



Visualisation; Diagnostics

Easy to Configure

Programming IEC 61131-3

Rapid Installation

PSEN b5/me5

PILZ

THE SPIRIT OF SAFETY

► PSEN sensor technology

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SD means Secure Digital

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Introduction

Validity of documentation

This documentation is valid for the product PSEN b5/me5. 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.

Overview**Scope****PSEN b5/me5**

- ▶ Gate mounting plate with bolt and handle, prepared for use of the escape release
- ▶ Frame plate with latch
- ▶ Adapter for installing PSEN me type actuator
- ▶ 2 one-way screws for fixing the actuator including the adapter
- ▶ 4 one-way screws for fixing the switch
- ▶ Washers and spring rings for installing the adapters

PSEN b5/me5 key adv

- ▶ Gate mounting plate with lock, 2 keys and spiral bracelet
- ▶ Frame plate with latch
- ▶ Adapter for installing PSEN me type actuator
- ▶ 2 one-way screws for fixing the actuator including the adapter
- ▶ 4 one-way screws for fixing the switch
- ▶ Washers and spring rings for installing the adapters

PSEN b5/me5/cs

- ▶ Gate mounting plate with bolt and handle, prepared for use of the escape release
- ▶ Frame plate with latch
- ▶ Adapter for installing PSEN cs type actuator
- ▶ Adapter for installing PSEN me type actuator
- ▶ 2 one-way screws for fixing the actuator including the adapter
- ▶ 4 one-way screws for fixing the switch
- ▶ Washers and spring rings for installing the adapters

PSEN b5/me5 key

- ▶ Gate mounting plate with lock, 2 keys and spiral bracelet
- ▶ Frame plate with latch
- ▶ Adapter for installing PSEN me type actuator
- ▶ 2 one-way screws for fixing the actuator including the adapter
- ▶ 4 one-way screws for fixing the switch
- ▶ Washers and spring rings for installing the adapters

Unit features

The bolt consists of a

- ▶ Gate mounting plate including bolt and handle, which is fastened to the safety gate,
- ▶ Frame plate, which is fitted to the safety gate frame,
- ▶ One-way screws for fixing the safety switches and the used actuators.

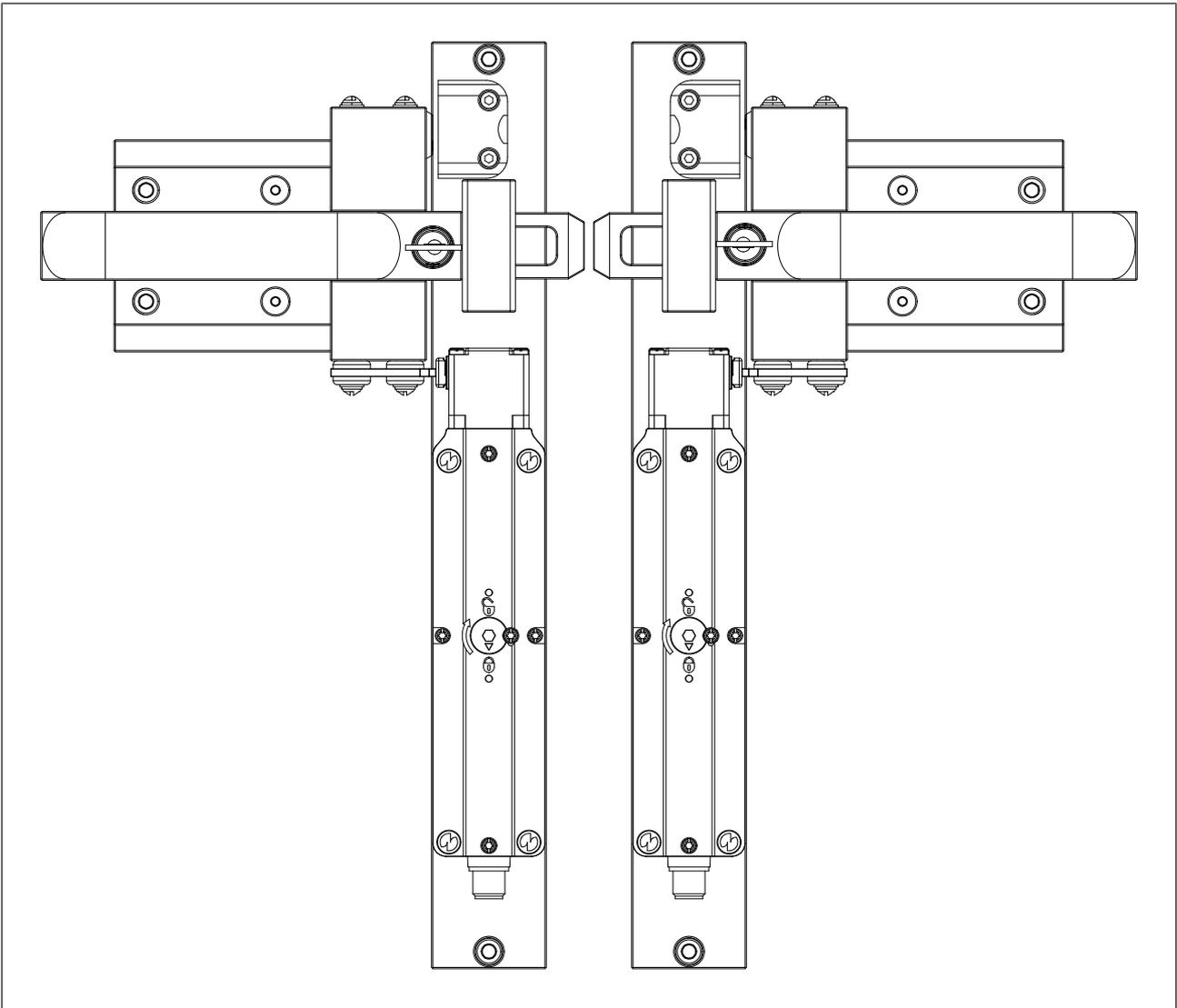


Fig.: Left: Bolt with safety switches assembled for left hinged gate;
 Right: Bolt with safety switches assembled for right hinged gate

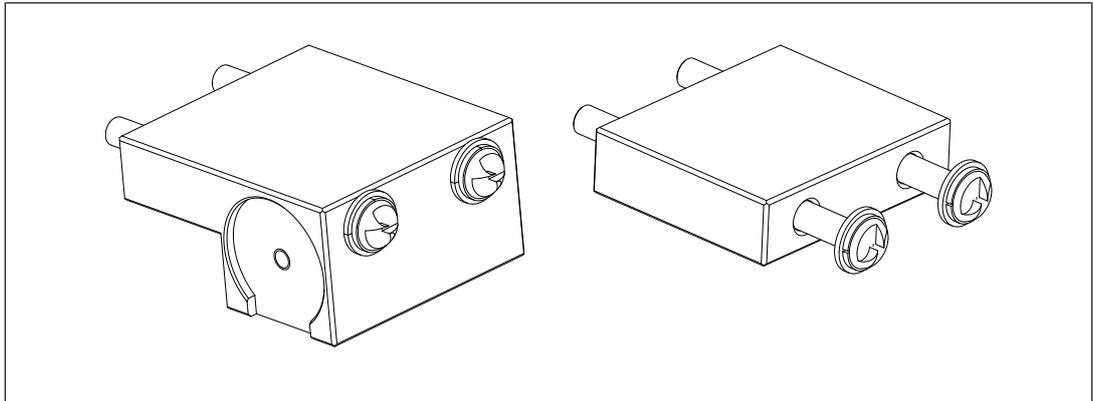


Fig.: Left: Adapter PSEN cs low profile; Right: Adapter PSEN me5

The PSEN cs or PSEN me type actuator is installed on the gate mounting plate using an adapter. The corresponding safety switch is installed on the frame plate. When the operator opens the safety gate, the safety switches are actuated simultaneously.

The bolt is suitable for right and left hinged gates. A max. of 6 padlocks may also be fitted through the slot hole on the bolt. This stops the bolt from being closed unintentionally or without authorisation.

The bolt is suitable for installing on standard aluminium profiles and machine enclosures.

PSEN b5/me5 key adv and PSEN b5/me5 key

The bolt in these systems can be locked in the open or closed position using the key supplied.

The key can only be removed in the locked state, irrespective of the status of the bolt (open or closed).

Please note when using PSEN me5 with escape release:

The installation of the escape release is described in the operating manual of the safety switch.

Safety

Please note:

- ▶ Do not use the safety switch and actuator as a limit stop.
- ▶ Always test the function with one of the approved evaluation devices.

Intended use

The bolt is used for mechanical guard locking in accordance with EN ISO 12100-2 and EN 14119.

It is designed for use as a mechanical interlock in conjunction with a safety switch of type:

- ▶ PSEN cs3.1
- ▶ PSEN cs4.1
- ▶ PSEN cs4.2
- ▶ PSEN me5

You may use only a low profile actuator as an actuator for a safety switch of type PSEN cs. The bolt may **not** be used on its own as a safety component without installed safety switch to avoid hazardous plant or machine statuses.

The bolt can also be protected by up to 6 padlocks from closing.

Possible combinations of safety switches

The bolt may be used in the following combinations with safety switches

- ▶ only with one safety switch PSEN cs
- ▶ only with one safety switch PSEN me5
- ▶ or with a safety switch PSEN cs in conjunction with a safety switch PSEN me5



INFORMATION

Depending on the performance level, it may be necessary to install a safety switch PSEN cs in addition to the safety switch PSEN me5.

The suitability of PSEN b5/me5 key and PSEN b5/me5 key adv in accordance with ISO TS 19837 must be checked depending on the application.

Installation



CAUTION!

Do not install the bolt until you have read and understood the operating instructions for the safety switches PSEN cs or PSEN me! Pay particular attention to the information on operating distances and installation. Make sure that you comply with the technical details!

Installing the gate mounting plate and frame plate



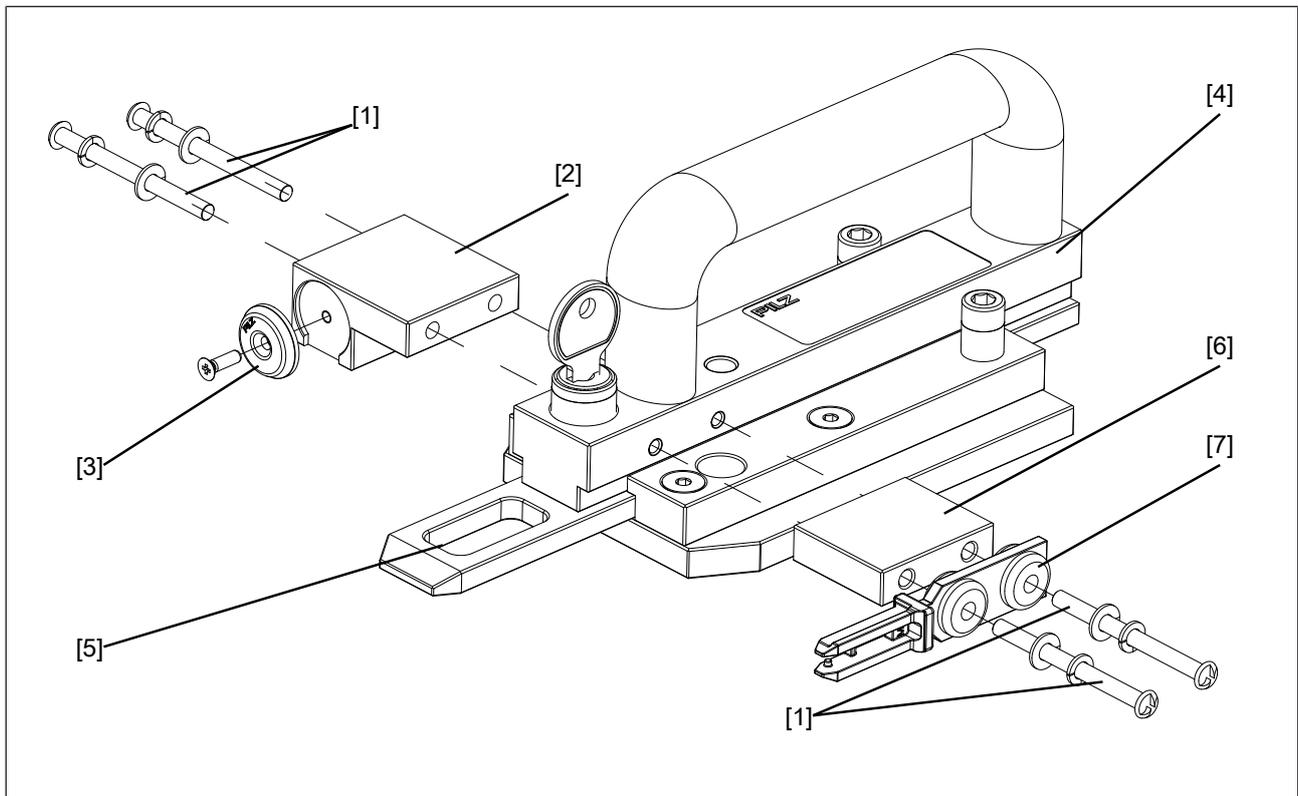
INFORMATION

Installation is only possible when the bolt is open!

During installation make sure that:

- ▶ The installation surface on the gate and gate frame is flat.
- ▶ The top edge of the gate mounting plate is offset against the top edge of the frame plate by 37 mm (see also Dimensions).

Install safety switches PSEN cs and PSEN me



Legend

- [1] One-way screws M4
- [2] Adapter for actuator PSEN cs low profile
- [3] Actuator PSEN cs low profile with fixing screw
- [4] Gate mounting plate with bolt and handle
- [5] Slot hole for attaching max. 6 padlocks
- [6] Adapter for actuator PSEN me5
- [7] Actuator PSEN me5

Installing the actuator

1. Install the two actuators [3] and [7] together with the corresponding adapters, as shown.
2. Screw the one-way screws and [1] as shown.

Installing the safety switches



INFORMATION

Please note the following when installing the PSENm safety switch:
Align the actuator head for a left or right-hinged gate prior to installation!
The necessary steps are described in the operating manual of PSEN me.

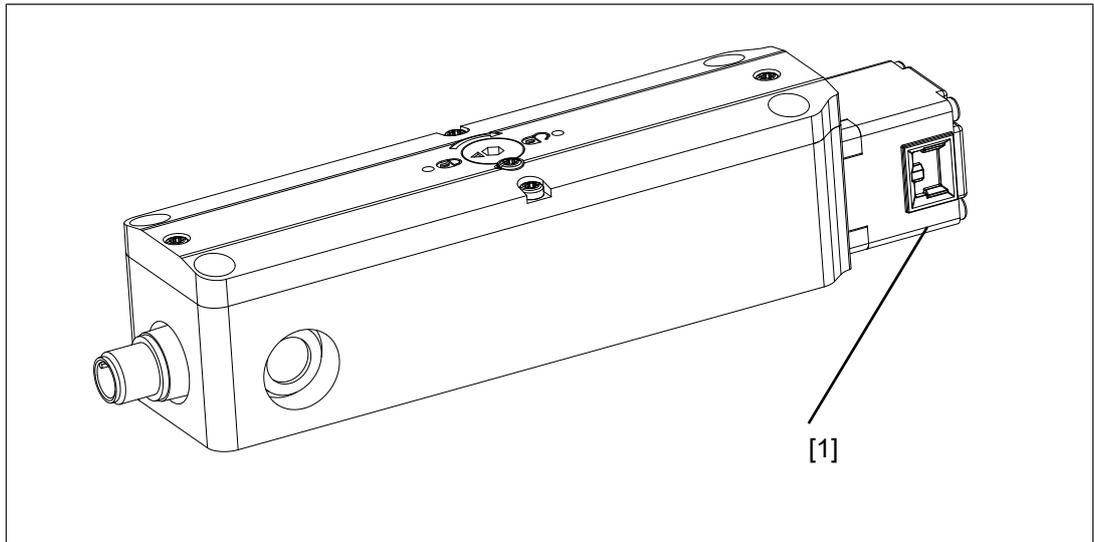
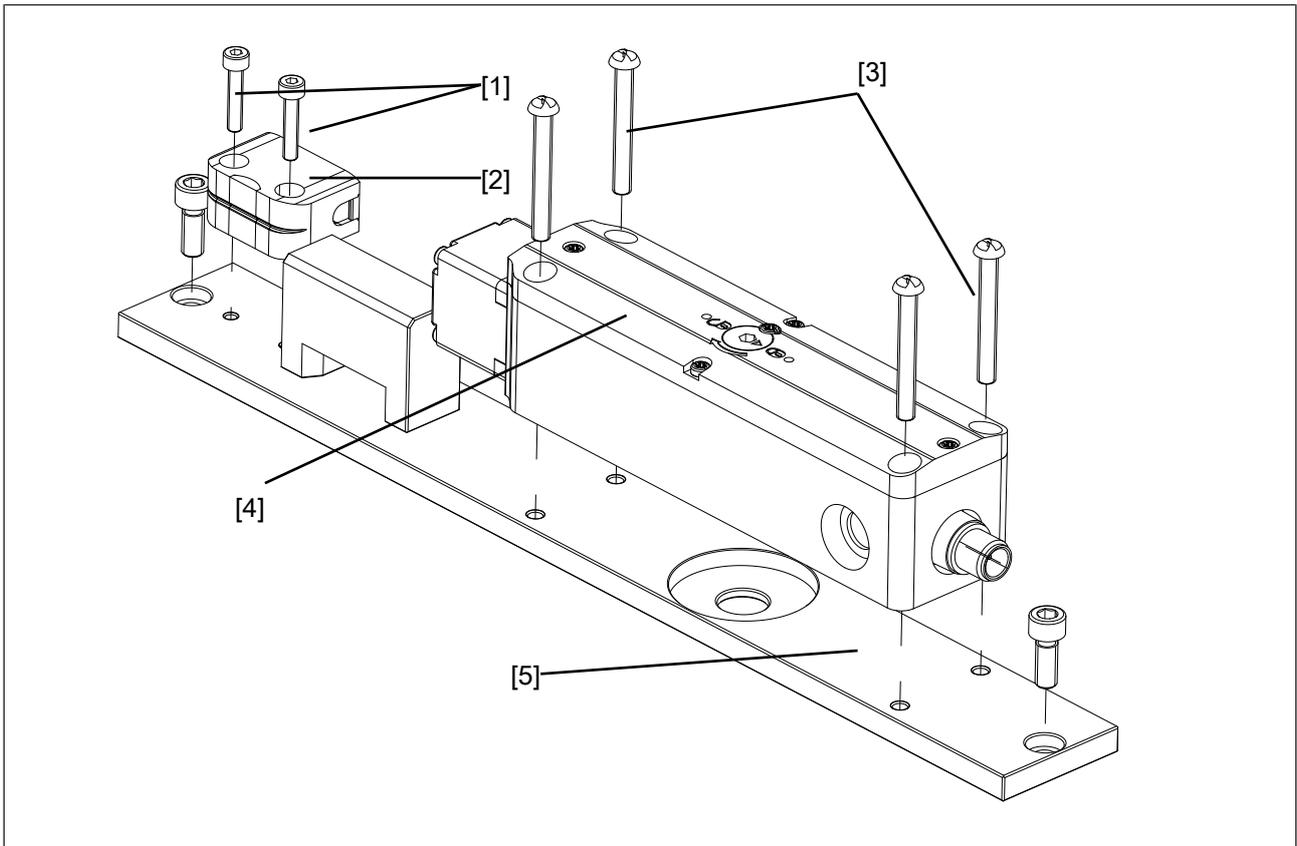


Fig.: Safety switch PSEN me5

Legend

[1] Actuator head



Legend

Safety switch PSEN cs

[1] Allen screw M4x10 (2x)

[2] Safety switch PSEN cs

Safety switch PSEN me5

[3] One-way screws M5x45 (4x)

[4] Safety switch PSEN me5

[5] Frame plate

► Install the safety switches [2] and [4] on the frame plate [5] as shown.

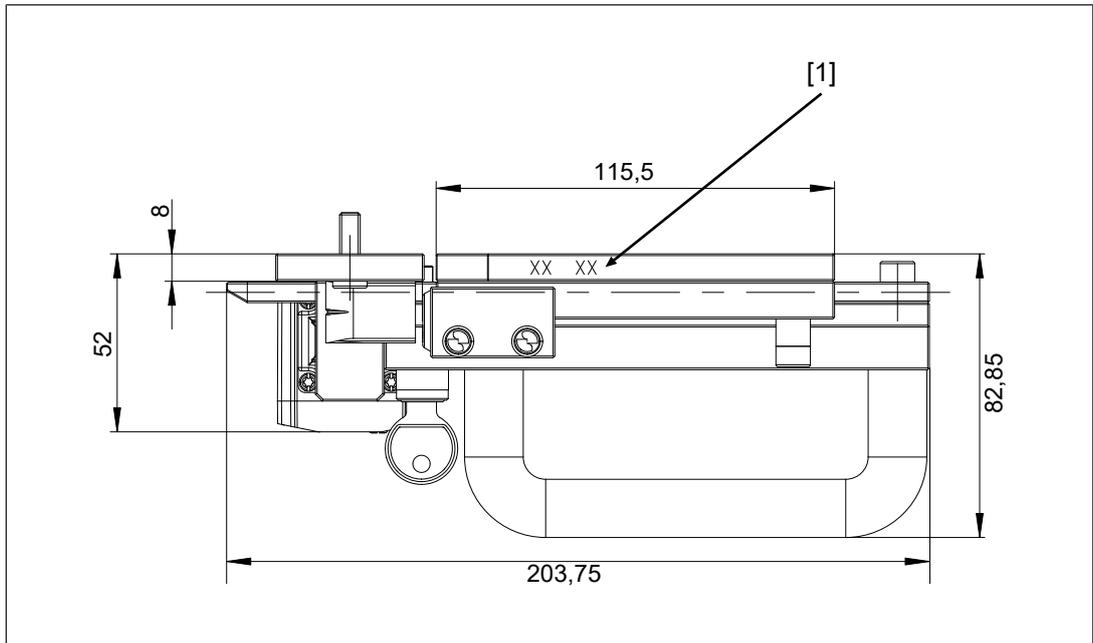


Fig.: Installation and dimensions for PSEN b5/me5, using a right hinged gate as an example

Legend

[1] Date of manufacture (month and the last two digits of the year)

Technical details order no. 6L000023-6L000024

General	6L000023	6L000024
Certifications	-	-
Environmental data	6L000023	6L000024
Ambient temperature		
Temperature range	-25 - 55 °C	-25 - 55 °C
Storage temperature		
Temperature range	-40 - 85 °C	-40 - 85 °C
Mechanical data	6L000023	6L000024
Escape release available	yes	yes
Operating mode escape release	Push	Push
Latching	Bolt latching	Bolt latching
Material	Aluminium, plastic, nickel-plated steel	Aluminium, plastic, nickel-plated steel
Weight	1.233 g	1.262 g

Technical details order no. 6L000025-6L000027

General	6L000025	6L000027
Certifications	-	-
Environmental data	6L000025	6L000027
Ambient temperature		
Temperature range	-25 - 55 °C	-25 - 55 °C
Storage temperature		
Temperature range	-40 - 85 °C	-40 - 85 °C
Mechanical data	6L000025	6L000027
Escape release available	yes	No
Operating mode escape release	Push	Push
Latching	Bolt latching	Bolt latching
Material	Aluminium, plastic, nickel-plated steel	Aluminium, plastic, nickel-plated steel
Weight	1.286 g	1.265 g

Order reference

Complete systems

Product type	Features	Order no.
PSEN b5/me5	Mechanical bolt for safety switch PSEN me5 with options for escape release	6L000023
PSEN b5/me5 key adv	Mechanical bolt for safety switch PSEN me5 with integrated lock and 2 keys, with options for escape release	6L000024
PSEN b5/me5/cs	Mechanical bolt for safety switch PSEN me5 and PSEN cs3/4 with options for escape release	6L000025
PSEN b5/me5 key	Mechanical bolt for safety switch PSEN me5 with integrated lock and 2 keys, without escape release	6L000027

Safety switch

Product type	Features		Order no.
PSEN me5S NC-NC-NC.NC 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle spring force contacts interlock 3 N/C contacts guard locking 1 N/C connection type terminal block	6L000010
PSEN me5M NC-NC-NC.NC 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle magnetic force contacts interlock 3 N/C contacts guard locking 1 N/C connection type terminal block	6L000011
PSEN me5S NC.NC-NC-NC 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle spring force contacts interlock 1 N/C contacts guard locking 3 N/C connection type terminal block	6L000012
PSEN me5M NC.NC-NC-NC 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle magnetic force contacts interlock 1 N/C contacts guard locking 3 N/C connection type terminal block	6L000013
PSEN me5S NC-NC-NO.NC 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle spring force contacts interlock 2 N/C, 1 N/O contacts guard locking 1 N/C connection type terminal block	6L000014

Product type	Features		Order no.
PSEN me5M NC-NC-NO.NC 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle magnetic force contacts interlock 2 N/C, 1 N/O contacts guard locking 1 N/O connection type terminal block	6L000015
PSEN me5S NC-NO.NC-NO 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle spring force contacts interlock 1 N/C, 1 N/O contacts guard locking 1 N/C, 1 N/O connection type terminal block	6L000016
PSEN me5M NC-NO.NC-NO 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle magnetic force contacts interlock 1 N/C, 1 N/O contacts guard locking 1 N/O, 1 N/C connection type terminal block	6L000017
PSEN me5S NC-NC-NC-NC 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle spring force contacts interlock 2 N/C, contacts guard locking 2 N/C connection type terminal block	6L000018
PSEN me5S NC-NC-NC M12/8 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle spring force contacts interlock 1 N/C, contacts guard locking 2 N/C, connection type 8-pin M12 male connector	6L000019
PSEN me5M NC-NC-NC M12/8 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle magnetic force contacts interlock 1 N/C, contacts guard locking 2 N/C, connection type 8-pin M12 male connector	6L000020
PSEN me5M NC.NC n 1 switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle magnetic force contacts interlock 1 N/C, contacts guard locking 1 N/C, connection type 5-pin M12 male connector	6L000021
PSEN me5S NC.NC n 1switch	Safety switch PSEN me5 for mechanical safety gate system	Interlock principle spring force contacts interlock 1 N/C, contacts guard locking 1 N/C connection type 5-pin M12 male connector	6L000022

Actuator

Product type	Features	Order no.
PSEN me5 AS	Standard actuator for safety switch PSEN me5	6L000001
PSEN me5 AA	Angle actuator for safety switch PSEN me5	6L000002
PSEN me5 AR	Radius actuator for safety switch PSEN me5	6L000003
PSEN me5 AF	Flexible actuator for safety switch PSEN me5	6L000004

Accessories**Secure safety gate systems**

Product type	Features		Order no.
PSEN cs3.1a/ PSEN cs3.1	Secure safety gate system, coded	Transponder technology	541011
PSEN cs3.1p/ PSEN cs3.1	Secure safety gate system, coded	Transponder technology	541010
PSEN cs3.1 M12/8-0.15m/PSEN cs3.1	Secure safety gate system, coded	Transponder technology	541009
PSEN cs3.1 M12/8-1.5m/PSEN cs3.1	Secure safety gate system, coded	Transponder technology	541014
PSEN cs3.1n/ PSEN cs3.1	Secure safety gate system, coded	Transponder technology	541003
PSEN cs4.1a/ PSEN cs4.1	Secure safety gate system, fully coded	Transponder technology	541111
PSEN cs4.1p/ PSEN cs4.1	Secure safety gate system, fully coded	Transponder technology	541110
PSEN cs4.1 M12/8-0.15m/PSEN cs4.1	Secure safety gate system, fully coded	Transponder technology	541109
PSEN cs4.1n/ PSEN cs4.1	Secure safety gate system, fully coded	Transponder technology	541103
PSEN cs4.2a/ PSEN cs4.1	Secure safety gate system, uniquely coded	Transponder technology	541211
PSEN cs4.2p/ PSEN cs4.1	Secure safety gate system, uniquely coded	Transponder technology	541210
PSEN cs4.2 M12/8-0.15m/PSEN cs4.1	Secure safety gate system, uniquely coded	Transponder technology	541209
PSEN cs4.2n/PSEN cs4.2	Secure safety gate system, uniquely coded	Transponder technology	541203

Escape release and extensions

Product type	Features	Order no.
PSEN me5 escape release front	Emergency release front for safety switch PSEN me5	6L000008
PSEN me5 escape release back	Emergency release back for safety switch PSEN me5	6L000009
PSEN me5 escape release	Escape release for safety switch PSEN me5	6L000005
PSEN b5/me5 escape pin	Pin for escape release for safety switch PSEN b5/me5	6L000026
PSEN me5 20mm extension	Extension escape release 20 mm for safety switch PSEN me5	6L000006
PSEN me5 40mm extension	Extension escape release 40 mm for safety switch PSEN me5	6L000007

► Support

Technical support is available from Pilz round the clock.

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