

**ipf**  
*electronic*



**ipf** **SAFE**

optoelectronic  
safety devices

safety light curtains  
hand, finger and body protection  
PL e · SIL 3  
category 4 · all around protected  
for highest safety

ipf electronic gmbh · Kalver Straße 25 – 27 · 58515 Lüdenscheid · Germany  
fon +49 2351 9365-0 · fax +49 2351 9365-19  
www.ipf-electronic.com · info@ipf-electronic.com

safety light curtains

## ipf safety light curtains

The new generation of opto-electronic safety equipment is an effective and cost saving alternative to conventional mechanical safety devices. Occupational health and personal safety have top priority in automated production and manufacturing processes.

Accident prevention curtains provide an invisible protection field made up of infrared beams. These can be used to make access to hazardous areas and hazardous places safe.



### safety light curtains

#### category 4 finger protection

Light curtains are available with protection field heights of 150 to 1800mm, a resolution of 14mm and an operating distance of up to 6m.

#### category 4 hand protection

Different models are available with protection field heights of 150 to 1,800mm. These models have a resolution of 30mm and an operating distance of up to 19m is guaranteed.

#### category 4 body protection

Different models are available with protection field heights of 500, 800, 900 and 1,200mm. The number of light axes varies between 2 and 4, according to the model. This enables an operating distance of up to 50m.

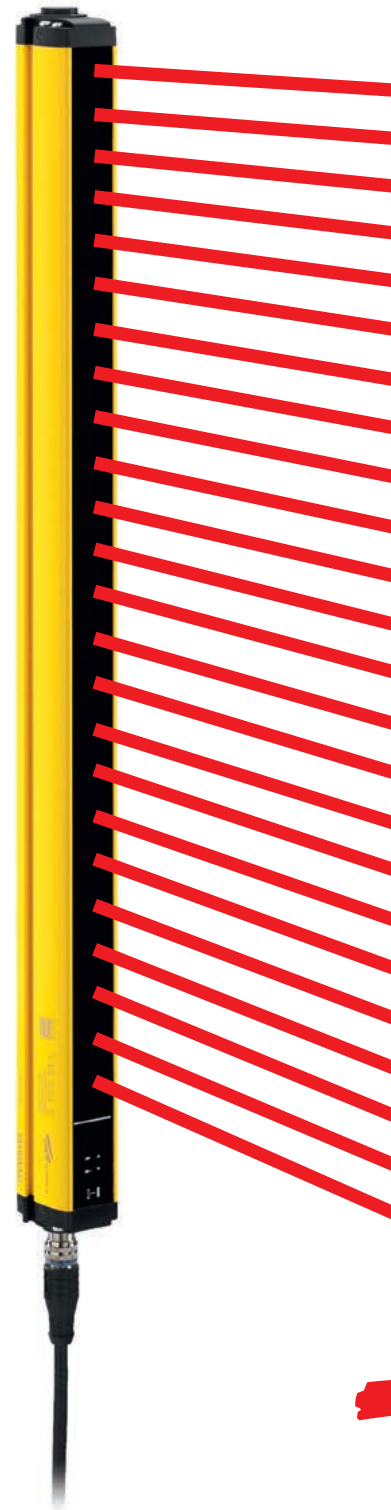
### configuration

The receiver connection (**OY32**) provides you with a very easy and quick way to set devices.

With the **OY36**, the configuration takes place via special DIP switches which are housed behind a cover that is arranged on the front. This cover can be opened with a commercially available screwdriver. This way, configure the system according to your safety requirements.

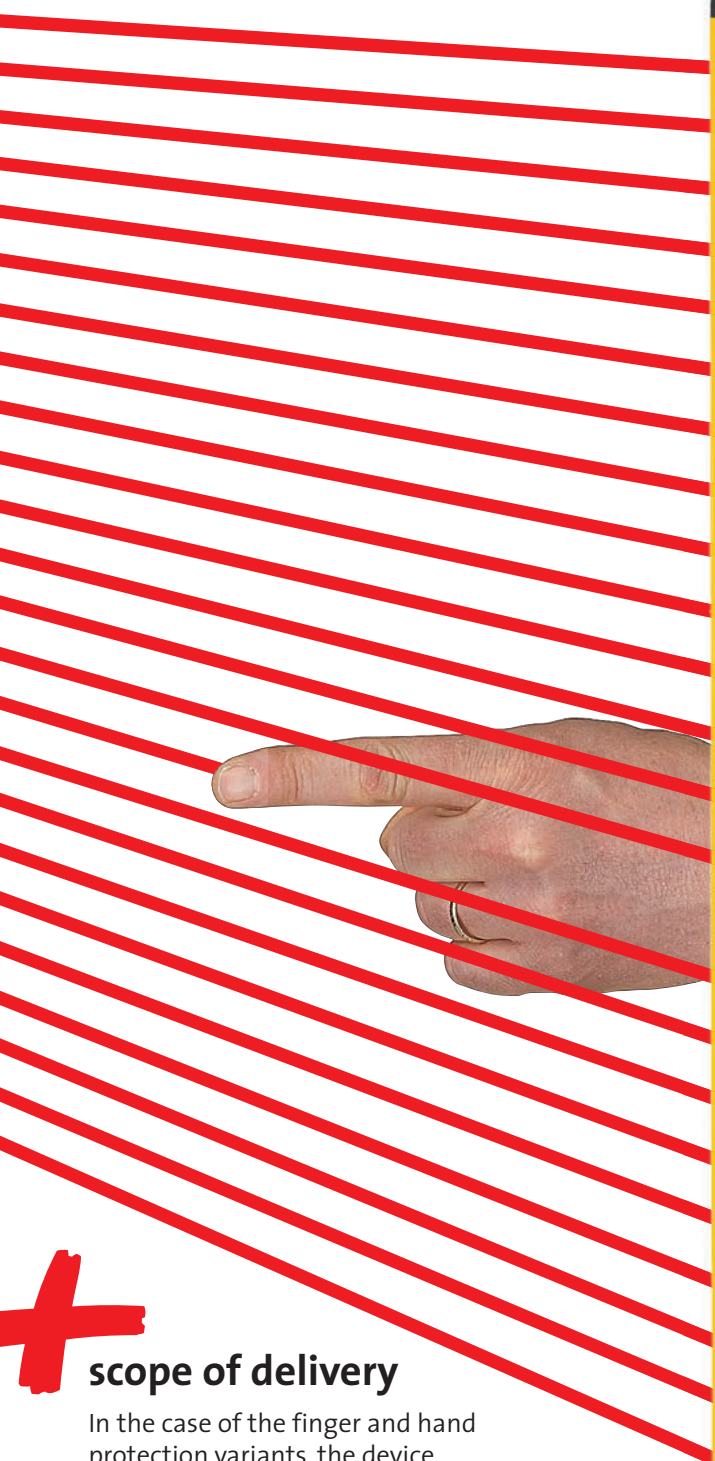
The system enables you to make a functional selection EDM function and manual or automatic restart.

With help of the EDM function, it is possible to monitor how the signal converter works.



Following a disruption to the protection field, it is possible to restart the safety light curtain in two different ways:

1. Automatic restart: The safety light curtain will go back to its normal function as soon as the protection field is free again.
2. Manual restart: When the protection field is free, the reset button has to be actuated in order to return the safety light curtain to the normal operational mode.



## scope of delivery

In the case of the finger and hand protection variants, the device is delivered with the necessary fastening material and the corresponding test bars.



## synchronization

The synchronization of the transmitter and receiver is realized with an optical method.



## wide range of accessories

safety relay



mounting bracket



laser pointer



column and floor mountings



tilted mirrors



connection cables



test bars



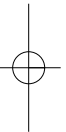
To see a list of the extensive range of accessories, please consult the product data sheet.



| danger point security type 4 | finger protection   | hand protection   | body protection  |
|------------------------------|---|---|--|
|                              | <b>article-no.</b> <b>field height [mm]</b><br>OY320130 150<br>OY320131 300<br>OY320132 450<br>OY320133 600<br>OY320134 750<br>OY320135 900<br>OY320136 1050<br>OY320137 1200<br>OY320138 1350<br>OY320139 1500<br>OY32013A 1650<br>OY32013C 1800 | <b>article-no.</b> <b>field height [mm]</b><br>OY320100 150<br>OY320101 300<br>OY320102 450<br>OY320103 600<br>OY320104 750<br>OY320105 900<br>OY320106 1050<br>OY320107 1200<br>OY320108 1350<br>OY320109 1500<br>OY32010A 1650<br>OY32010C 1800 | <b>article-no.</b> <b>field height [mm]</b><br>OY360110 500<br>OY360111 800<br>OY360112 900<br>OY360113 1200 |
|                              |   |   |  |

|                                       |   |   |   |
|---------------------------------------|---|---|---|
| according to IEC 61496-1, IEC 61496-2 |   |   |   |
| operating voltage                     | 24V DC ±20%   | 24V DC ±20%   | 24V DC ±20%   |
| resolution                            | 14mm  | 30mm  | -   |
| number of beams                       | 16 ... 192  | 8 ... 96  | 2, 3, 4   |
| operating distance                    | 0.2 ... 6m  | 0.2 ... 19m   | 0.5 ... 50m   |
| protection field height               | 150 ... 1800mm  | 150 ... 1800mm  | 500, 800, 900, 1200mm   |
| response time ???                     | 11 ... 50msec   | 9 ... 28msec  | 16msec  |
| output                                | 2 x pnp   | 2 x pnp   | 2 x pnp   |
| connection                            | transmitter: M12-connector, 4-pin<br>receiver: M12-connector, 8-pin | transmitter: M12-connector, 4-pin<br>receiver: M12-connector, 8-pin | transmitter: M12-connector, 4-pin<br>receiver: M12-connector, 8-pin |
| dimensions                            | 32 x 37mm   | 32 x 37mm   | 35 x 41mm   |
| function selection                    | manual-/ automatic restart<br>EDM-function                          | manual-/ automatic restart<br>EDM-function                          | manual-/ automatic restart<br>EDM-function                          |
| certifications                        |   |   |   |

|              |   |  |  |
|--------------|---|--|--|
| applications | danger point security   | danger point security  | access security                                  |
|              | <br>bending and cutting machines<br><br><br>metal working machines<br><br><br>presses and punch presses | <br>metal working machines<br><br><br>presses<br><br><br>automotive industry | <br>assembly robots<br><br><br>conveying systems |





## **+** quick an easy mounting

Without problems, simply mount the exceptionally compact and stable housing (aluminium) in every machine using the enclosed brackets. The safety light curtains can be twisted by means of additionally available mounting brackets. The system is highly shock resistant / vibration resistant.

## **+** conforming to standards

In accordance with the applicable standards, the safety light curtains are suitable for safeguarding hazardous areas and in cases where the operator is required to use finger, hand or body protection. Thanks to the compact dimensions 32 x 37mm = **OY32** und 35 x 41mm = **OY36**, as well as the simple connection and installation technology, this range of light curtains offers the operator optimum real protection in all industrial safety applications. The equipment is TÜV-tested.

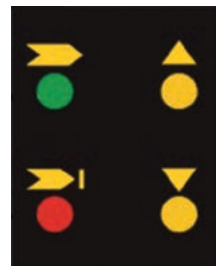
## **+** simply connect and you're ready

Reverse polarity protection via a M12-connector: The transmitter is connected by a 4-pin connector and the receiver is connected by an 8-pin connector.

## **+** LED displays

### Receiver:

LED »normal operation«: green  
 »safe«: red  
 LED »high align«: yellow  
 LED »low align«: yellow  
 The meaning of the LED on the receiver depends on the mode of operation.



### Transmitter:

LED »normal operation«: yellow  
 LED »power on«: green





## **ipf electronic gmbh**

Kalver Straße 25 – 27  
58515 Lüdenscheid  
Germany

fon +49 2351 9365-0  
fax +49 2351 9365-19

e-mail [info@ipf-electronic.com](mailto:info@ipf-electronic.com)  
[www.ipf-electronic.com](http://www.ipf-electronic.com)

## **worldwide**

### **ipf electronic gmbh – export division**

Kalver Straße 25 – 27  
58515 Lüdenscheid  
Germany

fon +49 2351 98597-0  
fax +49 2351 98597-29

e-mail [export@ipf-electronic.com](mailto:export@ipf-electronic.com)  
[www.ipf-electronic.com](http://www.ipf-electronic.com)

Subject to alteration!