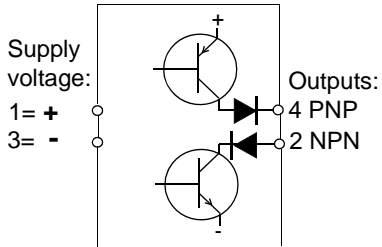
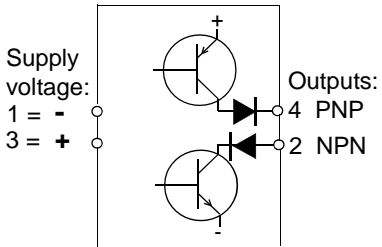
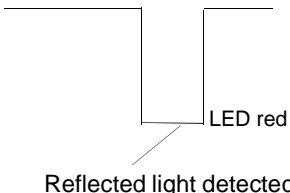
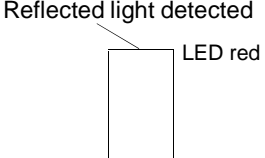
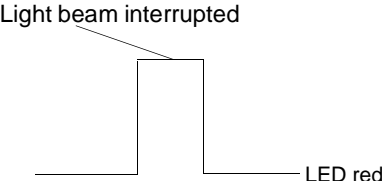
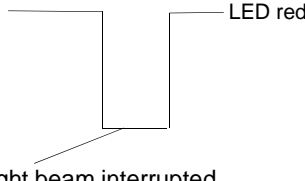


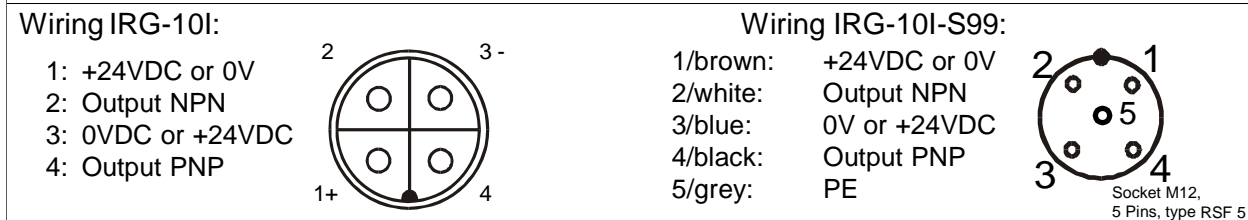
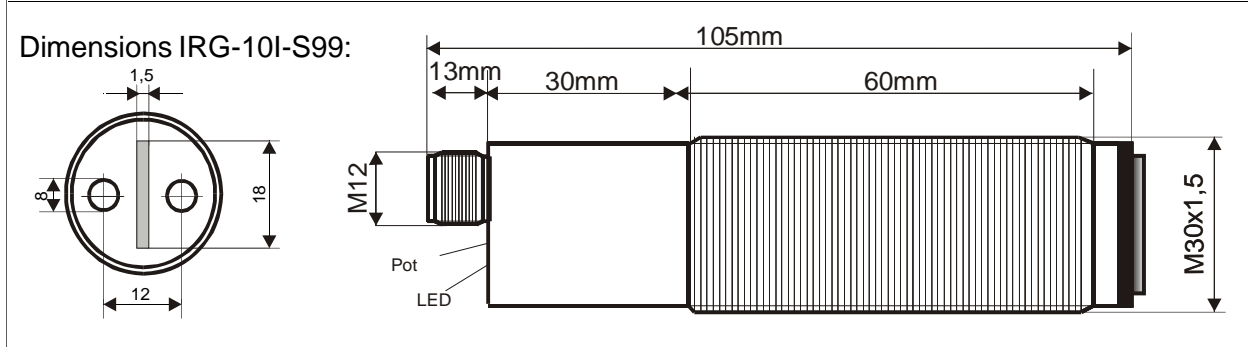
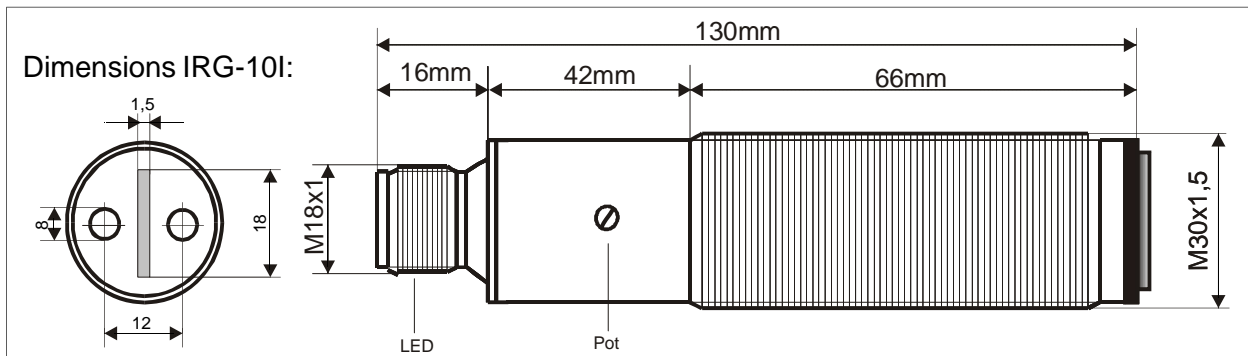
Original operating manual: Photoelectric proximity switch

IRG-10I / IRG-10I-S99



- Robust sensor for industrial applications with long range
- Adjustable by potentiometer
- Also for using with different types of fibre optics

Type	IRG-10I / IRG-10I-S99	
Technical Data		
Operating distance	1000mm, adjustable on white paper (80g) 20x30cm)	
Supply voltage	24VDC +-15%	
Current consumption	50mA	
Max. power dissipation	1.4W	
Light source	870nm, infrared	
Outputs	1 x PNP and 1 x NPN, short circuit protected	
Maximum output load	100mA	
Housing	M30, Yellow brass, nickel plated	
Switching frequency	100Hz (optional up to 1kHz)	
Optional time functions	On request: Different delay functions integrated	
Hysteresis: Axial direction	approx. 10% of operating distance	
Hysteresis: Radial direction	approx. 2% of operating distance	
Ambient temperature range	-20°C < T _{amb} < +50°C	
Enclosure rating	IP65, according to EN 60529	
Socket, standard	Socket M18, Binder series 714, 4 terminals	
Socket, IRG-10I-S99	Socket M12, Lumberg type RSF 5, 5 terminals	
Accessories, included	- 2 nuts M30 or 1 Clamp (optional)	
Accessories, not included	- M18, connector housings, Binder No. 09-0440-10-04 (straight), or No.09-0440-00-04 (right angle)	
Accessories, not included only IRG-10I-S99	- Cord set M12, Lumberg TYPE RKTS 5-298/xx (straight) or RKWTH 5-298/xx (right angle)	
Options	- IRG-10I-S99: With socket (male) M12, Lumberg type RSF 5, 5 pins	
Function and outputs:	Connection: 1 = +24VDC / 3 = 0V 	Connection: 1 = 0V / 3 = +24VDC 
Function proximity switch:		
Function light barrier:		



Operating Manual / EC - Declaration of Conformity:

General mounting prescriptions

The electrical connections must be exactly as shown in the connection diagram. The cable shield must be connected short. The cable shield should be connected to PE. Connection cables must not be installed parallel to high voltage cables. Do not exceed the maximum ratings.

Function

The sensors type IRG-10I(-S99) works basically as proximity switch on diffuse optical reflections. The sensor is well applicable with different types of fibre optics. The range can be adjusted by the potentiometer. The sensor has an PNP and a NPN output. Both outputs together can be used as a push-pull type output. If the sensor detects reflected light, the LED shows red and the output switches on 0V. If no reflected light will be recognized, the output switches to +24VDC. The push-pull output allows to connect the load to +24VDC or 0V. By changing the polarity of the supply voltage, the output function will be inverted. The indication LED shows red, independent of the polarity of the supply voltage when the sensor detects light.

Output function: See page 1 of the operating manual.

Maintenance

Protect the sensor and the optional fibre optics against pollution. If the fibre optics or the sensor lenses are contaminated, clean with alcohol. Do not use aggressive solvents. Optical fibres can be destroyed by strong solvents. Equipment must only be repaired or serviced by the manufacturer.

Fibre optics

For efficiently detection solutions look for our multiple program of fibre optics, also for high temperature areas.

Safety Informations

The sensors types IRG-10I(-S99) must not be used for Accident-Prevention! In worst case of disturbance, the output can show any state. When installing and operating with the sensor, it is necessary to take into consideration the relevant international and other national regulations.

The sensors are conform to the following standards and directives:

EN 61000-6-1/-2, EN 61000-6-3/4, EN 60529,
Machine directive: 2006/42/EC, EMC directive:
2014/30/EU, RoHS directive: 2011/65/EU

General Notes, disposal

We reserve the right to modify our equipment. Our equipment is designed such way, that it has the least possible adverse effect on the environment. It neither emit or contain any damaging or siliconized substances and use a minimum of energy and resources. No longer usable or irreparable units must be disposed of in accordance with local waste disposal regulations.

EC-Declaration of Conformity

The conformity of the devices with the EC standards and directives and the EC-type examination certificate and the observation of the Quality Safety System ISO 9001:2008 with the ATEX module "Production", declares:

Hans Bracher, Matrix Elektronik AG

IRG-10I_et11/2017-09-28/HB

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