

## INCHR/0B-00

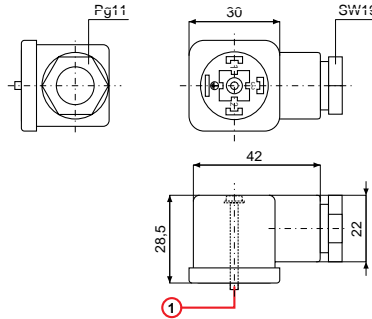
DIN 43650 connector



applications on:

safety

Dimensions



Description / Installation

Din 43650 standard female connector for use with sensors with Y-cable output. It is composed of a connector cover and a terminal board to which the wires of the cable to be connected are attached (Ø 8mm max). In the middle of the connector there is a screw (1) used to fasten the connector to the sensor tightly.

## INCL12/0B-00A

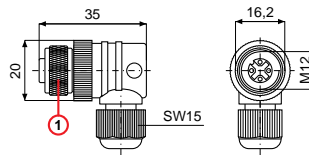
Axial connector without cable



applications on:

sensors with M12 connectors

Dimensions



Description / Installation

M12 4-pole axial connector with terminals. Only the connector is supplied for complete fitting and connection to a 4 wire cable (Ø 3,0... Ø6,5mm). It has a threaded ring-nut M12 (1) on its end, which serves to screw it tightly to the sensor.

## INCL12/0B-00C

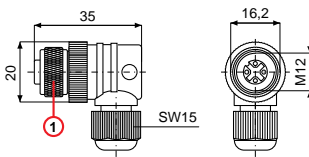
Right angle connector without cable



applications on:

sensors with M12 connectors

Dimensions



Description / Installation

M12 4-pole, right angle connector with terminals. Only the connector is supplied for complete fitting and connection to a 4 wire cable (Ø 3,0... Ø6,5mm). It has a threaded ring-nut M12 (1) on its end which serves to screw it tightly to the sensor.

## INCSK/07-01

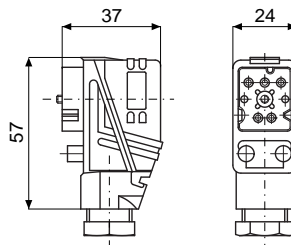
Rectangular connector



applications on:

safety

Dimensions



Description / Installation

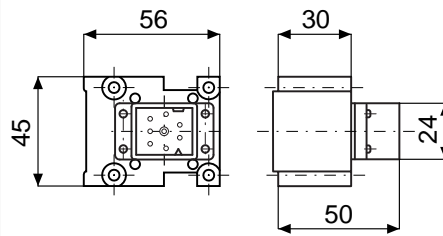
6-pole, + ground Hirschmann connector with terminals to be used on INSBA serie safety light curtains with W type connector output.

## INSBAL/01

Cover with connector



Dimensions



Description / Installation

Cover with rectangular male connector which can be used to transform the INSBA safety light curtain with PG11 glad entry (P type) core hitch into the model with the 6-pole + ground Hirschmann output (W type).

applications on:

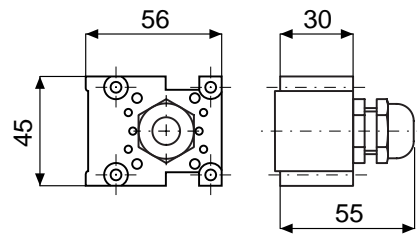
safety

## INSBAL/02

Cover with connector



Dimensions



Description / Installation

Cover with PG11 connector which can be used to transform the INSBA safety light curtain with connector output (W type) into the model with PG11 (P type) glad entry output.

An internal female terminal connector is included in the kit for connection to the cable.

applications on:

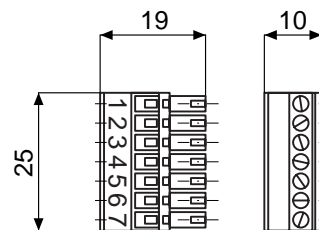
safety

## INSBAL/03

Female terminal connector



Dimensions



Description / Installation

Internal female terminal connector to be used for electric connections to the INSBA safety light curtains. Supplied as spare part.

applications on:

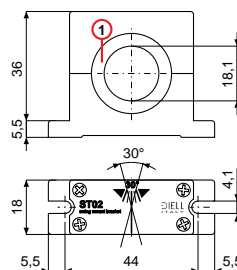
safety

## IN02

Ø18mm swing bracket



Dimensions



Description / Installation

This is a plastic mounting bracket for M18 sensors which has a ball joint (1) for easy orientation in all directions and for locking the sensors in position. Fasten the bracket to the support plane using two M4 screws, fit and lock the sensor using the supplied ring-nuts. Make sure that the front part protrudes as little as possible. Carry-out the adjustment procedure and tighten down the 4 screws on the head of the support. Use the special IN29 ring-nut for fitting M18 metal sensors.

applications on:

Ø18mm sensors

## IN13

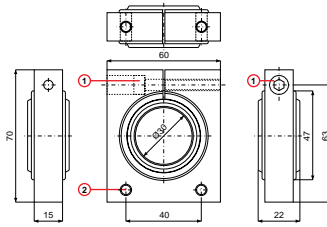
Ø30mm swing bracket



applications on:

Ø30mm sensors

Dimensions



Description / Installation

This is an aluminium mounting bracket for sensors which has a ball joint for easy orientation in all directions and for locking the sensors in position. The bracket can be fastened either onto a support plane, using the M6 screws (2) which must be inserted from underneath the plane, or into the wall. Fit and lock the sensor using the supplied ring-nuts, making sure the upper part protrudes as little as possible. Carry-out the adjustment procedure and tighten down the screw (1).

## IN14

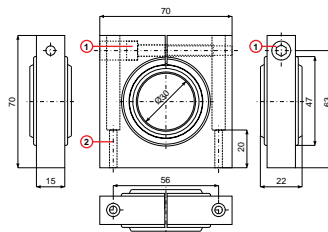
Ø30mm swing bracket



applications on:

Ø30mm sensors

Dimensions



Description / Installation

This is an aluminium mounting bracket for sensors which has a ball joint for easy orientation in all directions and for locking the sensors in position. The bracket can be fastened to a support plane using the M6 screws (2,) which must be inserted from the upper side. Fit and lock the sensor using the supplied ring-nuts. Make sure the upper part protrudes as little as possible. Carry-out the adjustment procedure and tighten down the screw (1).

## IN18-A

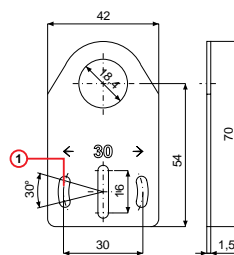
Axial mounting bracket



applications on:

Ø18mm sensors

Dimensions



Description / Installation

This is a flat, metal mounting bracket with a Ø18 hole for fitting the sensor and two slots for the M4 (1) screws. It allows the shifting of the optical axis. Fasten the bracket using the two M4 screws, without tightening them. Fit the sensor and lock it using the supplied ring-nuts. Carry-out the adjustment procedure and tighten the M4 screws.

## IN18-C

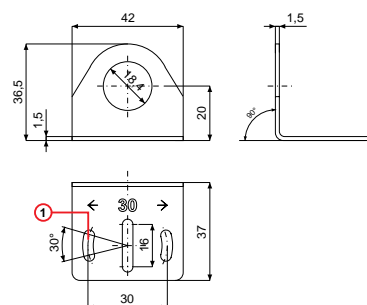
Right angle mounting bracket



applications on:

Ø18mm sensors

Dimensions



Description / Installation

This is a metal angular mounting bracket with a Ø 18 hole for fitting the sensor and the two slots for the M4 screws. It allows the rotation of an optical axis. Fasten the bracket using two M4 screws without tightening them, fit the sensor and lock it using the supplied ring-nuts. Carry-out the adjustment procedure and tighten the M4 screws.

## IN30-A

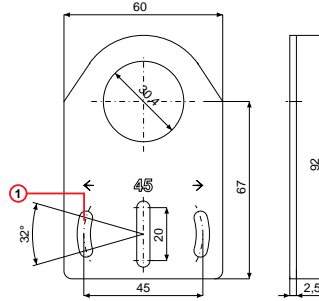
### Axial mounting bracket



applications on:

Ø30mm sensors

### Dimensions



### Description / Installation

This is a flat, metal mounting bracket with a Ø 30 hole for fitting the sensor and the two slots for the M3 screws. It allows the shifting of an optical axis. Fasten the bracket using two M5 screws without tightening them, fit the sensor and lock it using the supplied ring-nuts. Carry-out the adjustment procedure and tighten the M5 screws.

## IN30-C

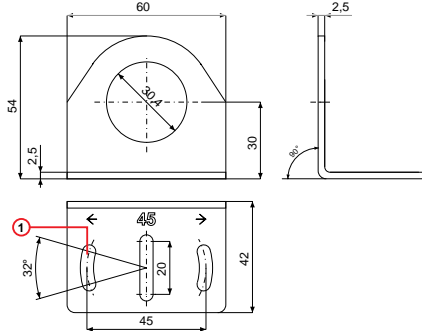
### Right angle mounting bracket



applications on:

Ø30mm sensors

### Dimensions



### Description / Installation

This is a metal angular mounting bracket with a Ø 30 hole for fitting the sensor and the two slots for the M3 screws. It allows the rotation of an optical axis.

Fasten the bracket using two M5 screws without tightening them, fit the sensor and lock it using the supplied ring-nuts. Carry-out the adjustment procedure and tighten the M5 screws.

## INA00

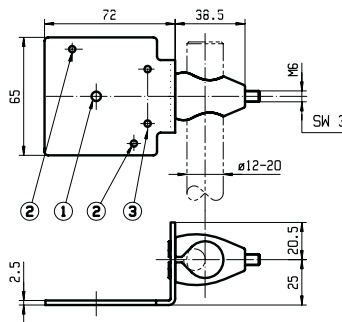
### Mounting bracket for sensors



applications on:

OX 110  
OX 116  
OX113G

### Dimensions



### Description / Installation

It is a bracket mounting on a bar of 12...20mm, that allows the radial rotation of the optical axis on two orthogonal planes. Provides the widest adjusting range, making easier the alignment operations. Fix the reflector RL 110 to the hole (1), using the M5 screw and nut. Fix the reflector RL 116 to the holes (2), using two M3 screws and nuts. Fix the reflector RL 113G to the holes (3), using two M3 screws and nuts. The screws and the nuts are supplied. Hook up the bracket to the terminal and position onto the bar. Screw the dowel without tighten. Perform the adjustments and strongly turn the dowel.

## IN18

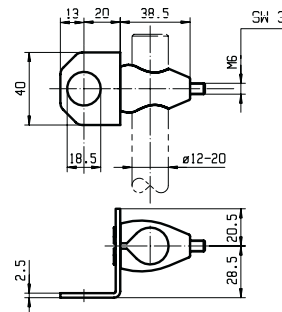
### Mounting bracket for retro-reflective sensors



applications on:

Ø18mm sensors

### Dimensions



### Description / Installation

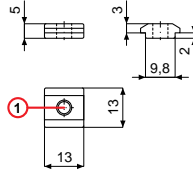
It is a bracket mounting on a bar of 12...20mm, that allows the radial rotation of the optical axis on two orthogonal planes. Provides the widest adjusting range, making easier the alignment operations. Fix the sensor M18 to the bracket. Hook up the bracket to the terminal and position onto the bar. Screw the dowel without tighten. Perform the adjustments and strongly turn the dowel.

## IN200

### Fastening nuts



### Dimensions



### Description / Installation

Kit of four nuts for fastening the INSBF, INSBG and INSBA serie safety light curtains to be used with IN201, IN202, IN203 and IN204 accessories.

The special "T" shape allows the nut to be fitted into and slide onto the specific notches on the sides of the safety light curtain.

applications on:

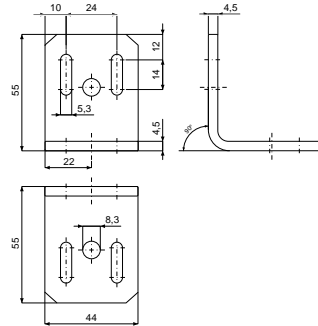
safety

## IN201

### Mounting brackets



### Dimensions



### Description / Installation

Kit of four angular mounting brackets and eight M5 screws with washers, for fastening the INSBA serie safety light curtains.

Fasten the bracket to the sensor using the 2 M5 screws with 2 IN200 nuts. Fasten the bracket to the support using 2 M5 screws. Carry-out the adjustment procedure and tighten all the screws.

applications on:

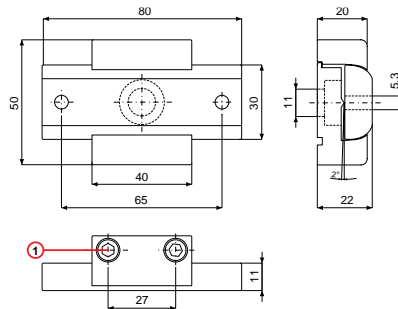
safety

## IN202

### Mounting swing bracket



### Dimensions



### Description / Installation

Kit of four mounting swing brackets and eight screws for fitting the INSBA series safety light curtains. It allows the sensor to rotate around its axis by + 2°. Loosen the side screws to extract the central body and fasten it to the safety light curtain using 2 M5 screws and 2 IN200 nuts. Fasten the outer body of the bracket to the support through the Ø 11mm hole, positioned in the middle of the object's backside. Place the central body fastened to the through-beam on its seat once again. Carry-out the adjustment procedure and tighten the side screws.

applications on:

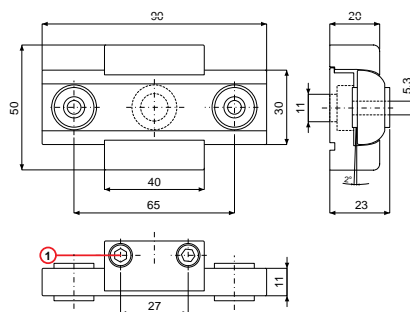
safety

## IN203

### Mounting swing bracket



### Dimensions



### Description / Installation

Kit of four mounting swing brackets with shock absorbers and eight screws for fitting the INSBA series safety light curtains. It allows the sensor to rotate around its axis by + 2°. Loosen the side screws to extract the central body and fasten it to the safety light curtain using 2 M5 screws and 2 ST200 nuts. Fasten the outer body of the bracket to the support through the Ø 11mm hole, positioned in the middle of the object's backside. Place the central body fastened to the through beam on its seat once again. Carry-out the adjustment procedure and lock the side screws.

applications on:

safety



## IN03

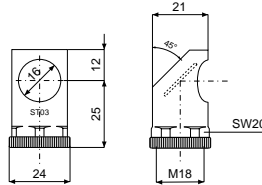
### M18 Right angle beam adapter



applications on:

Ø18mm sensors

### Dimensions



### Description / Installation

This allows a detection at 90° with respect to the optical axis of the photocell for the M18 sensor. It consists of an internally threaded body to be screwed onto the optical head of the sensor and a mirror inside the body which is set at 45° in respect of the axis. This allows detection at 90°. The range loss is approx. 20-30%.

## IN30

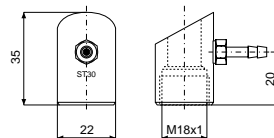
### M18 Anti-dust front



applications on:

Ø18mm sensors

### Dimensions



### Description / Installation

This is an accessory in black anodised-aluminium to be screwed on the sensor head and has a side inlet pipe to be fed with clean compressed air. On models which do not feature a narrow beam, this accessory causes a range loss of equal to 30%. The front must be screwed on the sensor head and it can be used, in place of a ring-nut, for locking the sensor.

## IN50

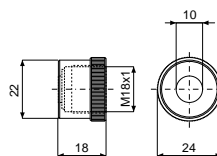
### M18 protection front



applications on:

Ø18mm sensors

### Dimensions



### Description / Installation

This accessory consists of a black anodised aluminium body, an O ring and a protection glass, and it must be screwed on the sensor head. This makes it suitable for work places where chemical solvents are used. It causes a range loss equal to 25%. Before screwing the accessory onto the sensor, first position the O ring and the glass (incorrect positioning could cause the glass to break).

## IN55

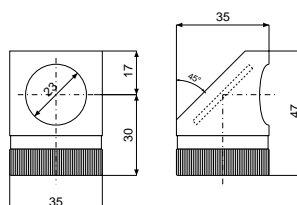
### M30 Right angle beam adapter



applications on:

Ø30mm sensors

### Dimensions



### Description / Installation

This allows a detection at 90° with respect to the optical axis of the photocell for the M30 sensors. It consists of an internally threaded body to be screwed onto the optical head of the sensor and a mirror inside the body which is set at 45° in respect of the axis. This allows detection at 90°. The range loss is approx. 20-30%.



## INHK

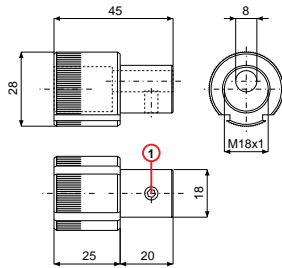
### Mechanical shutter



applications on:

Ø18mm sensors

### Dimensions

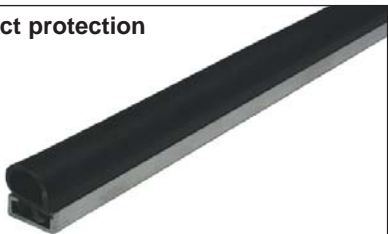


### Description / Installation

This accessory consists of a mechanical shutter where the section of the light beam crossing it is reduced in proportion to the screwing depth of a dowel, which is perpendicular to the optical axis. It allows the sensors to be better protected against damaging agents, as the part which is fitted into the rubber profile has a smooth surface, while the sensor is screwed onto the INOK and the tightness is guaranteed by an O-ring. Due to the reduction in the emitted power, caused by the narrowing of the beam, it is possible to use it only for sensing ranges up to 2m.

## INP/\*

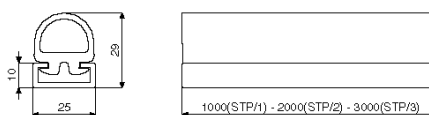
### Contact protection



applications on:

safety

### Dimensions



### Description / Installation

It consists of a sensitive part which comprises a hollow black rubber section and an aluminium channel section onto which the former is fitted. It is available in 3 different lengths, corresponding to model codes INP/1 (1m), INP/2 (2m) and INP/3 (3m). The aluminium channel section must be mechanically fixed to the machine by drilling a hole in the base and fixing it with screws. The rubber section must be fitted into the support guides and slid throughout its length. The Ø18 sensors must be fitted into the two ends, having them penetrate by at least 20mm.

## INB100 - INB101

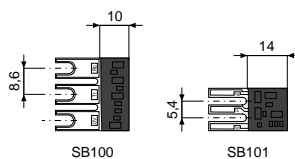
### Optic exclusion models



applications on:

safety

### Dimensions



### Description / Installation

Cut-out module for excluding an optical path in safety systems with INBCR02 control units. This is used to quickly adapt models available on stock which are pre-set for use with a higher number of sensors than may be necessary in that specific case. These modules should be fitted directly on the terminal board in place of the emitter/receiver pairs, which must be excluded. The INB100 model is to be used with control units without Muting function. The INB101 model is to be used with control units equipped with Muting function.

## INB300

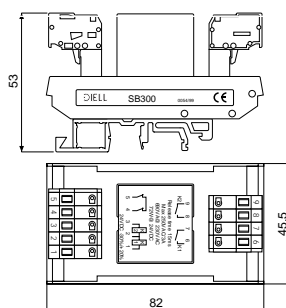
### Relays interface module



applications on:

safety

### Dimensions



### Description / Installation

This interface module is composed of two safety relays, R1 and R2, with DC coil. The module has two potential-free contacts. The control output consists of a set of NC contacts along with the two relays, and must be connected to the EDM input. The module can be utilised to make the electro-mechanic contacts available, if used with a safety unit with solid-state output. By means of this module, it is possible to control alternate current loads or create safety chains.

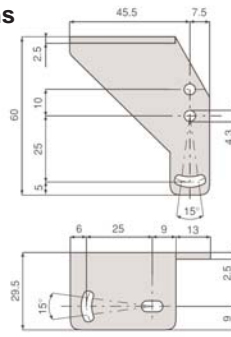
## IN07

INST07



applications on: world line series

Dimensions



**Description / Installation**

For an easy and perfect mounting and alignment of rectangular sensors. This bracket allows the mis-alignment adjustment of +/- 7.5° in all directions.

Mounting with M4 screws.  
Photoelectric sensor step 25mm.  
Mounting step 25 +10mm.

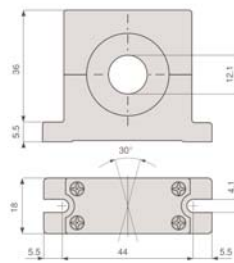
## IN04

Ø 12mm plastic swing bracket



applications on: Ø12mm sensors

Dimensions



**Description / Installation**

It is a plastic mount bracket for M12 sensors that using a ball joint, allows an easy mounting, orientation in all directions and a block of retro-reflective and through beam sensors.

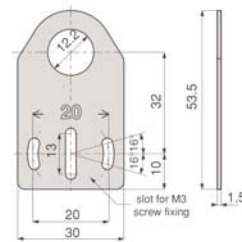
Mounting  
Fix the bracket to the support with two M4 screws, enter and block the special supplied nuts slightly then strongly tightening the four (4) head screws.

## IN12-A



applications on: Ø12mm sensors

Dimensions



**Description / Installation**

It is a metal plane mount bracket with a hole Ø12 for mounting the sensor and two holes for M3 screws, allowing the rotation of an optical axis for right beam angle adapter sensors.

Assembling  
Slightly fix the mount bracket with two M3 screws, position the sensor and fix it with specially supplied nuts, perform the adjustment procedure and block M3 screws.

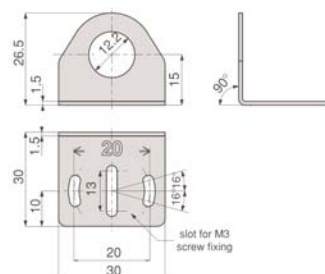
## IN12-C

Ø12 metal radial mounting bracket



applications on: Ø12mm sensors

Dimensions



**Description / Installation**

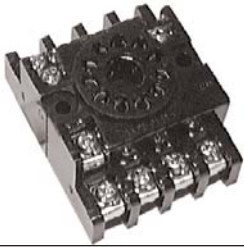
It is a metal angular mount bracket with Ø12 for mounting the sensor and two holes for M3 screws, allowing the rotation of an optical axis for axial sensors.

Assembling  
Slightly fix the mounting bracket with two M3 screws, position the sensor and fix it with the specially supplied nuts, perform the adjustment procedure and block the M3 screws.

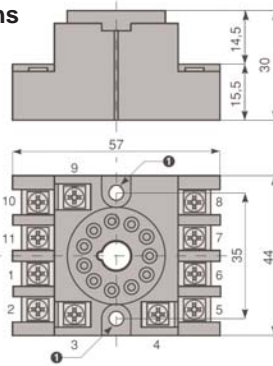


## INVZ1

11 Pin Socket



Dimensions



### Description / Installation

This unit mates with the RA amplifier system and runs the PRE75M and PTX75M harsh duty sensor set.

(1) mounting screw holes.

applications on:

RA amplifiers

## INT100

Sensor tester



Dimensions

### Description / Installation

It verifies the functionality of all DC sensors with moderate absorption (50mA max.)

Comes with 2x9V batteries

applications on:

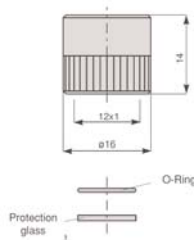
all DC sensors

## IN60

M12 protection front



Dimensions



### Description / Installation

The accessory consists of a black anodized-aluminum body, an O ring and a protection glass to screw on the sensor head, allowing use even in chemical solvents. The loss of sensitivity is 25%.

Before screwing on cover, place O ring and glass in position.

applications on:

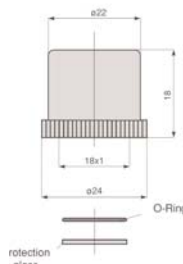
all M12 sensors

## IN50

M18 protection front



Dimensions



### Description / Installation

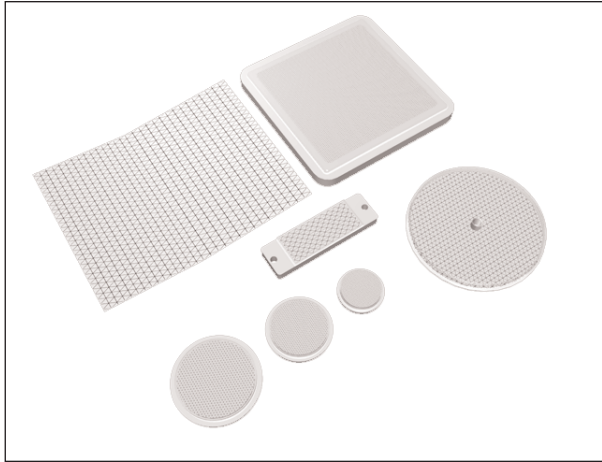
The accessory consists of a black anodized-aluminum body, an O ring and a protection glass to screw on the sensor head, allowing use even in chemical solvents. The loss of sensitivity is 25%.

Before screwing on cover, place O ring and glass in position.

applications on:

all M18 sensors

## Reflectors & Tape

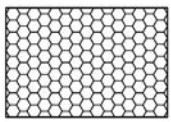


### Description / Installation

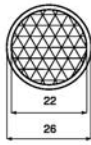
Suitable for use with polarized light

A variety of sizes and shapes to suit all applications.

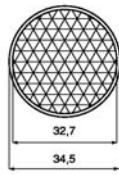
Self adhesive paper available.



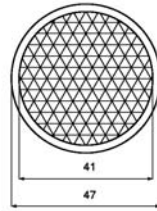
■ OX 100D



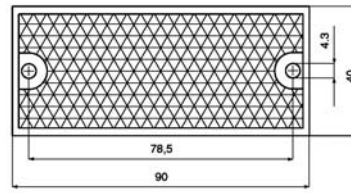
■ OX 102  
5mm thickness



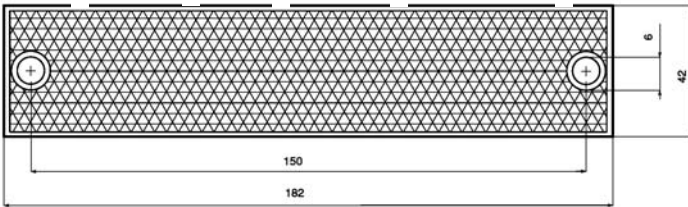
■ OX 103  
7,4mm thickness



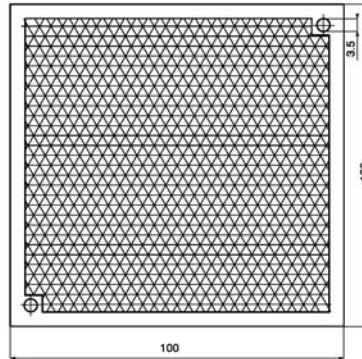
■ OX 104  
8mm thickness



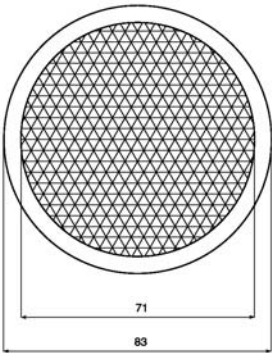
■ OX 105  
5mm thickness



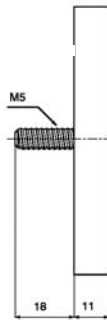
■ OX 106G  
6,5mm thickness



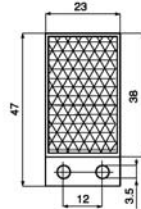
■ OX 107  
9,5mm thickness



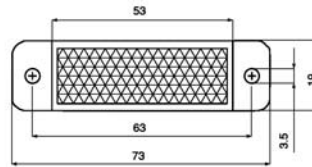
OX 109



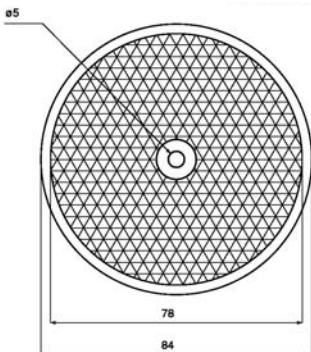
■ OX 110  
9mm thickness



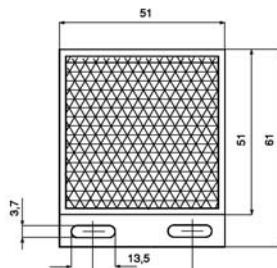
8mm thickness  
OX 111G



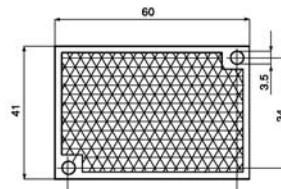
OX 112G



■ OX 110  
9mm thickness



■ OX 113G  
8mm thickness



■ OX 116  
13mm thickness