▶ Safety laser scanner PSENscan: Productive area monitoring – including in series

PSENscan

The safety laser scanner PSENscan offers two-dimensional area monitoring with an opening angle of 275 degrees and a protected field range of up to 5.5 metres. Thanks to the free configuration of warning and protected fields as well as adaptation to structural conditions, the scanner can be optimally integrated into the widest range of applications. To increase productivity, three separate zones can be monitored simultaneously and up to 70 selectable configurations can be set up. Series connection of up to four scanners in accordance with the master-subscriber principle means that you can significantly reduce your cabling and setup costs and requirements.

Combining with configurable safe small controllers PNOZmulti 2 or controllers PSSuniversal gives you a cost-effective, complete, one-stop solution.

Your benefits at a glance

- ▶ Protected field ranges of up to 5.5 m
- ▶ Flexible integration: compact housing and free configuration of the protected fields and warning zones
- ▶ Integrated operator display for immediate information
- ▶ Robust to dust
- ▶ Easy to assemble and align with the appropriate accessories
- ▶ Fast and simple configuration with the PSENscan Configurator
- ▶ Simultaneous monitoring of up to three separate zones with just one scanner
- ▶ Up to 70 switchable configurations can be set up
- ▶ Series connection of up to four scanners
- ▶ Exchangeable memory for transferring the configuration
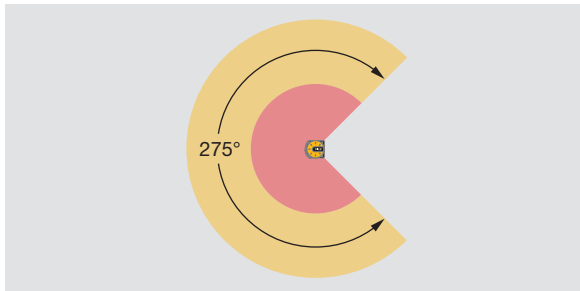
PILZ
THE SPIRIT OF SAFETY

▶ Optimum safeguarding of danger zones

Stationary or mobile safeguarding of danger zones as well as access monitoring –
the safety laser scanner PSENscan offers the optimum solution for your application.
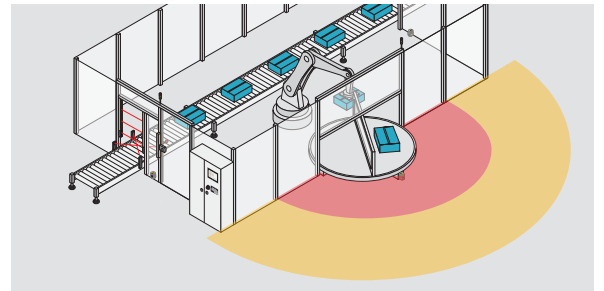
Two-dimensional area monitoring

The safety laser scanners PSENscan provide two-dimensional area monitoring with an opening angle of 275 degrees. Protected fields and warning fields can be freely configured and adapted to structural conditions. As a result, laser scanners PSENscan can easily be integrated into the most varied of applications. Use the PSENscan Configurator for this.

Easy to integrate into the application: free configuration of the protected fields and warning fields, including adaptation to structural conditions.
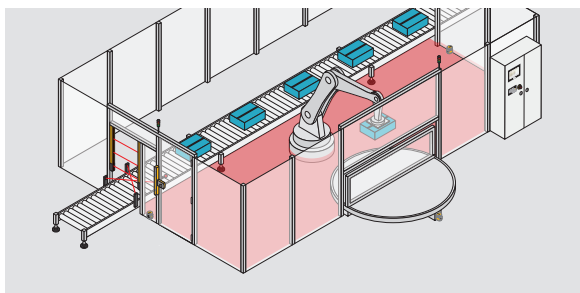
Stationary safeguarding of danger zones

Applications that involve interaction between human and machine place high demands on the safety solution. Safety laser scanners PSENscan detect when someone is approaching a hazardous movement. Entry into a warning field causes controlled braking of the hazardous movement; entry into the protected field causes the hazardous movement to be stopped.

Safe detection of persons in the danger zone for controlled braking of the hazardous movement.
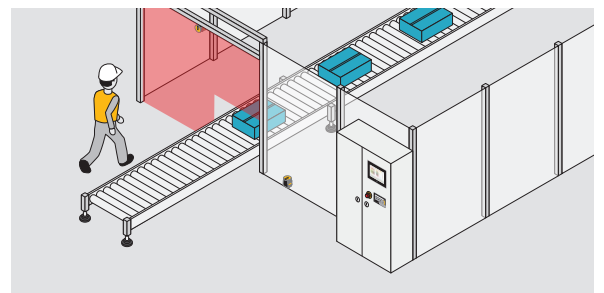
Rear access protection

A reliable safety concept is indispensable particularly in danger zones where visibility is poor, e.g. in the case of robot applications. Safety laser scanners PSENscan detect the presence of a person in the danger zone and prevent the hazardous movement from restarting.

PSENscan fulfils two requirements at the same time: safeguarding of danger zones and restart monitoring.

Access guarding

A flexible solution is needed to safeguard access to danger zones in the widest range of applications. Safety laser scanners PSENscan provide optimum protection against access of persons, but that's not all; thanks to integrated muting inputs they are also suitable for applications in which material is transported in and out simultaneously.
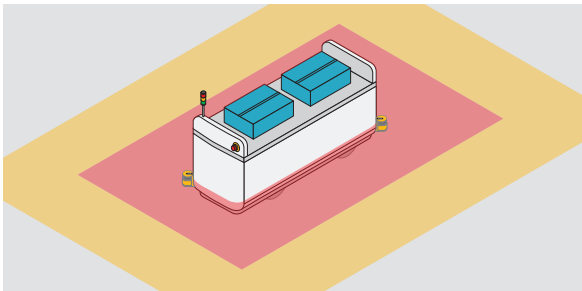

Distinguishes between humans and material, for safe infeed and outfeed of material.

▶ Safeguarding of automated guided vehicle systems

Reliable safeguarding of automated guided vehicle systems (AGVS) is required in order to protect people and objects from harm. Safety laser scanners PSENscan detect objects in the vehicle's path and guarantee maximum safety, even at high speeds, without compromising productivity.
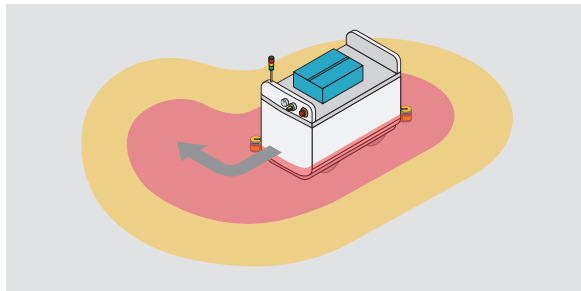
Safe all round

AGVS can enjoy all-round protection with just two safety laser scanners. The safety laser scanners detect objects in the vehicle's path and ensure that the AGVS brakes in good time.

Safe cornering

To guarantee safe routes even when negotiating bends, various protected fields and warning fields can be configured. So it is possible to switch to the appropriate protected field and warning field, based on the current route.

All-round protection of AGVS with just two safety laser scanners.

Dynamic zone switching of freely navigating mobile applications.
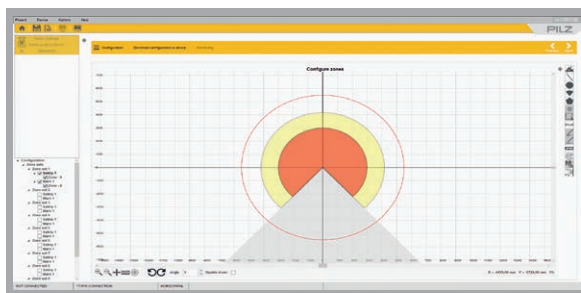
Have the complete picture

Safety laser scanners PSENscan measure the distance of objects in their environment. This information can be used for direct navigation of the automated guided vehicle systems.

Simply import zones directly

The zone sets created with PSENscan Configurator are automatically imported into the navigation computer of the automated guided vehicle system. In this way, the zones are transferred quickly and without errors.
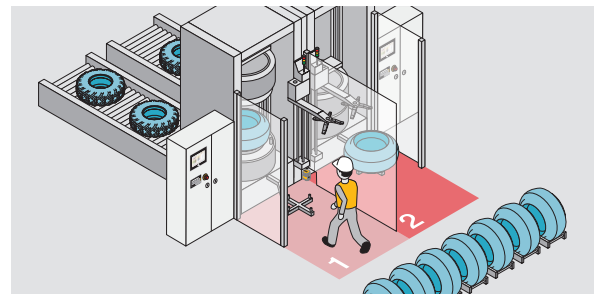
Direct navigation of AGVS thanks to monitoring of the environment.

Automatic zone import from PSENscan Configurator into the navigation computer.

▶ Flexible solution for your application

Whether used alone, in series or in conjunction with other products, the safety laser scanners PSENscan offer a tailor-made solution for your application.
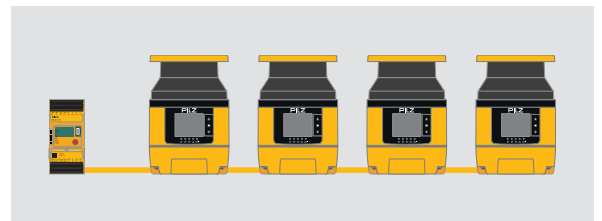
Simultaneous monitoring of up to three safety zones

With PSENscan, up to three safety zones can be monitored simultaneously and independently. Only the plant section that is accessed by a person is stopped. As a result, safety distances in your plant can be optimised. This ensures increased productivity and improved ergonomics for your plant – and optimum safety.
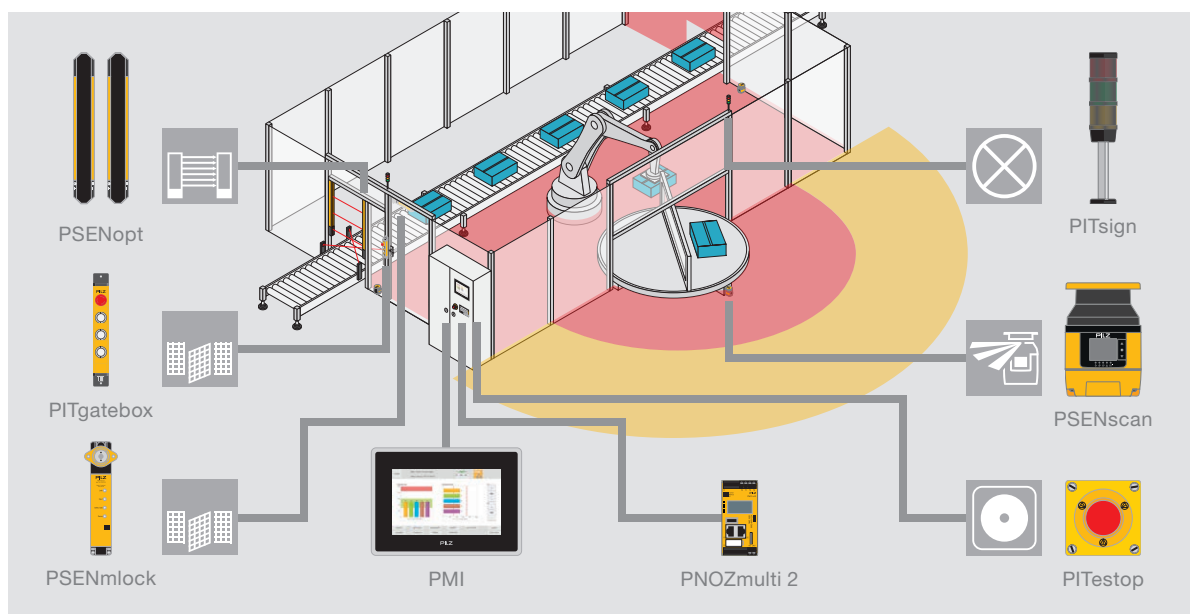
Simple configuration thanks to series connection

Up to four safety laser scanners PSENscan can be connected in accordance with the master-subscriber principle. In this case the configuration is made centrally on the master scanner and is then passed to the subscriber. The subscriber's power supply is also provided via the master.

Safe, complete solution

With many years of experience in the field of optoelectronic sensors, Pilz is your competent partner for safety laser scanners. From sensor technology to control and drive technology plus visualisation – with our full portfolio we offer you a complete one-stop solution. The safe small controller PNOZmulti 2 and the safety laser scanner PSENscan work together perfectly. The function block of the laser scanner PSENscan in the PNOZmulti Configurator enables dynamic modification of up to 70 protective fields thanks to the zone selection function.

PSENopt

PITgatebox

PSENmlock

PMI

PNOZmulti 2

PITsign

PSENscan

PITestop

Safety laser scanners PSENscan

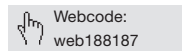| Type	Common features	Order number

Light versions
PSEN sc L 3.0 08-12
PSEN sc L 5.5 08-12
	▸ Compliant and approved in accordance with:
	  - EN IEC 61496-1: Type 3
	  - EN ISO 13849-1: PL d
	  - IEC 61508: SIL 2
		6D000012
		6D000013

Master versions **PSEN sc M 3.0 08-12** **PSEN sc M 5.5 08-12** **PSEN sc M 5.5 08-17**	▸ Opening angle: 275 degrees ▸ Operating range: 3.0 or 5.5 m safety zone, 40 m warning zone ▸ Reaction time: 62 ms	6D000016 6D000017 6D000019

Subscriber versions
PSEN sc S 3.0 08-12
PSEN sc S 5.5 08-12
	▸ Protection type: IP65
	▸ Dimensions (H x W x D): 152 x 102 x 112.5 mm
	▸ Further functions: muting, EDM, override
	▸ Additional functions for the master and
	  subscriber versions:
	  - Restart in accordance with EN IEC 61496-3
	  - Vertical applications
		6D000020
		6D000021

PSENscan

Selection guide – PSENscan accessories

PSEN sc bracket PR

PSEN sc bracket H

Type	Description	Order number
PSEN sc bracket PR	Mounting bracket for tilt angle and roll angle adjustment	6D000002
PSEN sc bracket P	Mounting bracket for tilt angle adjustment	6D000003
PSEN sc bracket H	Accessories for head protection	6D000004
PSEN sc memory 08-17	Memory module 8 and 17-pin, M12	6D000005
PSEN sc memory 08-12	Memory module 8 or 12-pin, M12	6D000006
PSEN sc head	Head module	6D000007
PSEN sc cleaner	Cleaning agent	6D000008
PSEN sc cloth	Cleaning cloth	6D000009
PSEN sc bracket F	Mounting bracket for floor attachment	6D000010
PSEN sc bracket C	Mounting head for corner fastening	6D000011

PSEN

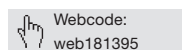Fast
and simple
configuration with
the PSENscan
Configurator:

Webcode:
web188187

Selection guide – PSENscan cables

PSEN cable
M12-8sf

Type	Description/features	Order number		
PSEN cable M12-8sf	Connection cable for I/Os and supply voltage, PUR, cable cross section 0.25 mm²	3 m ___ 540319 5 m ___ 540320 10 m ___ 540321	20 m ___ 540333 30 m ___ 540326	
PSEN sc cable M12-17sf sh	Special connection cable Advanced PSENscan, 17-core, shielded	2 m __ C1000063 5 m __ C1000064 10 m __ C1000065	20 m __ C1000066 50 m __ C1000067	
Cable/PN/RJ45-4SM/ M12-4SMX/D	Network connection cable, CAT5e, shielded, for industrial installation	3 m __ C1000001 5 m __ C1000002	10 m __ C1000003 20 m __ C1000004	
PSEN cable M12-12sf	Connection cable, PUR, cable cross section 0.25 mm²	2 m ___ 570350 3 m ___ 570351 5 m ___ 570352 10 m ___ 570353	20 m ___ 570354 30 m ___ 570355 50 m ___ 570356	
PSEN sc cable CAT5e M12-8sm/M12-8sm	Connection cable PSENscan Subscriber, Ethernet CAT5e, 8-core, shielded	1 m __ 6D000022 3 m __ 6D000023 5 m __ 6D000024	10 m __ 6D000025 20 m __ 6D000026	
PSEN op Ethernet cable	Network connection cable, CAT5e, shielded	1 m ___ 631071 3 m ___ 631072	10 m ___ 631073	

Keep up-to-date
on safety
laser scanners
PSENscan:

Webcode:
web181395

Online information
at www.pilz.com

▶ Support

Technical support is available from Pilz round the clock.

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