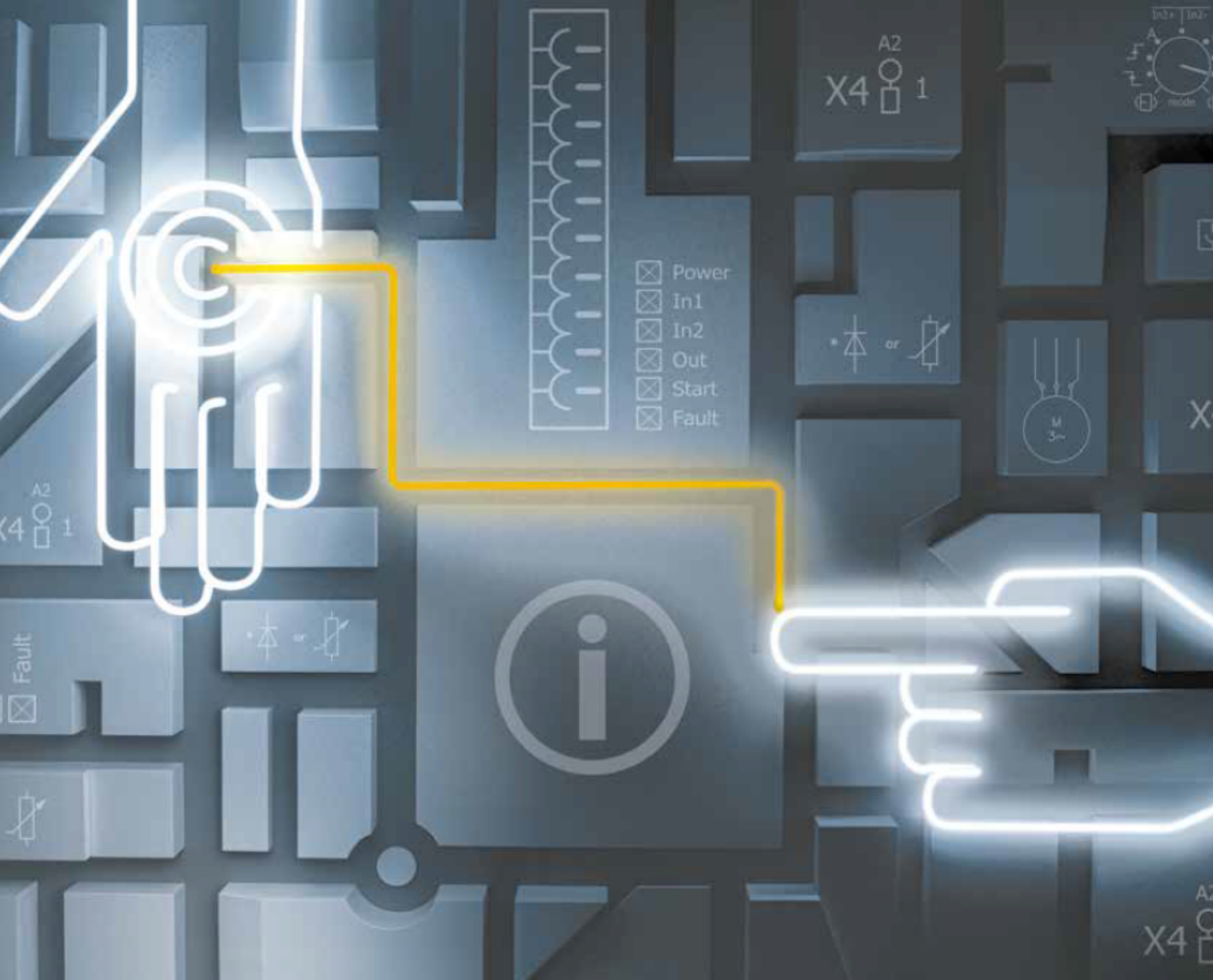




► PSEN sl restart interlock

PILZ
THE SPIRIT OF SAFETY

Operating Manual-22209-EN-03
- PSEN sensor technology



This document is the original document.

Where unavoidable, for reasons of readability, the masculine form has been selected when formulating this document. We do assure you that all persons are regarded without discrimination and on an equal basis.

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SD means Secure Digital

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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 guard locking devices PSENSlock or PSENSlock2. 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 one or two padlocks.



NOTICE

The padlock is **not** supplied with the device.

The padlock must be robust against being removed by manipulation (we recommend Class 4 in accordance with EN 12320), and must meet the requirements in the technical details (see "[Technical details](#) [ 13]").

The add-on module may only be used with the following safe guard locking devices:

- ▶ PSENSlock
 - 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
- ▶ PSENSlock2
 - PSEN sl2-DM1/2/3-N
 - PSEN sl2-DL1/2/3-N
 - PSEN sl2-DM1/2/3-P
 - PSEN sl2-DL1/2/3-P
 - PSEN sl2-IM1/2/3-P
 - PSEN sl2-IL1/2/3-P
 - PSEN sl2-GL1/2/3-P
 - PSEN sl2-GL1/2/3-S

All the details in the sections below for the product name "PSENSlock" apply to

- ▶ PSENSlock and
- ▶ PSENSlock2.

The application of the add-on module PSEN sl restart interlock is no different between the stated safety guard locking devices.



NOTICE

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

The following is deemed improper use in particular

- ▶ Any component or technical modification to the product,
- ▶ Use of the product outside the areas described in this operating manual,
- ▶ Use of the product outside the technical details (see [Technical details](#)  13]).

Safety regulations

Use of qualified personnel

The products may only be assembled, installed, programmed, commissioned, operated, maintained and decommissioned by persons who are competent to do so.

A competent person is a qualified and knowledgeable person who, because of their training, experience and current professional activity, has the specialist knowledge required. In order to inspect, assess and handle products, devices, systems, plant and machinery, this person must be familiar with the state of the art and the applicable national, European and international laws, directives and standards.

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 the section entitled Safety
- ▶ 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.

It is essential to comply with the angular and lateral offset stated in the PSENSlock operating manual.

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](#)  9).

- ▶ Attach the side section using the socket head cap screws provided and 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.

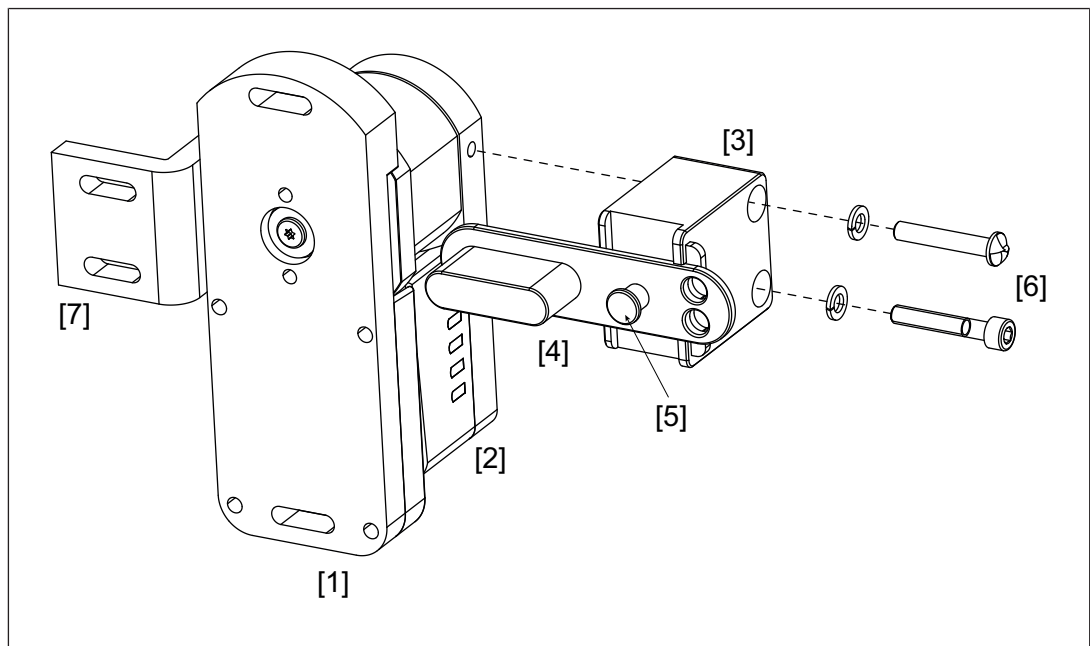


Fig.: Installing the side section - Exploded drawing

Legend

- [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 not being activated and secured

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.

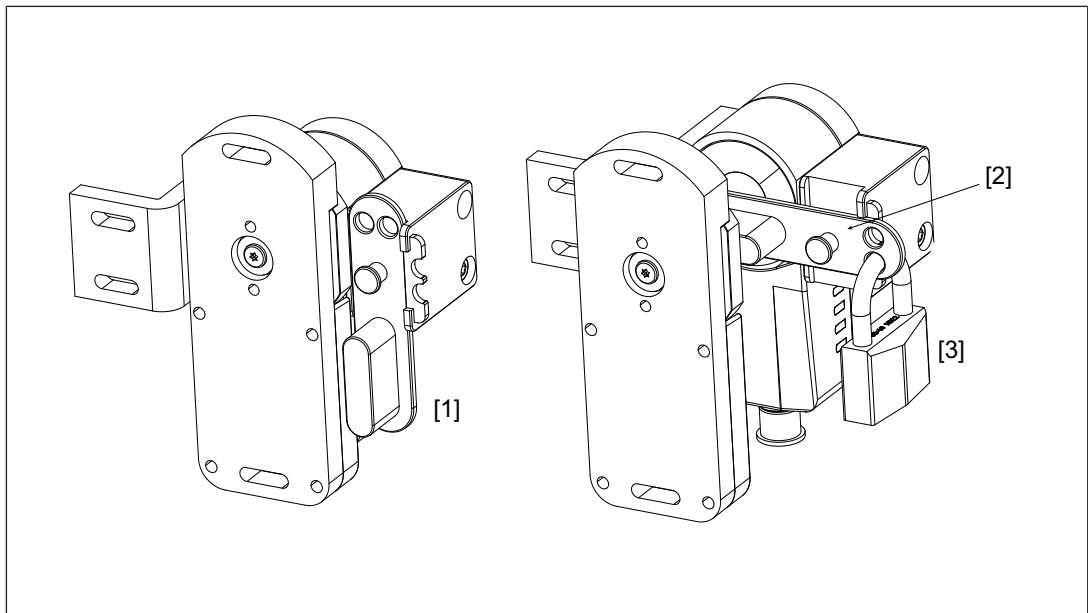


Fig.: View from gate side

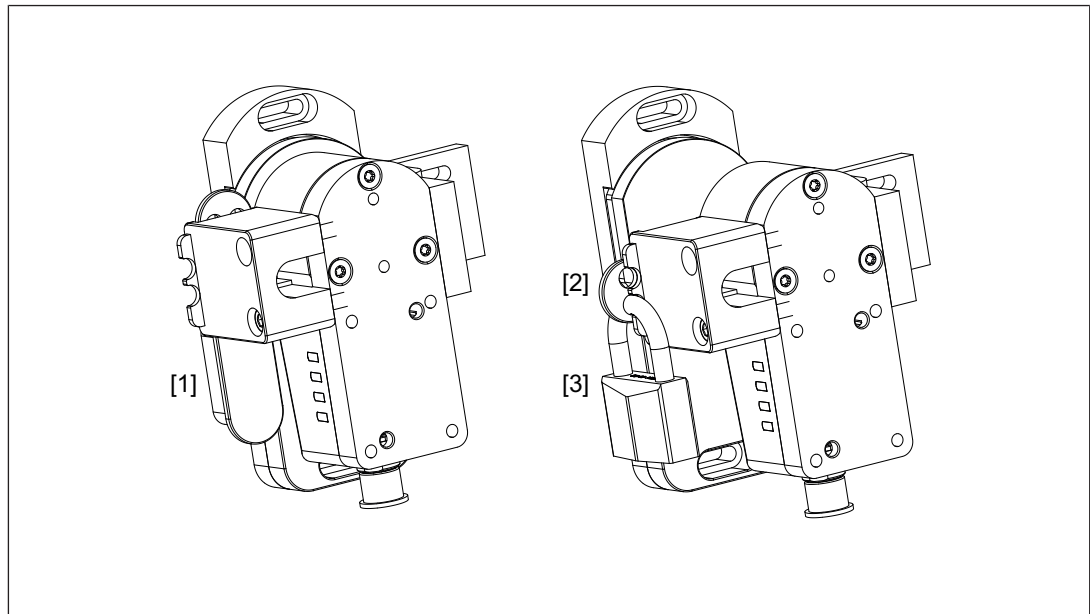


Fig.: View from outside

Legend

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

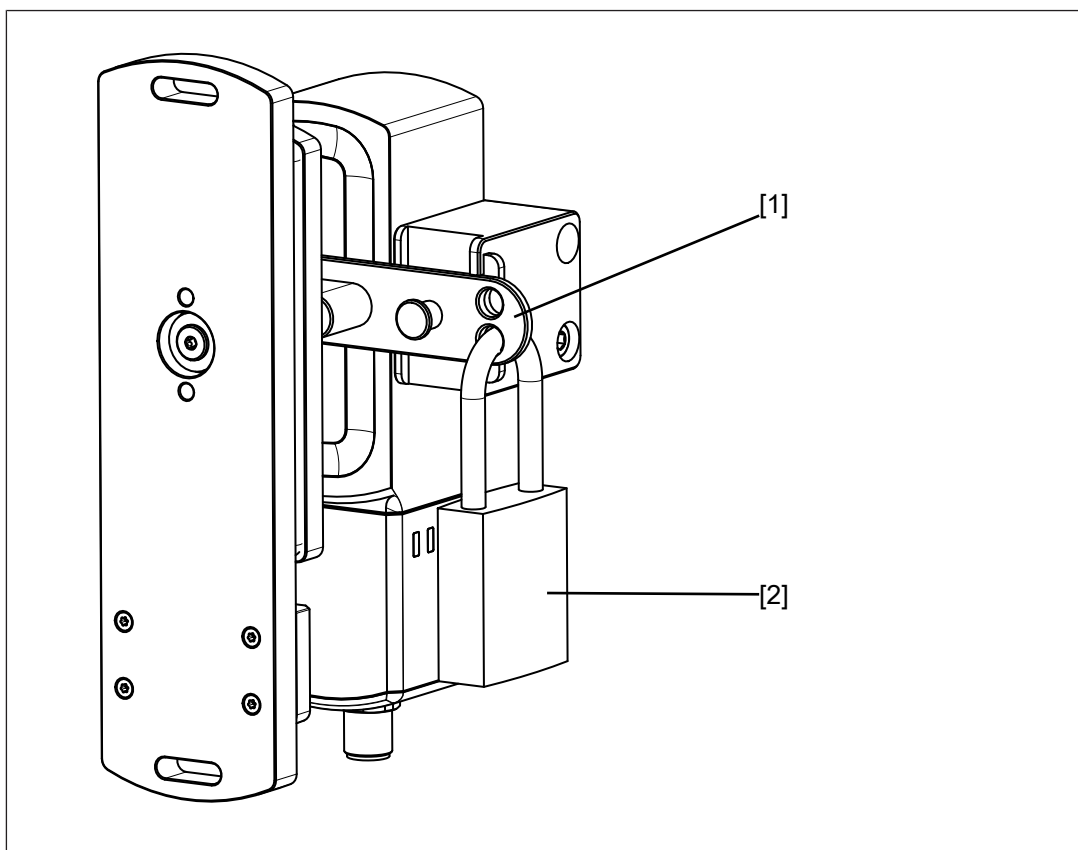


Fig.: Use of the PSEN sl restart interlock on a safety guard locking device PSEN sl2 with 2000 N locking force

Legend

- [1] Lever arm, locked
- [2] 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 it functions correctly before recommissioning.

Dimensions

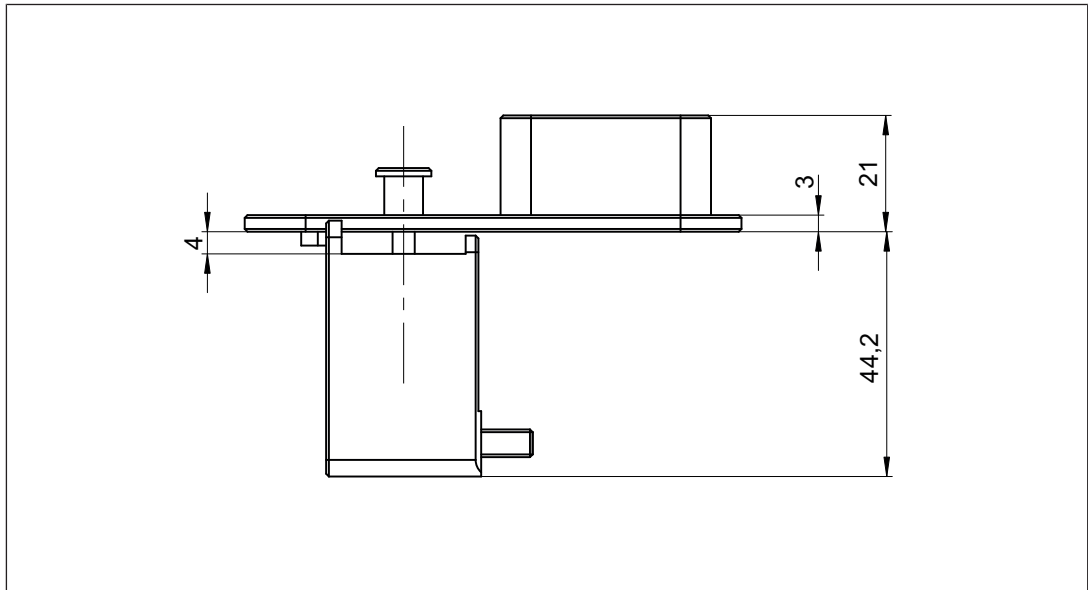


Fig.: Dimensions in mm, view from above

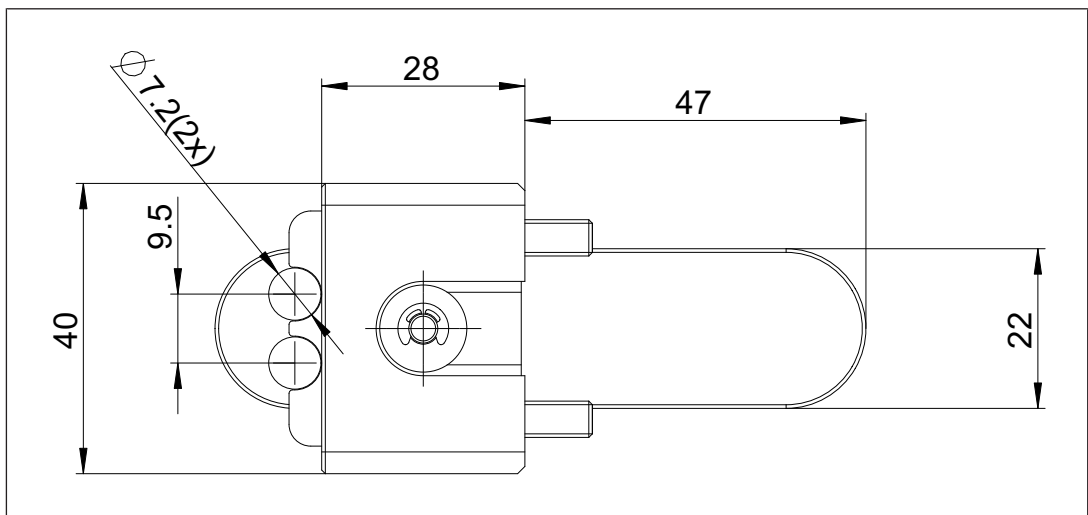


Fig.: Dimensions in mm, view of lever arm from rear

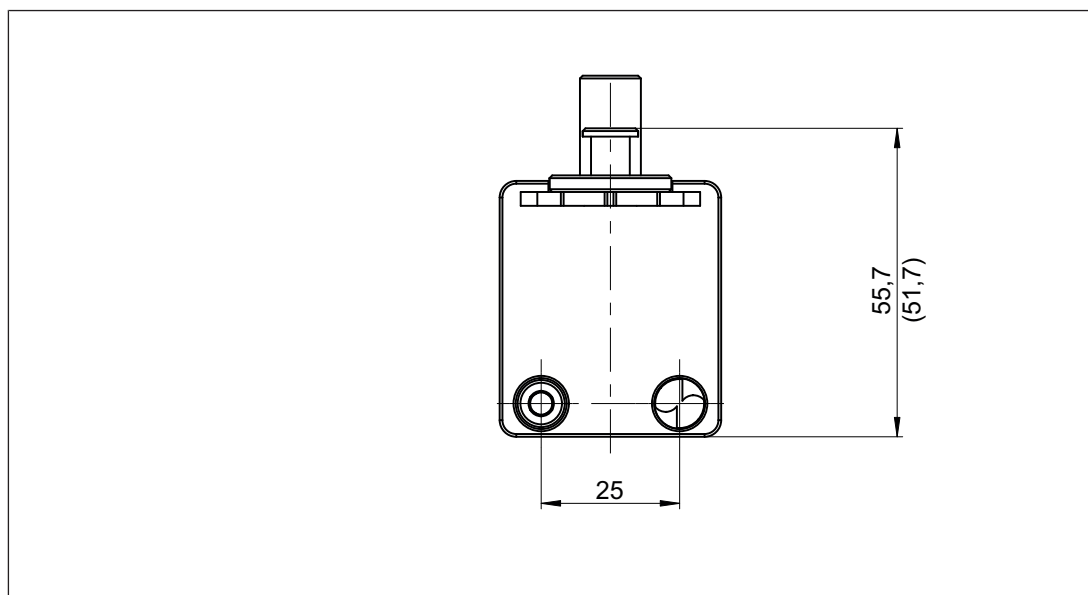


Fig.: Dimensions in mm, view of fixing screws

Technical details

General

Certifications -

Mechanical data

Material

Lever arm **Stainless steel 1.4301**

Side section **Aluminium**

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

Product type	Features	Order no.
PSEN sl restart interlock	Mechanical add-on module for attachment to a safety guard locking device, suitable for the safety guard locking devices PSENSlock and PSENSlock2, For use as restart interlock, to safeguard work carried out in the danger zone of a machine that has been shut down, Option to attach up to two padlocks for security.	570552

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.

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