



Visualisation; Diagnostics

Easy to Configure

Programming IEC 61131-3

Rapid Installation

PSEN im1

► Accessories PNOZmulti

PILZ
THE SPIRIT OF SAFETY

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SD means Secure Digital

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Introduction

Validity of documentation

This documentation is valid for the product PSEN im1. It is valid until new documentation is published.

This operating manual explains the function and operation, describes the installation and provides guidelines on how to connect the product.

Using the documentation

This document is intended for instruction. Only install and commission the product if you have read and understood this document. The document should be retained for future reference.

Definition of symbols

Information that is particularly important is identified as follows:



DANGER!

This warning must be heeded! It warns of a hazardous situation that poses an immediate threat of serious injury and death and indicates preventive measures that can be taken.



WARNING!

This warning must be heeded! It warns of a hazardous situation that could lead to serious injury and death and indicates preventive measures that can be taken.



CAUTION!

This refers to a hazard that can lead to a less serious or minor injury plus material damage, and also provides information on preventive measures that can be taken.



NOTICE

This describes a situation in which the product or devices could be damaged and also provides information on preventive measures that can be taken. It also highlights areas within the text that are of particular importance.

**INFORMATION**

This gives advice on applications and provides information on special features.

The interface PSEN im1

Using the interface PSEN im1, one or more pressure-sensitive protective devices (safety mats and safe edges) can be connected to the configurable control system PNOZmulti and evaluated.

Only pressure-sensitive protective devices that have been approved by Pilz may be connected to the PSEN im1 (see TÜV certificate for the respective product range (PNOZmulti or PNOZmulti 2)).

Only pressure-sensitive protective devices without installed terminating resistors are suitable.

Approved devices from the PNOZmulti systems are suitable evaluation devices, and are stated in the TÜV certificate for the respective product range PNOZmulti or PNOZmulti 2.

You must also refer to

- ▶ The operating manuals provided with the PNOZmulti units
- ▶ The chapter entitled "Safety Mat/Safe Edge" in the "Special Applications" document
- ▶ The installation manual and user information provided by the respective safety mat/safe edge manufacturer

For your safety

- ▶ Only install and commission the unit if you have read and understood these operating instructions and are familiar with the applicable regulations for health and safety at work and accident prevention.

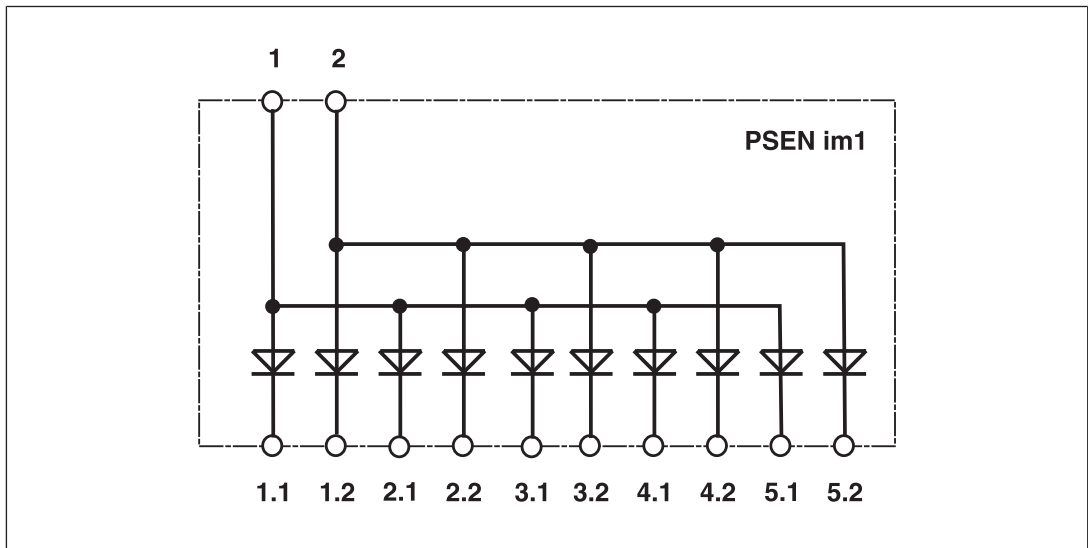
Ensure VDE and local regulations are met, especially those relating to safety.

- ▶ Any guarantee is rendered invalid if the housing is opened or unauthorised modifications are carried out.

Unit features

- ▶ 1 dual-pole input for connecting the test pulse outputs from PNOZmulti base units
- ▶ Connection option for max. 5 groups of pressure-sensitive protective devices
- ▶ Each group of pressure-sensitive protective devices can include a max. of 5 pressure-sensitive protective devices connected in series.

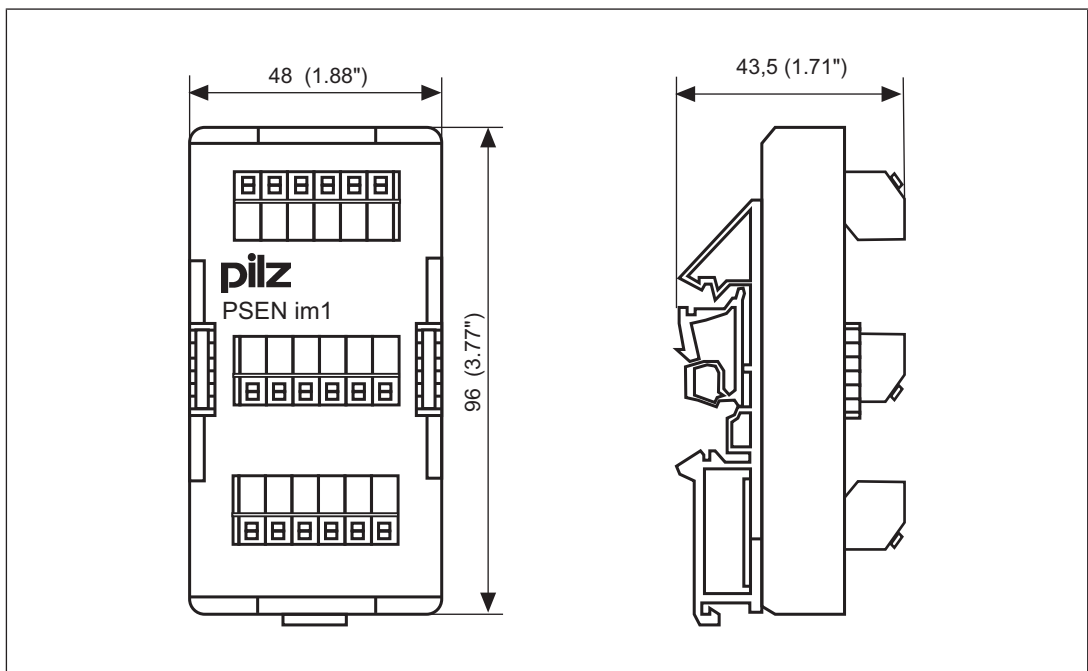
Internal wiring diagram



Function description

The PSEN im1 connects 5 groups of pressure-sensitive protective devices to PNOZmulti units without feedback.

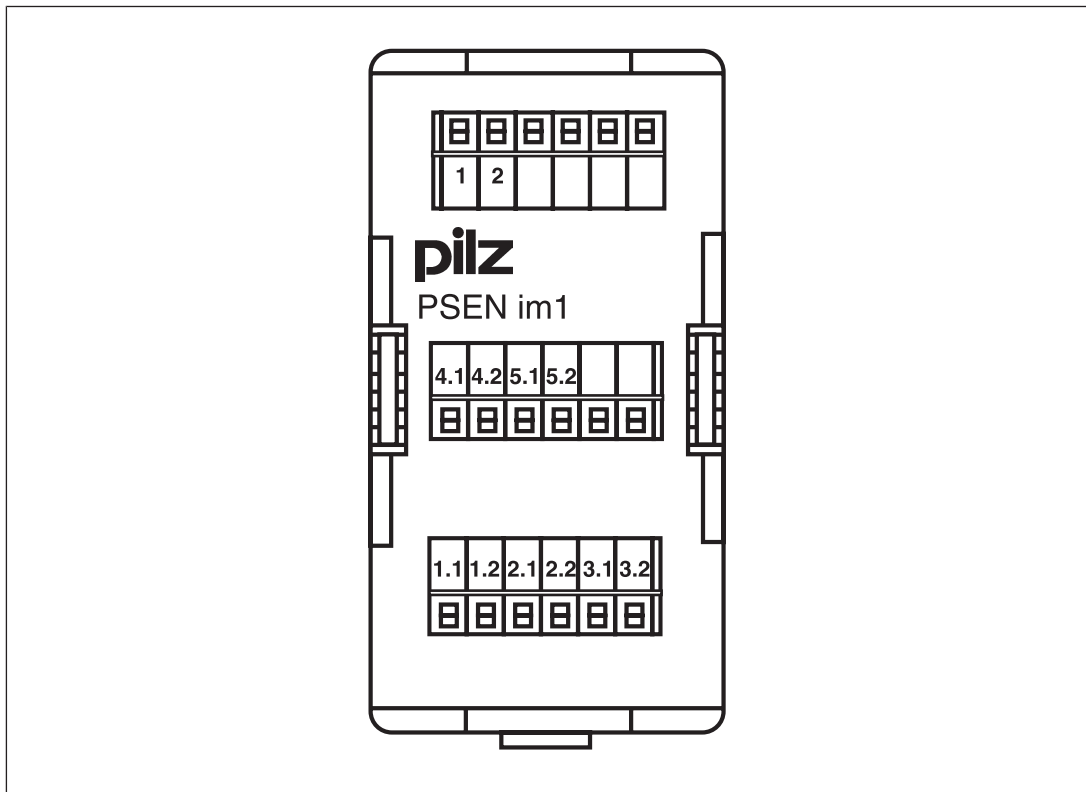
Dimensions



Installation

- ▶ The unit should be installed in a control cabinet with a protection type of at least IP54.
- ▶ Use the notch on the rear of the unit to attach it to a DIN rail (35 mm).
- ▶ When installed vertically: Secure the unit by using a fixing element (e.g. retaining bracket or end angle).

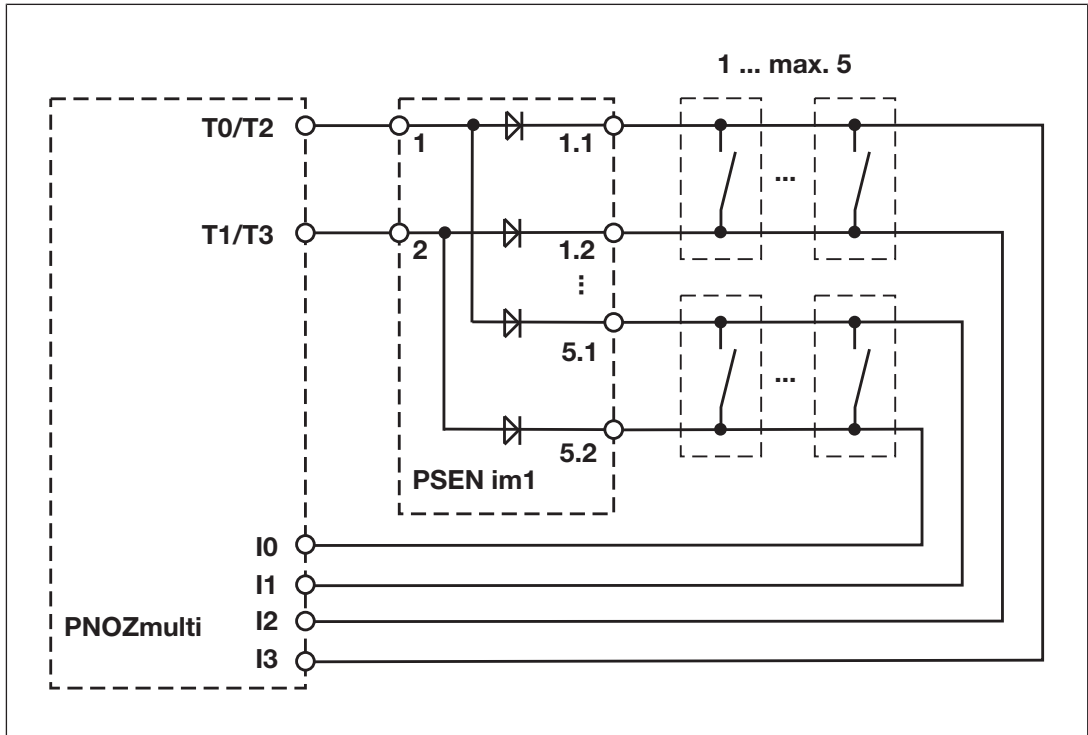
Pin assignment



Preparing for operation

- ▶ Connect the PSEN im1 to
 - the test pulse outputs of the PNOZmulti
 - the inputs of the pressure-sensitive protective devices
- ▶ Connect the pressure-sensitive protective devices to the inputs of the PNOZmulti base unit
- ▶ The configured test pulse outputs should be used exclusively for test pulses on the pressure-sensitive protective devices.
- ▶ Be sure to note the information provided in "Technical details".
- ▶ Permitted per dual-pole input: max. 5 pressure-sensitive protective devices in series
- ▶ Max. area of pressure-sensitive protective device = 8 m²

Connection:



Technical Details

Technical details	
Certifications	CE, TÜV, UKCA, cULus Listed
Supply voltage U_B	From PNOZmulti
Voltage tolerance	80...125 %
Power consumption at U_B without load	Max. 0.1 W
Response time (from activation of the pressure-sensitive protective device until an instantaneous safety output drops out)	
▶ Semiconductor output	Max. 50 ms
▶ Relay output	Max. 70 ms
Max. area of pressure-sensitive protective devices per dual-pole input	8 m ²
Max. number of pressure-sensitive protective devices connected in series per dual-pole input	5
Max. cable length, PNOZmulti - pressure-sensitive protective device	100 m
Airgap creepage	DIN VDE 0110-1
Climatic suitability	DIN IEC 60068-2-3
EMC	EN 60947-5-3
Vibration to	EN 60068-2-6
▶ Frequency	10...55 Hz
▶ Amplitude	0.35 mm

Technical details

Ambient temperature	0...+60 °C
Storage temperature	-25...+70 °C
Protection type	
▶ Mounting area (e.g. control cabinet)	IP54
▶ Housing	IP20
▶ Terminals	IP20
Connection type	Spring-loaded terminals
Cross section of external conductor	
1 core	
▶ Flexible without crimp connectors	0.5 ... 1.5 mm²
▶ Flexible with crimp connectors, no plastic sleeve	0.5 ... 1.5 mm²
▶ Flexible with crimp connector and with insulating sleeve	0.5 ... 0.75 mm²
Housing material	
▶ Housing	PA 6 UL 94-HB
▶ Foot	PA 66 UL 94-V2
Dimensions H x W x D	96 x 48 x 43.5 mm (3.77" x 1.88" X 1.71")
Weight	83 g

The standards current in 2006 apply.

Order reference

Product type	Features	Order no.
PSEN im1	Interface	535130

▶ Support

Technical support is available from Pilz round the clock.

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21381-EN-03, 2023-03 Printed in Germany
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