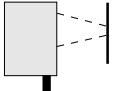
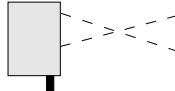
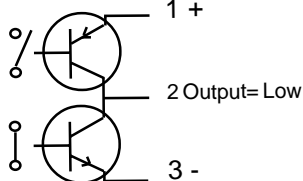
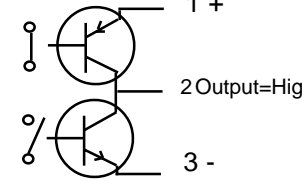
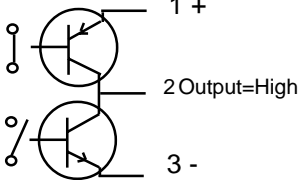
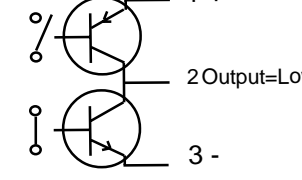
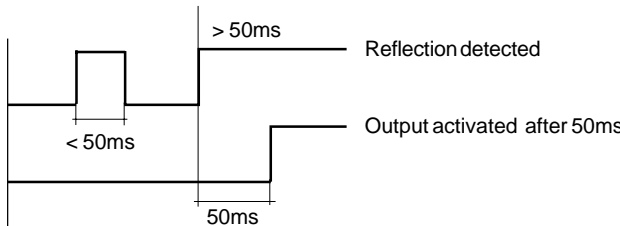


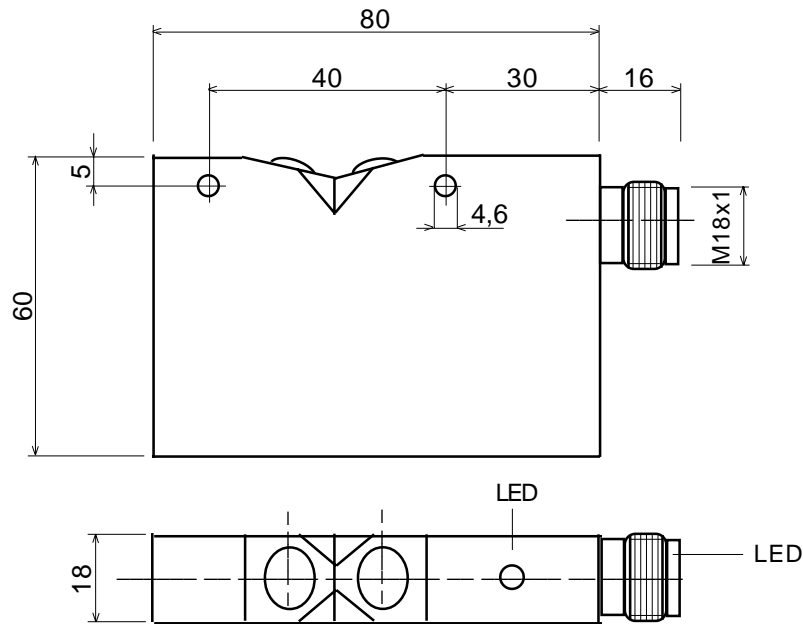
Photoelectric Proximity Switch IRF-1X / S59



- 50ms rise time delay
- applicable for glass surface detection

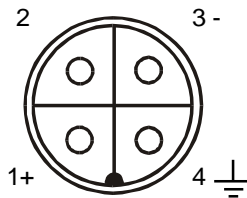
Type	IRF-1X / S59	
Technical Data		
Range	100mm	
Supply voltage	12-28 VDC	
Current consumption	55mA	
Power dissipation	1.54W	
Output	Push-Pull, maximum 100mA, short circuit protected	
Response time	500us	
Hysteresis: axial	appr. 10% of maximum range	
Hysteresis: radial	appr. 2% of maximum range	
Operating temperature TA	-20°C < TA < +50°C	
Housing	Zinc die casting with Aluminum-cover	
Housing color	yellow and blue	
Protection rating	IP65 at EN 60529	
Connection	Connector, M18	
Accessories	---	
Option	---	
Function and LED indication	 <p>Diffuse reflected light detected LED, inside connector, shows red, green LED in the housing extinguished</p>	 <p>No reflection detected red LED, inside connector, extinguished, LED in the housing shows green</p>
Function at standard connection of the supply voltage: 1 + 2 Output 3 -	 <p>1 + 2 Output= Low 3 -</p>	 <p>1 + 2 Output=High 3 -</p>
Function at reversing connection of the supply voltage: 1 - 2 Output 3 +	 <p>1 + 2 Output=High 3 -</p>	 <p>1 + 2 Output=Lows 3 -</p>
X-Function: Inversely connection of the supply voltage = inversely output function		
Switching diagram:	 <p>> 50ms Reflection detected < 50ms 50ms Output activated after 50ms</p>	

Dimensions:



Connection layout:

- 1 +
- 2 Output
- 3 -
- 4 Protection earth



Operating Manual / EC - Declaration of Conformity:

General mounting prescriptions:

Do not exceed the maximum ratings. 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 or 0V(-) of the supply voltage. Connection cables must not be installed parallel to high voltage cables.

Function

The sensor works basically as proximity switch on diffuse optical reflections. If the sensor detects reflected light, the LED, inside the connector, shows red, the green LED in the housing is extinguished and after a delay time of 50ms, the output switches on +24VDC or 0V (dependent of the polarity of the supply voltage). If no reflected light will be recognized, the red LED, inside the connector extinguished, the LED in the housing shows green and the output switches immediately to 0V or +24VDC (dependent of the polarity of the supply voltage). The push-pull output allows to connect the load to +24VDC or 0V. The function of the LED's is not influenced by the polarity of the supply voltage.

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.

Safety Informations

The sensors type IRF-.. must not be used for Accident-Prevention! When installing and operating with the sensor, it is necessary to take into consideration the relevant international and other national regulations.

Standards met:

- EN 50081-1/-2, EN 50082-1/-2,
- Machine directive: 98/37/EG
- Low voltage directive: 73/23/EWG, 93/68/EWG
- EMC: 89/336/EWG, 91/263/EWG, 92/31/EWG, 93/68/EWG

General Notes

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 silicized 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.

The conformity of the devices with the EC standards and directives and the observation of the Quality Safety System ISO 9001 declares:

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