

PSEN sl restart interlock


PSEN sensor technology

PILZ
THE SPIRIT OF SAFETY

This document is a translation of the original document.

All rights to this documentation are reserved by Pilz GmbH & Co. KG. Copies may be made for internal purposes. Suggestions and comments for improving this documentation will be gratefully received.

Pilz®, PIT®, PMI®, PNOZ®, Primo®, PSEN®, PSS®, PVIS®, SafetyBUS p®, SafetyEYE®, SafetyNET p®, the spirit of safety® are registered and protected trademarks of Pilz GmbH & Co. KG in some countries.

 SD means Secure Digital

Introduction	4
Validity of documentation	4
Using the documentation	4
Definition of symbols	4
Safety	5
Intended use	5
Safety regulations	6
Use of qualified personnel	6
Warranty and liability	6
Scope	6
Function description	6
Installation	7
Operation	9
Dimensions	11
Technical details	12
Order reference	12
EC declaration of conformity	13

Introduction

Validity of documentation

This documentation is valid for the product PSEN sl restart interlock. 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.

Safety**Intended use**

PSEN sl restart interlock is a mechanical add-on module for the safety gate system PSENslock. The add-on module prevents the gate from closing and locking, when carrying out maintenance work on the plant or machine for example.

The add-on module may only be activated and deactivated by qualified personnel, who are present within the danger zone. Unauthorised deactivation of the add-on module must be prevented by means of one or two padlocks (for properties see "[Technical details \[📖 12\]](#)").

The add-on module may only be used with the following PSENslock products:

- ▶ PSEN sl-0.5n 1.1/2.1/2.2
- ▶ PSEN sl-0.5p 1.1/2.1/2.2/3.1/4.1/4.2/6.1
- ▶ PSEN sl-1.0n 1.1/2.1/2.2
- ▶ PSEN sl-1.0p 1.1/2.1/2.2/3.1/4.1/4.2/6.1

**NOTICE**

If the guard locking module is activated and secured using the padlock, a person may be present within the danger zone. The hazardous function may not be started.

The following is deemed improper use in particular:

- ▶ Any component, technical or electrical modification to the product
- ▶ Use of the product outside the areas described in this manual
- ▶ Use of the product outside the technical details (see chapter entitled "[Technical details \[📖 12\]](#)").

Safety regulations

Use of qualified personnel

The products may only be assembled, installed, programmed, commissioned, operated, maintained and decommissioned by competent persons.

A competent person is someone who, because of their training, experience and current professional activity, has the specialist knowledge required to test, assess and operate the work equipment, devices, systems, plant and machinery in accordance with the general standards and guidelines for safety technology.

It is the company's responsibility only to employ personnel who:

- ▶ Are familiar with the basic regulations concerning health and safety / accident prevention
- ▶ Have read and understood the information provided in this description under "Safety"
- ▶ And have a good knowledge of the generic and specialist standards applicable to the specific application.

Warranty and liability

All claims to warranty and liability will be rendered invalid if

- ▶ The product was used contrary to the purpose for which it is intended
- ▶ Damage can be attributed to not having followed the guidelines in the manual
- ▶ Operating personnel are not suitably qualified
- ▶ Any type of modification has been made (e.g. exchanging components on the PCB boards, soldering work etc.).

Scope

- ▶ 1 x PSEN sl restart interlock, pre-assembled
- ▶ 2 x socket head cap screws M5x30, ISO 4762 8.8 ST zinc plated
- ▶ 2 x spring ring, DIN 127 B5 FST zinc plated
- ▶ 1 x one-way round head screw M5x30

Function description

The add-on module consists of a side section, which is fitted to the PSENSlock safety switch. A lever arm is attached to this side section. By swivelling this lever arm 90° in the direction of the gate frame, the lever arm is positioned between the actuator and the safety switch of the PSENSlock, thereby preventing the gate from closing.

The add-on module is delivered pre-assembled and may not be modified.

Installation



WARNING!

Function is overridden due to too short a distance or a foreign body between safety switch and actuator

Mechanical tolerances or an angular offset can reduce the distance between safety switch and actuator. As a result, the assured release distance may not be maintained despite the add-on module and the safety gate is detected as closed. This can result in serious bodily injury and death.

The distance between safety switch and actuator must be at least 15 mm and may not contain any foreign bodies.

After installation, check that the safety switch detects the safety gate as open and that the "Safety Gate" LED is extinguished when the add-on module is activated (see chapter entitled "Operation").

- ▶ Attach the side section using the provided socket head cap screws with the corresponding spring rings on the safety switch. If you wish to prevent the installation from being manipulated, replace one of the socket head cap screws with the one-way screw provided (see diagram).
- ▶ Fasten the screws with a torque setting of 5.5 Nm +/-0.5 Nm and protect the screws from working loose with a threadlocker (e.g. Loctite 2700).
- ▶ Comply with the maximum lateral offset for the actuator, as stated in the operating manual for the PSENSlock.

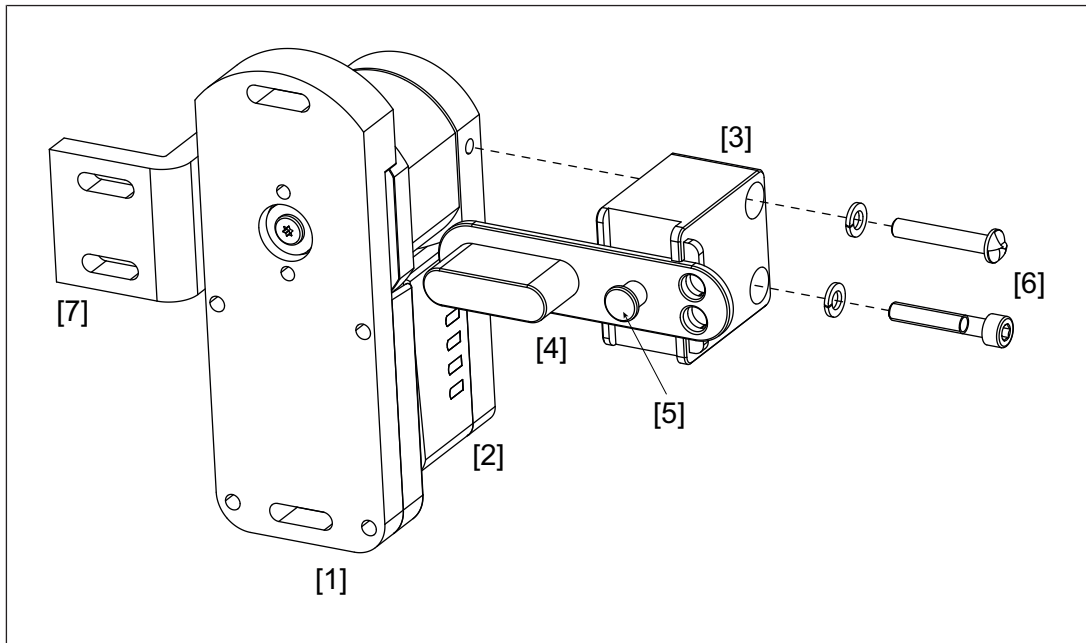


Fig.: Installing the side section - Exploded drawing

Legende

- [1] Actuator, installed on gate
- [2] Safety switch
- [3] Side section of add-on module
- [4] Lever arm
- [5] Knob
- [6] 1 x one-way screw and 1 x socket head cap screw with spring rings
- [7] Safety switch bracket on gate frame

Operation



WARNING!

Potential loss of safety function due to add-on module being unactivated and unsecured

If the add-on module is not activated correctly and not secured with the padlock, the safety gate can be closed unintentionally and the plant/machine can start up. This can result in serious bodily injury and death.

Before entering the danger zone, check that the guard locking device has clicked into place correctly and is secured with the padlock.

The add-on module is now ready for use and can be activated by following the steps below.

- ▶ Pull the knob and rotate the lever arm 90° between the safety switch and actuator (see diagram). Make sure that the lever arm locks into the 90° position.
- ▶ Attach a padlock to the lever arm. A maximum of two padlocks are possible.

The gate is not safely prevented from closing and locking until both these steps are completed.

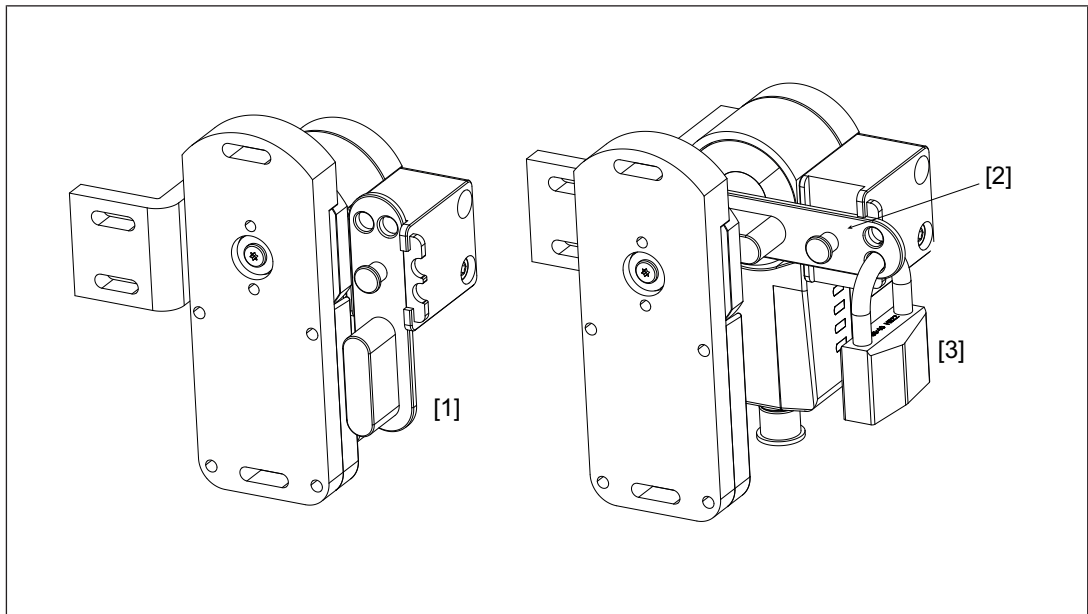


Fig.: View from gate side

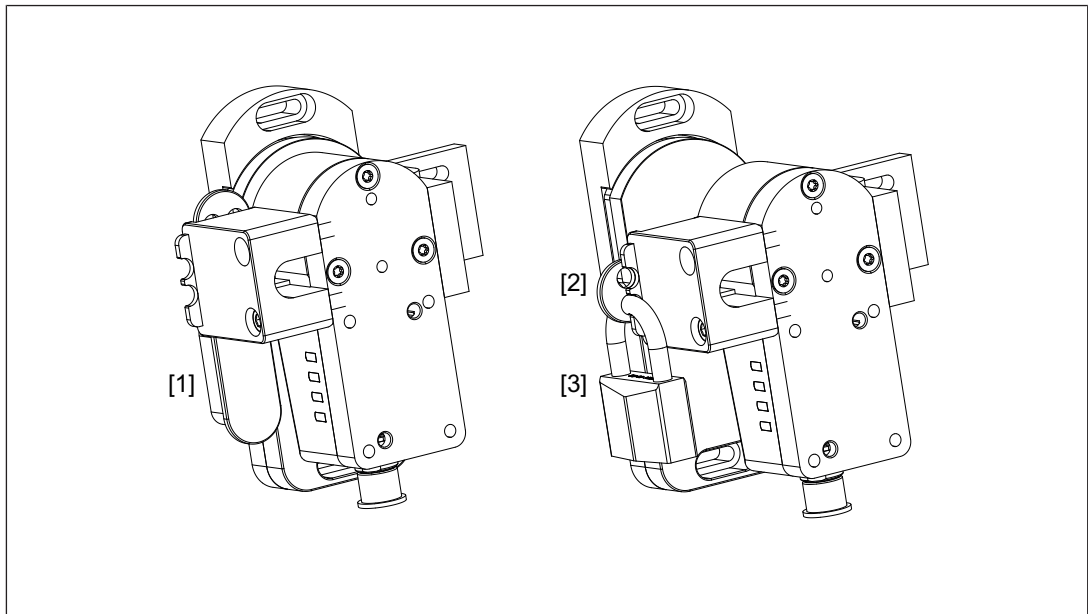


Fig.: View from outside

Legende

- [1] Lever arm, open
- [2] Lever arm, locked
- [3] Padlock

**NOTICE**

Before returning the plant/machine to service:
Remove the padlock, open the lever arm and close the safety gate.

**WARNING!**

Loss of safety function because the add-on module is defective

If the add-on module is damaged, the safety gate can be closed unintentionally and the plant/machine can start up. This can result in serious bodily injury and death.

Do not enter the danger zone if the add-on module shows signs of damage. Exchange the add-on module and check that it functions correctly before returning it to service.

Dimensions

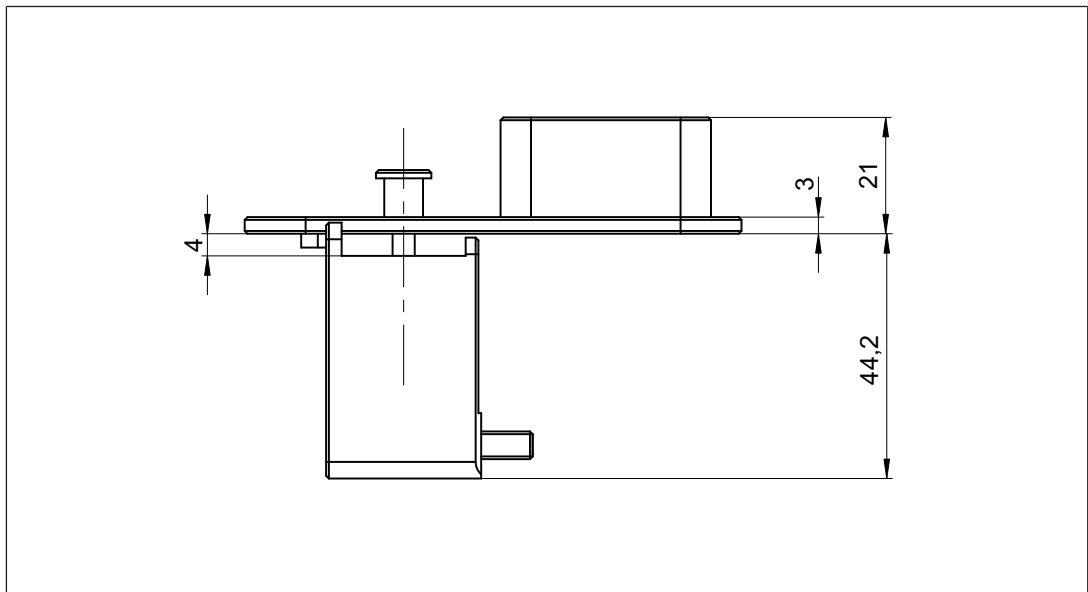


Fig.: Dimensions in mm, view from above

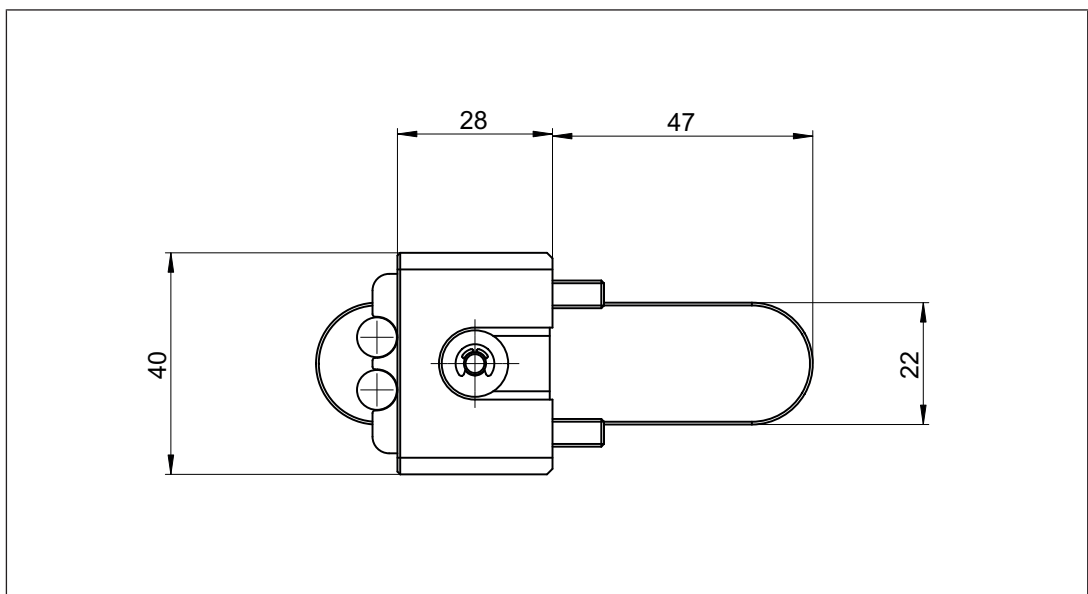


Fig.: Dimensions in mm, view of lever arm from rear

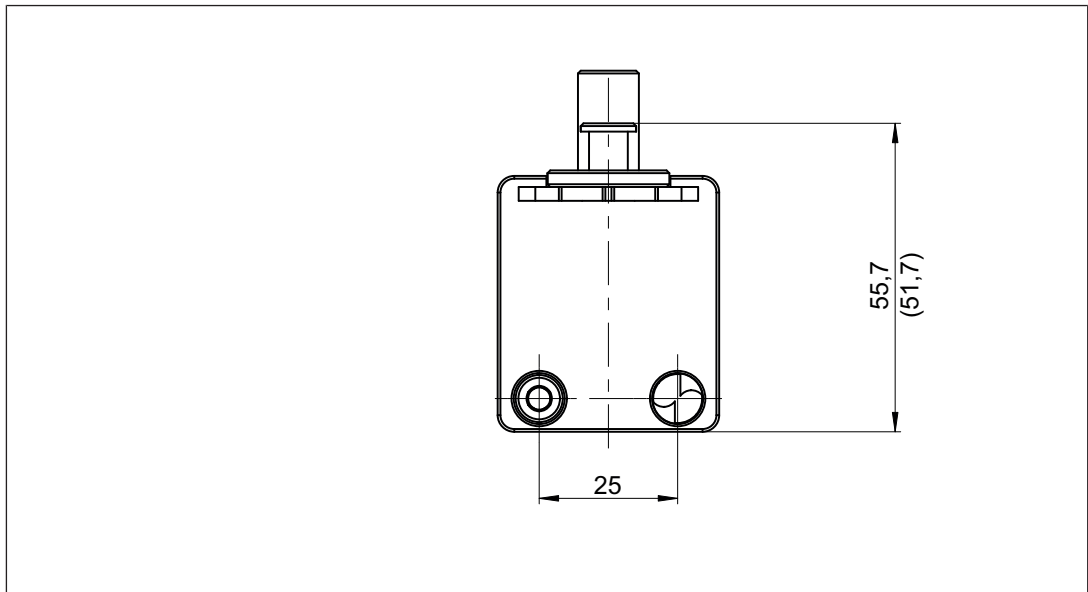


Fig.: Dimensions in mm, view of fixing screws

Technical details

General	
Approvals	-
Mechanical data	
Material	
Side section	Aluminium
Lever arm	Edelstahl 1.4301
Fixing screws torque settings	5,5 Nm +/-0,5 Nm
Dimensions	
Height of lever arm	21 mm
Lock shackle diameter min.	5 mm
Lock shackle diameter max.	7,1 mm
Lock shackle height min.	16 mm
Weight	200 g

Where standards are undated, the 2015-07 latest editions shall apply.

Order reference

Type	Features	Order No.
PSEN sl restart interlock	Add-on module for the safety gate system PSENslock	570 552

EC declaration of conformity

This product/these products meet the requirements of the directive 2006/42/EC for machinery of the European Parliament and of the Council. The complete EC Declaration of Conformity is available on the Internet at www.pilz.com/support/downloads.

Representative: Norbert Fröhlich, Pilz GmbH & Co. KG, Felix-Wankel-Str. 2, 73760 Ostfildern, Germany

► Support

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)

Asia

China
+86 21 60880878-216

Japan
+81 45 471-2281

South Korea
+82 31 450 0680

Australia

+61 3 95446300

Europe

Austria
+43 1 7986263-0

Belgium, Luxembourg
+32 9 3217575

France
+33 3 88104000

Germany
+49 711 3409-444

Ireland
+353 21 4804983

Italy
+39 0362 1826711

Scandinavia

+45 74436332

Spain

+34 938497433

Switzerland

+41 62 88979-30

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.



Partner of the Engineering Industry Sustainability Initiative



Pilz GmbH & Co. KG
Felix-Wankel-Straße 2
73760 Ostfildern, Germany
Tel.: +49 711 3409-0
Fax: +49 711 3409-133
info@pilz.com
www.pilz.com

PILZ
THE SPIRIT OF SAFETY