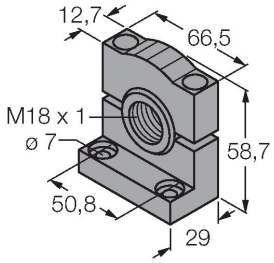
Excess gain curve
Excess gain in relation to distance

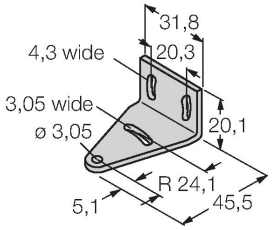


Accessories

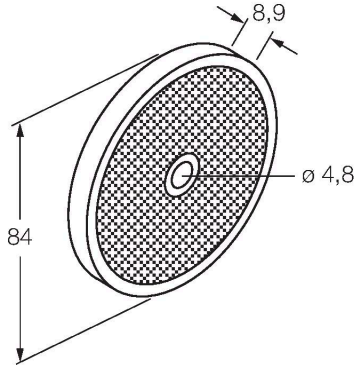
TMBM18FA	7700395
	Mounting bracket; material VA 1.4401, for 18 mm thread

TMB18SF	7700396
	Mounting bracket, PBT black, for 10 mm thread

TMB3018SC	7700397
	Mounting bracket, PBT black, for 18 mm thread

TMBMIS	7700401
	Mounting bracket, stainless steel, for BT18/BQ18 and ..-MI-..

Accessories

Dimension drawing	Type	ID	
	T-BRT-3	7700369	Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20 … +60 °C