



Model number

Art.No. 109-0010

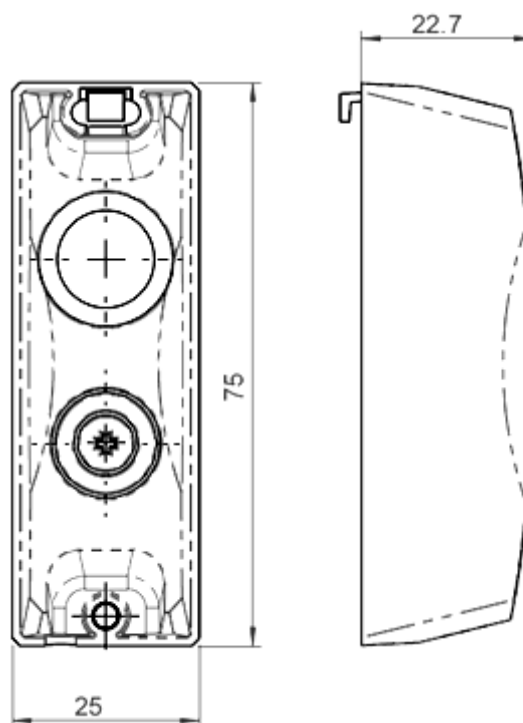
TLS-10

Thru-beam sensor with fixed cable for gates

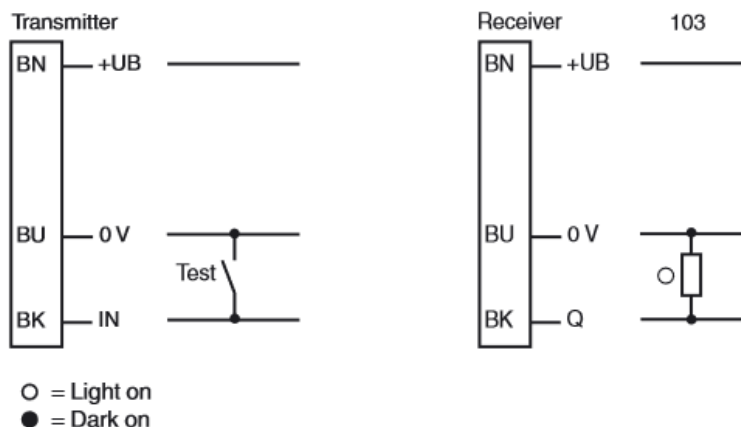
Features

- Single-beam miniature photoelectric sensor, ideal for mounting in door frame
- integrated circuit
- Narrow opening angle
- Insensitivity towards extraneous light
- Light on version
- Version with test input

Dimensions



Electrical connection



Technical data

General specifications

Effective detection range	0... 6 m
Threshold detection range	8 m
Light source	IREL
Light type	modulated infrared light, 880 nm
Diameter of the light spot	approx 1300 mm at 6 m
Angle of divergence	Transmitter: $\pm 8^\circ$ Receiver: $\pm 10^\circ$
Light output	frontal
Ambient light limit	halogen light 100000 Lux

Electrical specifications

Operating voltage	10 ... 30 VDC
No-load supply current	Transmitter: ≤ 20 mA Receiver: ≤ 10 mA

Input

Test input	Transmitter deactivation at 0 V
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Output

Switch type	light on
Signal output	1 PNP output, short-circuit protected
Switching voltage	max. 30 VDC
Switching current	max. 100 mA
Voltage drop	$\leq 1,5$ VDC
Switching frequency	62,5 Hz
Response time	8 ms

Ambiental conditions

Ambient temperature	$-20^\circ \dots 60^\circ\text{C}$
Relative Humidity	90%, non-condensing

Mechanical specifications

Protection class	IP67 (sensors)
Connection	Fixed cable 40 mm

Material

Housing	PA, PF, PC black
Weight	approx 40g
Dimensions	75x25x22,7 mm

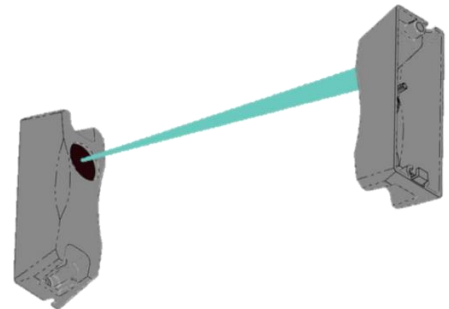
Compliance with standards and directives

EMC Directive 2004/108/EG	EN 60947-5-2:2007
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

Typical applications

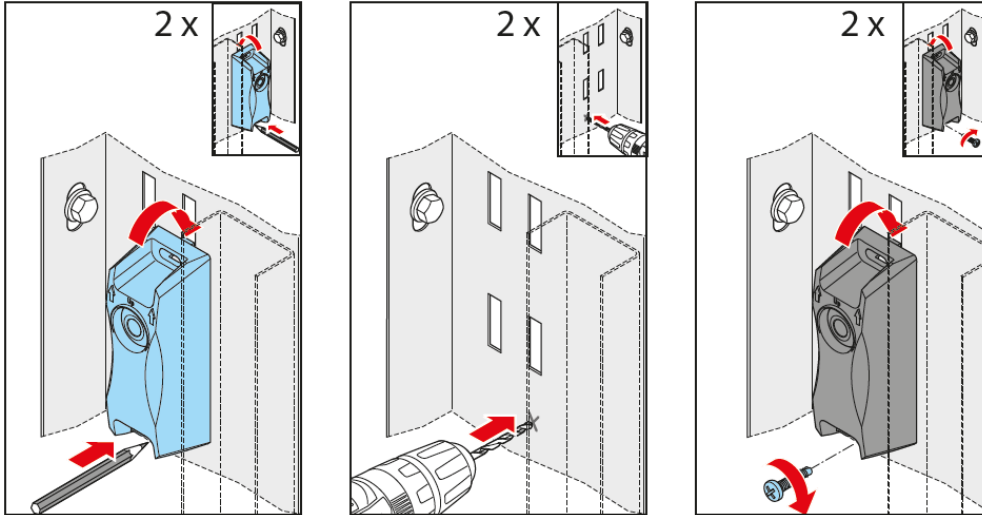
- Protection of industrial doors
- Passenger and vehicle detection for automatic doors and gates

Detection field

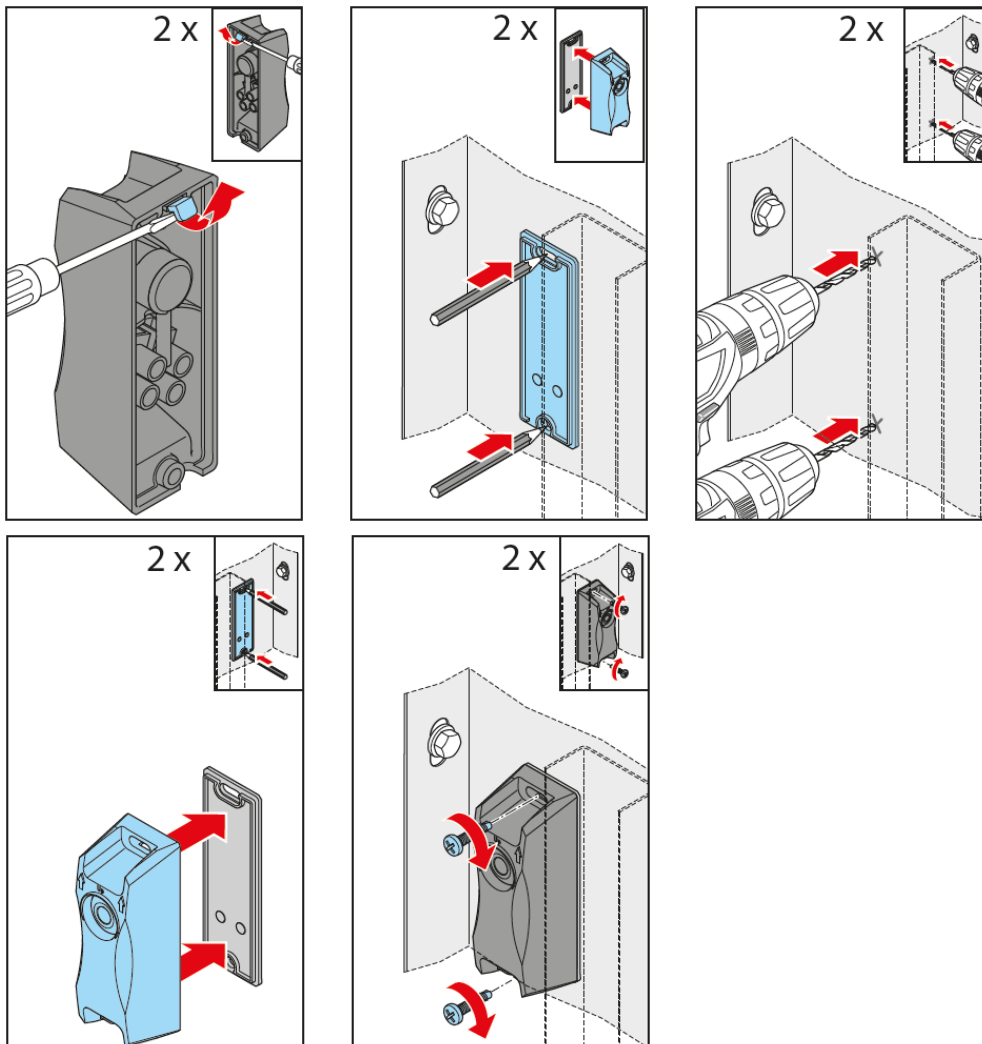


Mounting options

Option 1

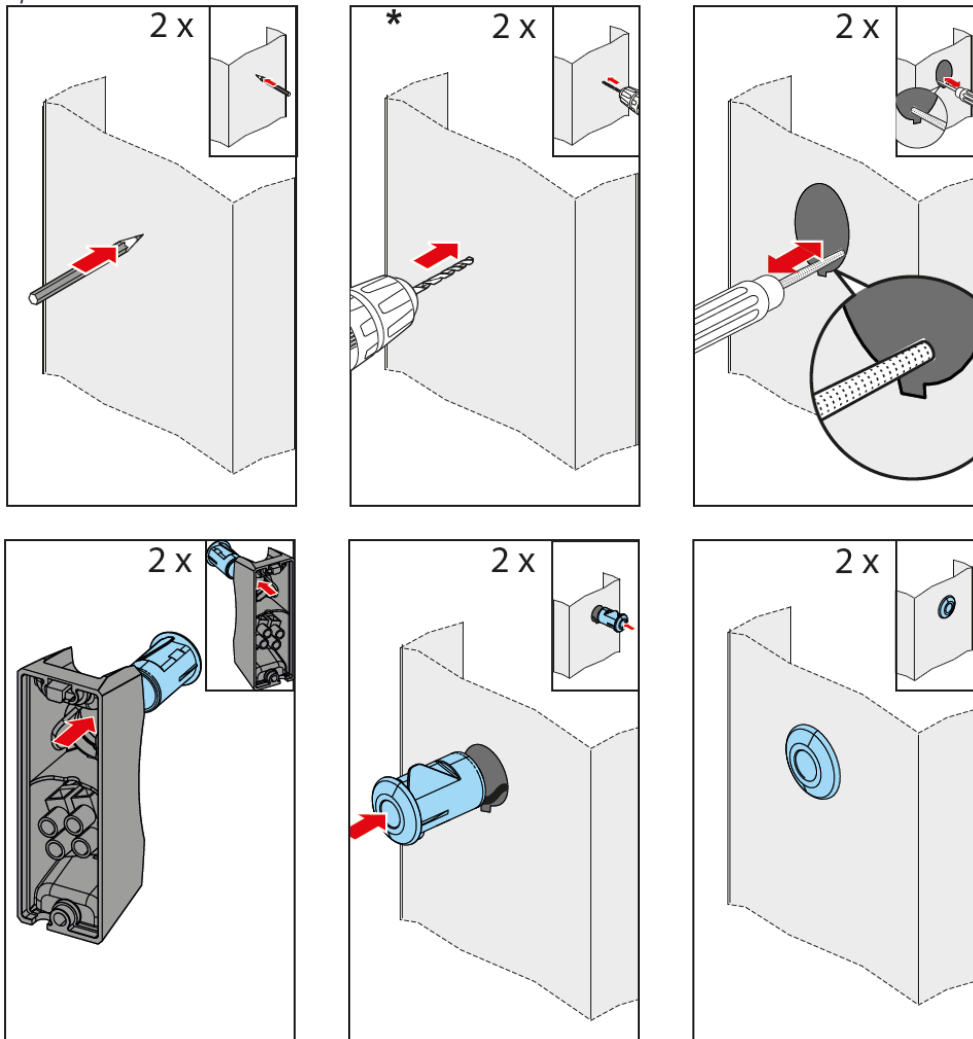


Option 2



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Option 3

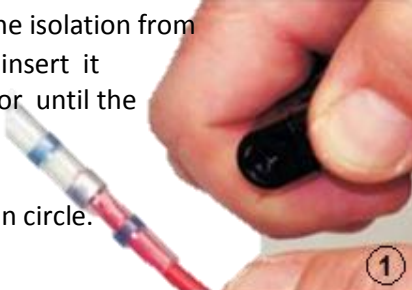


*For sheet thickness of 1mm, you need a hole diameter of 13mm

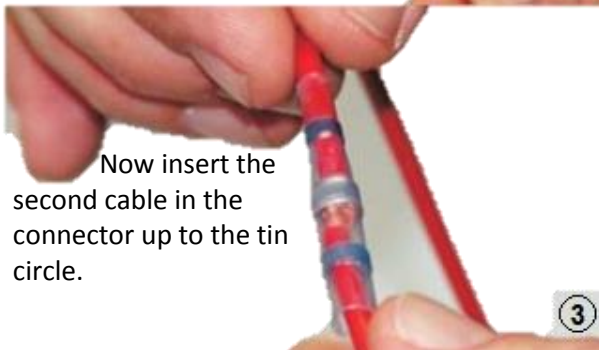
For sheet thickness of 2mm and 3mm, hole diameter should be 13-13,5mm

Instructions Solder connector – Accessories included

First remove the isolation from the cable, and insert it in the connector until the part without isolation is between the tin circle.

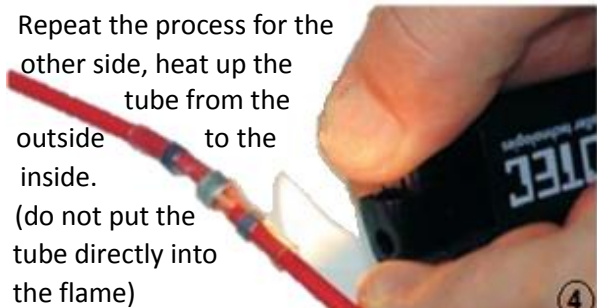


Start heating up the shrink tube from the outside to the inside. Rotate the cable slowly to heat it uniformly.

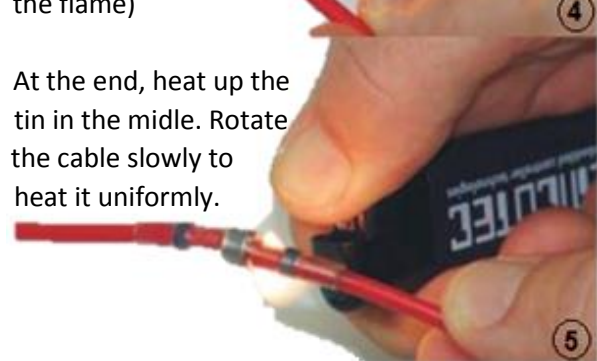


Now insert the second cable in the connector up to the tin circle.

Repeat the process for the other side, heat up the tube from the outside to the inside. (do not put the tube directly into the flame)



At the end, heat up the tin in the middle. Rotate the cable slowly to heat it uniformly.



CAUTION:the flame from the lighter reaches 1200° C!



Do not put the cable directly into the flame, otherwise you may damage the shrink tube.

The solder connectors consist of heat-resistant shrink tube with integrated glue. A special alloy allows the soldering of the cable with a simple lighter.