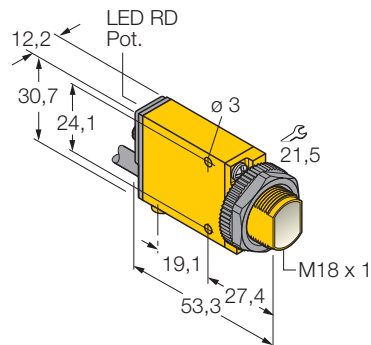


photoelectric sensor

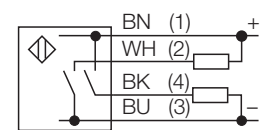
retro-reflective sensor with polarisation filter

SM312LP



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

Wiring diagram

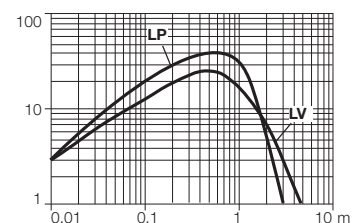


Functional principle

Retro-reflective sensors incorporate emitter and receiver in a single compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors incorporate some of the advantages of opposed mode sensors (good contrast and high excess gain). Further it is merely required to install and wire a single device. A smaller sensing range and susceptibility of devices without polarisation filter can be of disadvantage when shiny objects have to be detected.

Excess gain curve

Excess gain in relation to the distance



Type	SM312LP
Ident-No.	3049769
Operating mode	retro-reflective sensor with polarisation filter
Light type	red
Wavelength	650 nm
Range	0... 3000 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