Non-contact, coded safety switches PSEN

PSEN cs3.1a

PSEN cs4.1p

PSEN cs1.1p

… Highest level of manipulation protection in the smallest space

PSENcode are used to monitor the position of guards in accordance with EN 60947-5-3 and also for general position monitoring.

With PSENcode you have the smallest, coded safety switch with integrated evaluation and built-in manipulation protection.

PSENcode achieves the highest level of manipulation protection by transmitting a unique code from the actuator to the switch (key lock principle).

Simple implementation saves time and money

Save costs, from project configuration through to commissioning: Used in conjunction with Pilz control technology, PSENcode provide a complete, co-ordinated solution that's economical and safe.

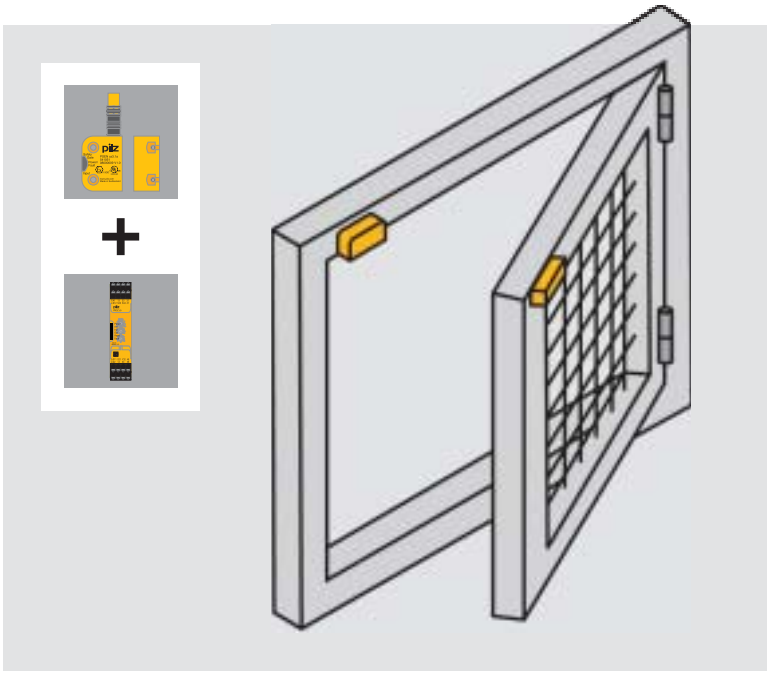
Thanks to integrated evaluation and standard interfaces, PSENcode are open to products from other manufacturers. They fit perfectly into your environment and can be used to upgrade your plant.

Type code for PSENcode

PSEN cs2.13p

Product area Pilz SENsors	Coding/design	ATEX	Connection/design
Product range cs – PSENcode	1.1 Coded, large design	_ Without ATEX	a ▸ Large design: Not available ▸ Compact design: Cable, 5 m
Operation ▸ Non-contact, coded ▸ Transponder (RFID) ▸ With safe semiconductor outputs	**2.1 Fully coded, large design** 2.2 Unique, fully coded, large design 3.1 Coded, compact design 4.1 Fully coded, compact design 4.2 Unique, fully coded, compact design	**3 With ATEX**	b ▸ Large design: Not available ▸ Compact design: Cable, 10 m n ▸ Large design: Connector, M12, 5-pin ▸ Compact design: Connector, M12, 5-pin **p ▸ Large design: Connector, M12, 8-pin** **▸ Compact design: Connector, M8, 8-pin**

code



The optimum solution: Monitoring swing gates using the PSENcode safety switch and PNOZsigma safety relay.

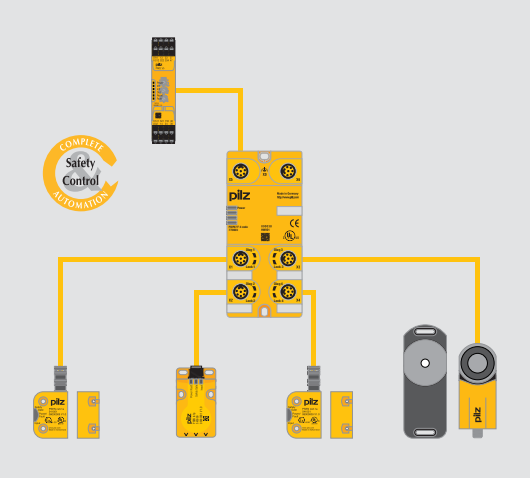
Your benefits at a glance

- Highest level of safety and plant availability
- Highest level of manipulation protection in the smallest space
- System comprises sensor and control system and is optimized for monitoring safeguards
- Simple project configuration, as the unit is highly versatile:
  - Insensitive to shock and vibration
  - Can be used with heavy soiling and strict hygiene regulations (IP67)
  - Flexible installation
- Economical:
  - Space-saving installation due to the compact housing
  - Highest level of safety, even in series with PSENcode, PSENini, PSENslock and PSENsgate

Highest level of safety in series

Save time and costs! The PSENcode can be connected to PNOZsigma safety relays and all other control systems via the passive junction PDP67. This complete solution can be used for applications up to PL e of EN ISO 13849-1 and up to SIL CL 3 of EN/IEC 62061.

Short, standard plug-in sensor cables provide fast, economical installation. The IP67 housing also saves you space in the control cabinet.



Keep up-to-date on non-contact, coded safety switches PSENcode:

Webcode 0365

Online information at www.pilz.com

Selection guide – PSENcode

Selection guide – Non-contact coded safety switches PSENcode

Common features

- Safety switches for monitoring the position of movable guards
- Approved for applications up to PL e of EN ISO 13849-1, SIL CL 3 of EN/IEC 62061 and Cat. 4 of EN 954-1
- Integrated evaluation and standard interfaces for connection to evaluation devices from Pilz or other manufacturers
- Series connection with PSENcode, PSENini, PSENslock, PSENsgate via PDP67 approved up to PL e of EN ISO 13849-1, up to SIL CL 3 of EN/IEC 62061 or up to Cat. 4 of EN 954-1
- Protection type IP67/IP69K
- Diagnostic interface with 3 LEDs
- Typical operating distance:
  - PSEN cs1/PSEN cs2: 21 mm
  - PSEN cs3/PSEN cs4: 10 mm
- Outputs: 2 safety outputs and 1 signal output
- Inputs: 2 safety inputs

PSEN cs3.1a

PSEN cs4.1p

PSEN cs1.1p

Type	Type of coding
PSEN cs3.1a/PSEN cs3.1	Coded [2]
PSEN cs3.1b/PSEN cs3.1	Coded [2]
PSEN cs3.1p/PSEN cs3.1	Coded [2]
PSEN cs3.1n/PSEN cs3.1	Coded [2]
PSEN cs3.1 M12/8-1.5m	Coded [2]
PSEN cs4.1a/PSEN cs4.1	Fully coded [3]
PSEN cs4.1b/PSEN cs4.1	Fully coded [3]
PSEN cs4.1p/PSEN cs4.1	Fully coded [3]
PSEN cs4.1n/PSEN cs4.1	Fully coded [3]
PSEN cs4.2a/PSEN cs4.1	Unique, fully coded [4]
PSEN cs4.2b/PSEN cs4.1	Unique, fully coded [4]
PSEN cs4.2p/PSEN cs4.1	Unique, fully coded [4]
PSEN cs4.2n/PSEN cs4.1	Unique, fully coded [4]
PSEN cs1.1p/PSEN cs1.1	Coded [2]
PSEN cs2.1p/PSEN cs2.1	Fully coded [3]
PSEN cs2.2p/PSEN cs2.1	Unique, fully coded [4]
PSEN cs1.13p/PSEN cs1.1	Coded [2]
PSEN cs2.13p/PSEN cs2.1	Fully coded [3]

Size	ATEX	Connection type	Number of directions		Order number [1]
			actuation	approach	
Compact		Cable, 5 m	1	4	541 001
Compact		Cable, 10 m	1	4	541 002
Compact		Connector, M8, 8-pin, pigtail, 25 cm	1	4	541 000
Compact		Connector, M12, 5-pin, pigtail, 25 cm	1	4	541 003
Compact		Connector, M12, 8-pin, pigtail, 150 cm	1	4	541 004
Compact		Cable, 5 m	1	4	541 101
Compact		Cable, 10 m	1	4	541 102
Compact		Connector, M8, 8-pin, pigtail, 25 cm	1	4	541 100
Compact		Connector, M12, 5-pin, pigtail, 25 cm	1	4	541 103
Compact		Cable, 5 m	1	4	541 201
Compact		Cable, 10 m	1	4	541 202
Compact		Connector, M8, 8-pin, pigtail, 25 cm	1	4	541 200
Compact		Connector, M12, 5-pin, pigtail, 25 cm	1	4	541 203
Large		Connector, M12, 8-pin	5	4	540 000
Large		Connector, M12, 8-pin	5	4	540 100
Large		Connector, M12, 8-pin	5	4	540 200
Large	◆	Connector, M12, 8-pin	5	4	540 005
Large	◆	Connector, M12, 8-pin	5	4	540 105

[1] Order number for safety switch and actuator (one unit)
[2] Coded = Switch accepts any PSENcode actuator
[3] Fully coded = Switch accepts only one PSENcode actuator, teach-in up to 8 times
[4] Unique, fully coded = Switch accepts only one PSENcode actuator, no teach-in facility
★ *Recommended type for the majority of applications*

Technical documentation on non-contact, coded safety switches PSENcode:

Webcode 0365

Accessories, supplementary products and services:

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Webcode 0326

Online information at www.pilz.com

Selection guide
PSENcode

Type Safety switch	Actuator	Operating distances s_{ao}/s_{ar}	Coding	LED
PSEN cs1.1p	PSEN cs1.1	15 mm / 21 mm	Coded	Power / Fault, Safety Gate, Input
PSEN cs1.13p ATEX	PSEN cs1.1	15 mm / 21 mm	Coded	Power / Fault, Safety Gate, Input
PSEN cs2.1p	PSEN cs2.1	15 mm / 21 mm	Fully coded (8 x teachable)	Power / Fault, Safety Gate, Input
PSEN cs2.13p ATEX	PSEN cs2.1	15 mm / 21 mm	Fully coded (8 x teachable)	Power / Fault, Safety Gate, Input
PSEN cs2.2p	PSEN cs2.1	15 mm / 21 mm	Fully coded	Power / Fault, Safety Gate, Input

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Selection guide
PSENcode

Type Safety switch	Actuator	Evaluation device	Connection to evaluation device	Page
PSEN cs1.1p	PSEN cs1.1	PNOZ X, PNOZelog, PNOZmulti, PSS with/without SafetyBUS p	Direct	2.3-9
PSEN cs1.13p ATEX	PSEN cs1.1	PNOZ X, PNOZelog, PNOZmulti, PSS with/without SafetyBUS p	Direct	2.3-2
PSEN cs2.1p	PSEN cs2.1	PNOZ X, PNOZelog, PNOZmulti, PSS with/without SafetyBUS p	Direct	2.3-23
PSEN cs2.13p ATEX	PSEN cs2.1	PNOZ X, PNOZelog, PNOZmulti, PSS with/without SafetyBUS p	Direct	2.3-16
PSEN cs2.2p	PSEN cs2.1	PNOZ X, PNOZelog, PNOZmulti, PSS with/without SafetyBUS p	Direct	2.3-30