# 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 fields 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-slave principle means that you can significantly reduce your cabling and setup costs and requirements. An integrated operator display provides information directly. The exchangeable storage medium allows you to transfer your configuration at any time.

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

- Large opening angle of 275 degrees
- ▶ Always the right operating range: unit types with protected field ranges of up to 5.5 metres
- ▶ Easy to integrate into the application: compact housing as well as free configuration of the protected fields and warning fields including adaptation to structural conditions
- ▶ Up to three separate zones can be monitored simultaneously with just one scanner and up to 70 selectable configurations can be set up
- ▶ Reduction of cabling and setup costs and requirements: series connection of up to four scanners in accordance with the master-slave principle
- Integrated operator display provides information immediately
- ▶ High availability as it is resistant to dust
- ▶ Simple assembly and alignment of scanner with the appropriate accessories
- Exchangeable memory for transferring the configuration
- Fast and simple configuration with the PSENscan Configurator









# Optimum safeguarding of danger zones

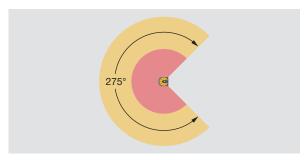
Stationary or mobile safeguarding of danger zones as well as access monitoring – the safety laser scanner PSENscan offers the optimum solution for your application.

#### Two-dimensional area monitoring

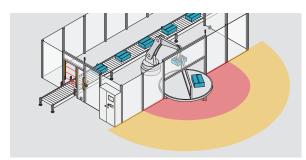
The safety laser scanners PSENscan provide twodimensional area monitoring with an opening angle of 275 degrees. Protected fields and warning fields can be freely defined and adapted to structural conditions. As a result, laser scanners PSENscan can easily be integrated into the most varied of applications.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

#### 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.



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



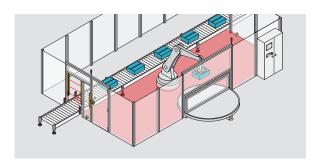
Safe detection of persons in the danger zone for controlled braking of the hazardous movement.

#### Encroachment from behind

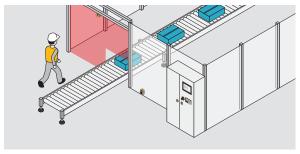
A reliable safety concept is indispensable particularly in danger zones where visibility is poor, e.g. in the case of robot applications. Safety laser scanners PSENscan detect the presence of a person in the danger zone and prevent the hazardous movement from restarting.

#### 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.



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



Distinction made between humans and material, ensuring the safe infeed and outfeed of material.

# Safeguarding of automated guided vehicles

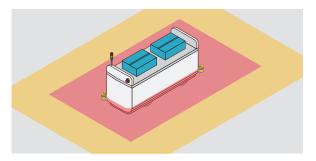
Reliable safeguarding of automated guided vehicles (AGV) is required in order to protect people and objects from harm. Safety laser scanners PSENscan detect objects on the vehicle's route and guarantee maximum safety, even at high speeds, without compromising productivity.

#### Safe all round

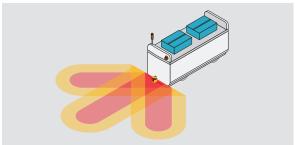
AGVs can enjoy all-round protection with just two safety laser scanners. The safety laser scanners detect objects in the vehicle's path and ensure that the AGV brakes in good time.

#### Safe cornering

To guarantee safe routes even when negotiating bends, various protected fields and warning fields can be configured. It is possible to switch to the appropriate protected field and warning field to suit the current travel route.



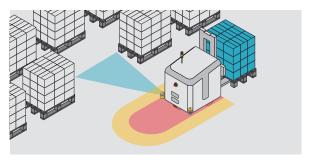
All-round protection of AGV with just two safety laser scanners.



Switching the protected field and warning field to the current route.

#### 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 vehicles.



Direct navigation of AGV thanks to monitoring of the environment.



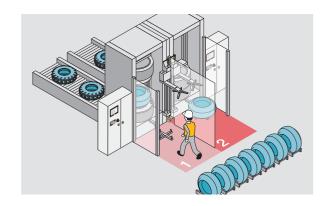


# ► Flexible solution for your application

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 of each other. Only the plant section which a person has entered is stopped. This allows the safety distances of your plant to be optimised. The result is increased plant productivity and improved plant ergonomics while ensuring optimum safety.



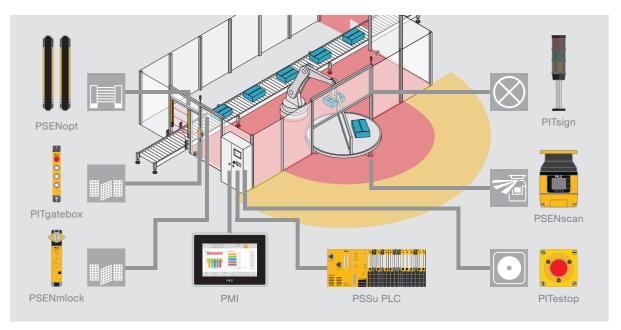
#### Simple configuration thanks to series connection

Up to four safety laser scanners PSENscan can be connected in accordance with the master-slave principle. In this case the configuration is made centrally on the master scanner and is then passed to the slaves. The slaves are also supplied with power 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.



## Safety laser scanner PSENscan



**PSENscan** 

Туре	Common features	Order number
Basic version PSEN sc B 5.5	Compliant and approved in accordance with:  - EN/IEC 61496-1: Type 3  - EN ISO 13849-1: PL d  - IEC 61508: SIL 2  Opening angle: 275 degrees  Operating range: 3.0 or 5.5 m safety zone, 40 m warning zone  Reaction time: 62 ms  Protection type: IP65  Dimensions (H x W x D): 152 x 102 x 112.5 mm  Additional functions for the light, master and slave versions:  - Muting  - EDM  - Override  Additional functions for the master and slave versions:  - Restart in accordance with EN ISO 61496-3  - Vertical applications	6D000001
Light versions PSEN sc L 3.0 08-12 PSEN sc L 5.5 08-12		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 <sup>1)</sup>		6D000016 6D000017 6D000019
Slave versions PSEN sc S 3.0 08-12 PSEN sc S 5.5 08-12		6D000020 6D000021

<sup>1)</sup> Available soon

## Selection guide - PSENscan accessories



PSEN sc bracket PR



PSEN sc bracket H

Туре	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 <sup>1)</sup>	Memory module 8 and 17-pin, M12	6D000005
PSEN sc memory 08-12	Memory module 8 or 12-pin, M12	6D000006
PSEN sc cleaner	Cleaning agent	6D000008
PSEN sc cloth	Cleaning cloth	6D000009
PSEN sc bracket F	Mounting bracket for floor fastening	6D000010
PSEN sc bracket C	Mounting head for corner fastening	6D000011

<sup>1)</sup> Available soon



Fast and simple configuration with the PSENscan Configurator:



## Selection guide - PSENscan cables



PSEN cable axial M12 8-pole

Туре	Description/features	Order number
PSEN cable axial M12 8-pin	<ul> <li>I/Os and voltage supply</li> <li>Connection 1: straight, M12, 8-pin, socket</li> <li>Connection 2: open cable</li> <li>Drag chain-enabled</li> </ul>	3 m 540319 5 m 540320 10 m 540321 30 m 540326
PSEN op Ethernet cable	Connection cable to PC/network  Connection 1: RJ45, 4-pin Connection 2: M12, 4-pin, connector, D-coded	3 m 631072 10 m 631073

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



Online information at www.pilz.com

of PIR Grabh & Co. KG in some countries. We would point out that product features may vary from the details stated in this document, depending on the status at the time of publication and the scope of the equipment. We accept no responsibility for the validity, accuracy and entirety of the text and graphics presented in this information. Please contact our Technical Support if you have any questions.

, CHRE°, CMSE°, InduraNET p°, Leansafe°, Master of Safety°, Master of Security°, PAS4000°, PAScal°, PAScanfig°, PIL°, PILD°, PMCprimo°, PMCprotego°, PMCtendo°, PMI pMP, PNOZ°, PRBT°, PRGM°, PRIM°, PSEN°, PSS°, PVIS°, SafetyBUS p°, SafetyEYE°, SafetyNET p°, THE SPIRIT OF SAFETY° are registered and protected tradema



Technical support is available from Pilz round the clock.

Americas		
Brazil		
+55 11 97569-2804		
Canada		
+1 888-315-PILZ (315-7459		
Mexico		
+52 55 5572 1300		
USA (toll-free)		
+1 877-PILZUSA (745-9872)		

۸ ـ	:_
AS	ıa

China +86 21 60880878-216 Japan +81 45 471-2281 South Korea +82 31 778 3300

#### Australia

+61 3 95600621

Europe Austria +43 1 7986263-0 Belgium, Luxembourg +32 9 3217575 France +33 3 88104003 Germany +49 711 3409-444 Ireland +353 21 4804983

Italy, Malta +39 0362 1826711 Scandinavia

+45 74436332

Spain

+34 938497433

Switzerland

+41 62 88979-32

The Netherlands +31 347 320477

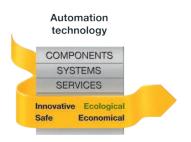
Turkey

+90 216 5775552 **United Kingdom** +44 1536 462203

## You can reach our international hotline on:

+49 711 3409-444 support@pilz.com

Pilz develops environmentally-friendly products using ecological materials and energy-saving technologies. Offices and production facilities are ecologically designed, environmentally-aware and energy-saving. So Pilz offers sustainability, plus the security of using energy-efficient products and environmentally-friendly solutions.



Presented by:











We are represented internationally. Please refer to our homepage www.pilz.com for further details or contact our headquarters.

Headquarters: Pilz GmbH & Co. KG, Felix-Wankel-Straße 2, 73760 Ostfildern, Germany Telephone: +49 711 3409-0, Telefax: +49 711 3409-133, E-Mail: info@pilz.com, Internet: www.pilz.com

