



Product group
Optoelectronic protective devices
PSENopt and PSENopt SB

▶ Optoelectronic protective devices PSENopt



SafetyBUS p
The Safe Standard



PSENopt



PSENopt SB

**... to safeguard man
and machine without the
use of barriers**

Light beam devices, light curtains and light grids are all classed as electrosensitive protective equipment (ESPE). They are optoelectronic protective devices and are an effective, cost-saving alternative to conventional mechanical guards.

PSENopt devices are used to safeguard access to danger points, where the production process requires active intervention. An invisible protected field of infrared beams protects these zones. If a light beam is broken it will immediately trigger a safe shutdown command. In this way you can protect your staff from injury – safely and effectively, without causing an obstruction.



and PSENopt SB

PSENopt – for finger, hand and body protection

PSENopt light beam devices, light curtains and light grids with semiconductor outputs are suitable for all Type 2 and Type 4 applications in accordance with EN/IEC 61496-1/-2.

They are simple and quick to commission thanks to their integral alignment guide and compact dimensions. You can also save costs with integral functions such as muting, blanking and cascading. Read more from page 32.

PSENopt SB – for SafetyBUS p applications

The safe, open bus system SafetyBUS p is recommended for cost-effective monitoring of a large light grid application. And for this it's best to turn to the PSENopt SB.

Reduce the amount of work involved by using compatible system components and safeguard your staff in accordance with Type 4 of EN/IEC 61496-1/-2. You can save work on both installation and maintenance. Read more from page 48.

Select the right PSENopt to conform to the standard

Carry out a safety assessment in accordance with EN 954-1 and then assess the risk in accordance with EN/IEC 61496-1/-2. You can then use this information to work out the appropriate light grid resolution for your application, in accordance with EN 999.

Select the electro-sensitive protective device that best meets your needs. This will mean greater safety for finger, hand and body, compatible with a wide range of applications.



The appropriate PSENopt safety sensor for each application

Type	PSENopt	PSENopt SB
Interfaces	With semiconductor outputs	With SafetyBUS p interface
Resolution	Finger, hand, body protection as well as access protection	Finger, hand, body protection
For use in applications in accordance with EN 954-1	Category 2 and 4	Category 4
Approved in accordance with EN/IEC 61496-1/-2	Type 2/Type 4	Type 4
Functions/features	Muting (S/L/T or total/partial), blanking, cascading, feedback loop monitoring	Muting sensors, muting lamp, reset, acknowledgement, diagnostics
Height of protected field	150 ... 1,650 mm	300 ... 1,650 mm
Operating range	0.2 ... 50 m (depending on version)	0.2 ... 25 m (depending on version)
Light grid reaction time	333 µs ... 68 ms (depending on version)	55 ... 105 ms (depending on version)

Keep up-to-date on PSENopt:

Webcode 0311

Online information at www.pilz.com



► Greater productivity with ergonomic work

If the production process requires active intervention, there is a high potential risk. Mechanical guards can seriously disrupt the work cycle. Why not design workstations to be ergonomic and still provide effective protection for your staff.

PSENOpt light beam devices, light curtains and light grids offer greater productivity, while safeguarding access to the work process.

Save costs:

- ▶ PSENOpt devices have a compact design and therefore save space
- ▶ The product features of the PSENOpt mean they can quickly be incorporated, operated and maintained on your plant.
- ▶ Protected fields and detection capability can be set up to be process-oriented



Monitoring high-bay racking with PSENOpt for access protection.



Monitoring robots with PSENOpt for hand protection.



Monitoring a press with PSENOpt for finger protection.

stations



Monitoring an assembly line with PSENopt for access protection.



Monitoring a plant with PSENopt for body protection.

PSENopt for all industries and applications

Muting, blanking and/or cascading open up a range of possibilities for optimum incorporation of PSENopt into your plant. So they are suitable for all industries and applications:

- ▶ Presses and punch machines
- ▶ Folding and cutting machines
- ▶ Machining centres
- ▶ Robot systems
- ▶ Assembly stations
- ▶ Assembly lines
- ▶ Transport and conveyor systems
- ▶ High-bay racking
- ▶ Packaging machines
- ▶ Injection moulding machines
- ▶ Wood, leather, ceramics and textile processing machines

SafetyBUS p
the safe standard

SafetyNET p

Keep up-to-date on our work in specific industries:

 Webcode 0683

Online information at www.pilz.com