

PSENmech



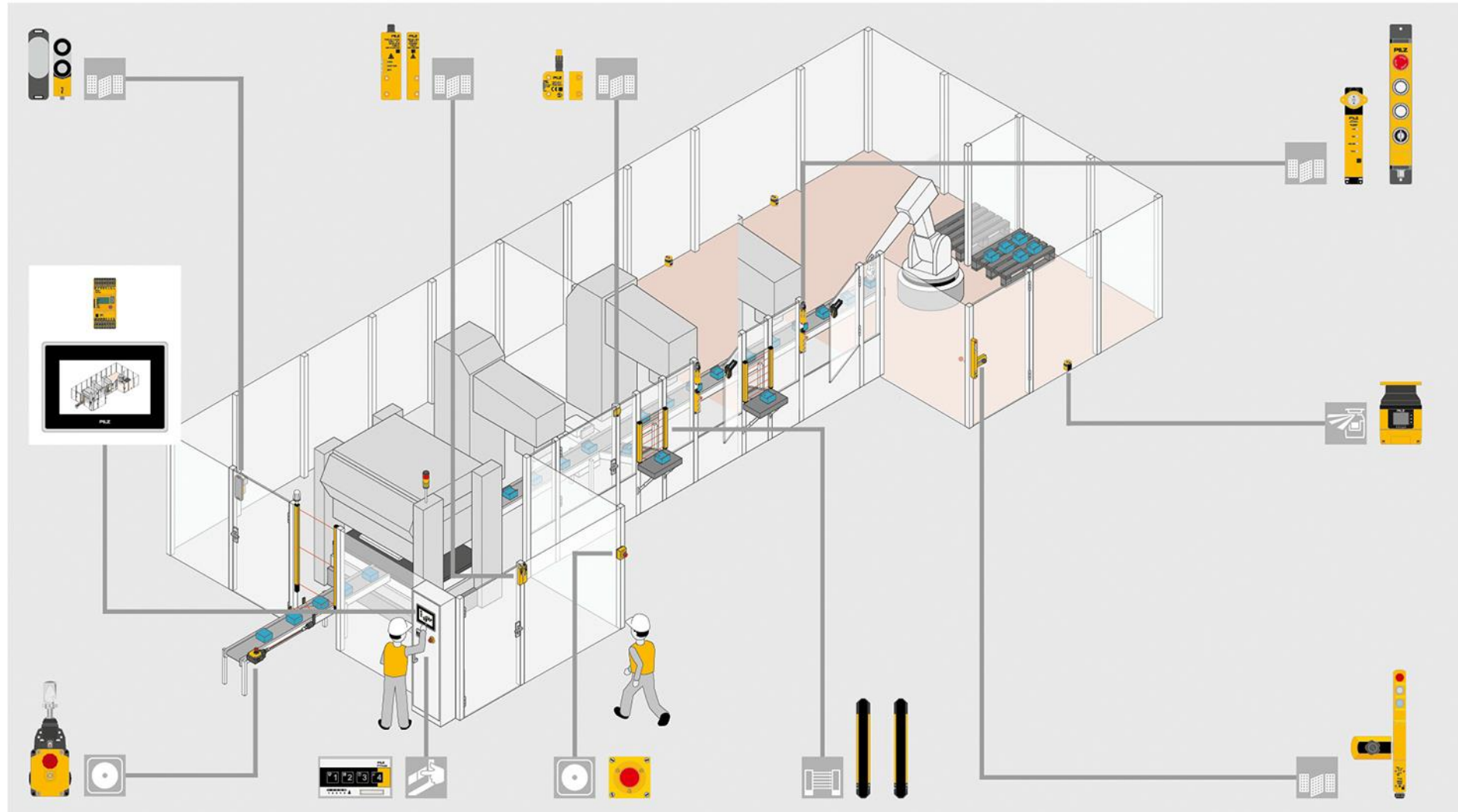
- ▶ Mechanical safety switch PSENmech
- ▶ Mechanical safety gate system PSENmech with guard locking function

Customer presentation

1. Overview
2. Mechanical safety switch PSENmech
3. Mechanical safety gate system PSENmech with access guarding
4. Complete solutions for safe automation

► 1. Overview

The safe solution for your application: sensor and control technology



► 1. Overview

Product illustration & product description



Brief characterization, technical details

- Two versions
 - Safety switch without guard lock function (PSEN me3, PSEN me4)
 - Safety gate system with guard lock function (PSEN me1, PSEN me5)
- Operating principle: Mechanical
- Monitors the position of movable guards in accordance with EN 60947-5-1
- Designed for applications up to PL e of EN ISO 13849-1, SIL CL 3 of EN/IEC 62061 (2 devices must be used for the highest requirements)
- Protection type: IP67 (PSEN me1/me5), IP65 (PSEN me3/me4)
- Directions of actuation: 5 (PSEN me1/me4/me5), 2 (PSEN me3)

► 1. Overview

Product illustration & product description

Product types

Type	PSEN me1, PSEN me5	PSEN me3, PSEN me4
Interlock	Spring force, magnetic force	-
Holding force	1500 N	-
Auxiliary release	Yes	-
Escape release	No (me1), yes (me5)	-
Emergency release	No (me1), yes (me5)	
Actuator type	Standard, radius, angled, flexible (me5)	Standard, radius
Extraction force	27 N (me1), <10 N (me5)	10 N, 50N
Contacts	4 contacts	2 or 3 contacts
Supply voltage	24 VAC/DC, 110... 230 VAC	240 V
Contact load	230 V/2.5 A (me1), 230 V/1.5 A (me5)	240 V/ 1.5 A, 240 V/3.0 A
- Utilization category (AC-15)		
- Conv. thermal current	5 A	5, 10 A

► 2. Mechanical safety switch PSENmech

Benefits at a glance

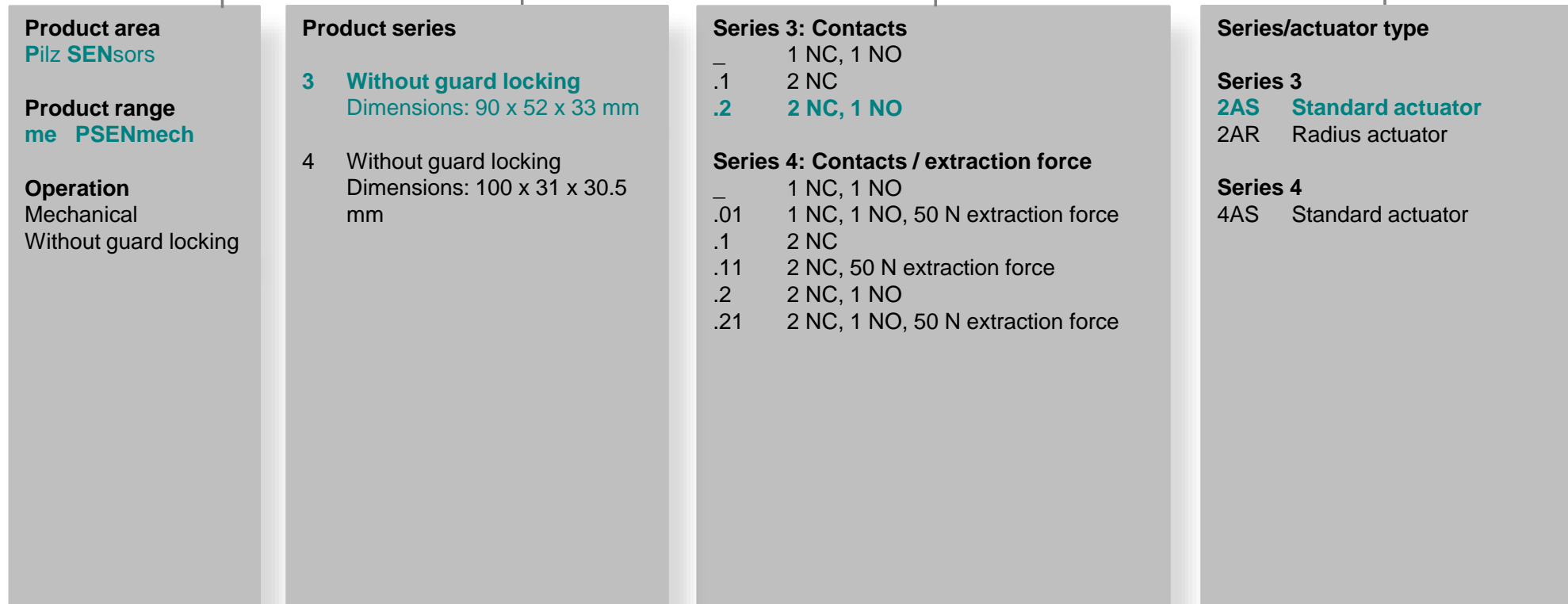


- ▶ Economical solution for safety gate monitoring
 - No additional accessories needed for latching
 - Ability to connect 230 V directly to the contacts
 - Series connection in the field is implemented directly within the switch
- ▶ Flexibility and speed during installation:
 - Various actuators
 - Multiple actuation directions
- ▶ Investment protection:
 - Long product service life due to the robust design and high mechanical load capacity
 - Housing is insensitive to dirt, dust-tight and waterproof
- ▶ Safe, complete solution: when combined with safe control technology

► 2. Mechanical safety switch PSENmech

Type code

P S E N m e 3 . 2 / 2 A S



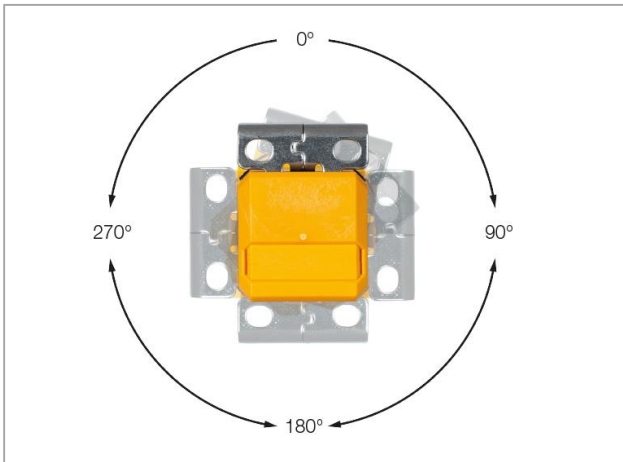
► 2. Mechanical safety switch PSENmech

Product in detail



Mechanical data:

- Directions of actuation: 2 (PSEN me3), 5 (PSEN me4)
- Extraction force: 10N, 50N
- Measures: 90 x 52 x 33 mm (PSEN me3), 100 x 31 x 30,5 mm (PSEN me4)
- Operating temperature: -25 ... +70°C
- Connection terminals: Spring-loaded terminals
- Protection type: IP 65

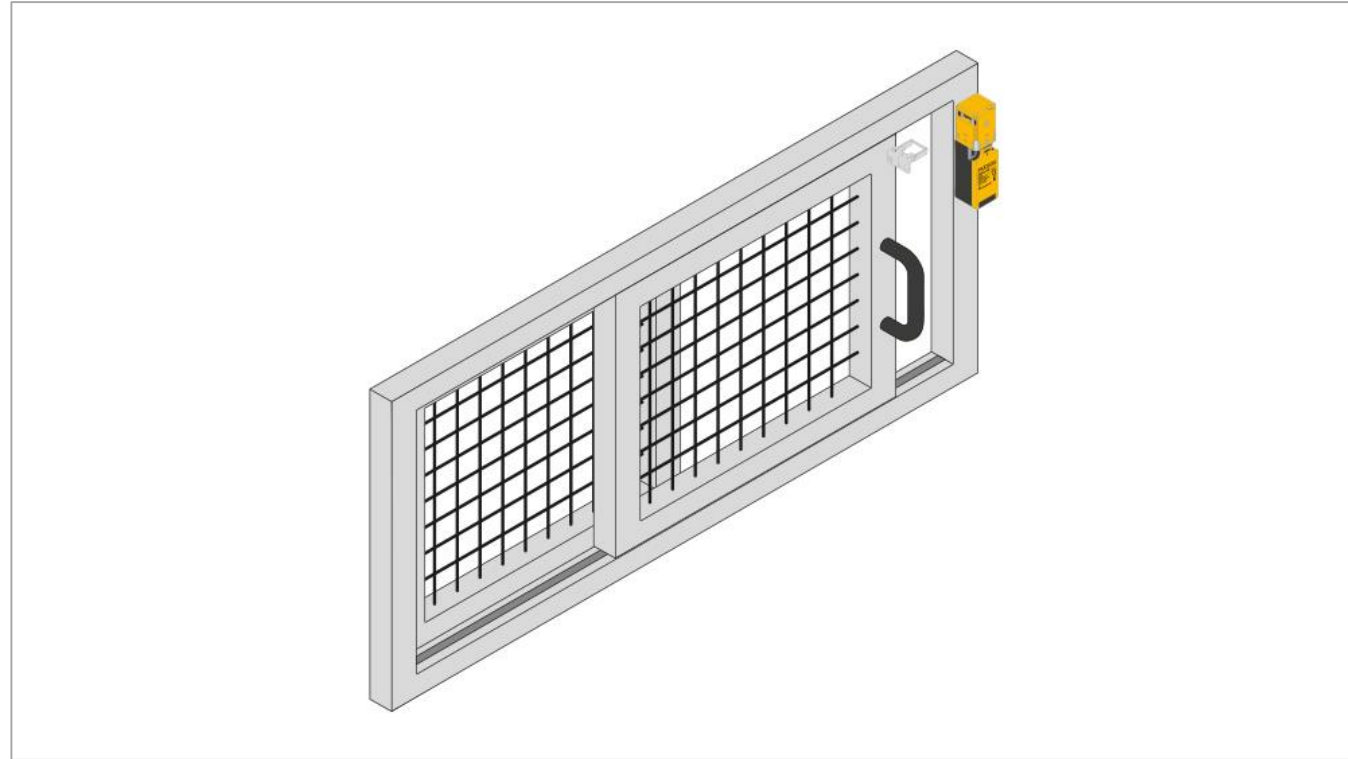


Electrical data:

- Contacts: 2 or 3
- Connection: open cable
- Supply voltage: 24 V DC/AC, 110 und 230 V AC

▶ 2. Mechanical safety switch PSENmech

Application example



The safe, complete solution: sensor and control technology from Pilz!

▶ 3. Mechanical safety gate system PSENmech

Comparison of safety gate systems

	PSENmech with guard locking function	PSENslock	PSENmlock	PSENsgate
Applications	Covers, flaps, swing and sliding gates	Covers, flaps, swing and sliding gates	Covers, flaps, swing and sliding gates	Swing and sliding gates
Operating principle	Electromechanical	Transponder technology	Transponder technology	Transponder technology
Guard locking principle	Normally de-energised mode, normally energised mode	Normally de-energised mode	Bistable principle ¹	Bistable principle ¹
Safety functions	Personnel protection, process protection	Process protection	Personnel protection, process protection	Personnel protection, process protection
Interlock classification in accordance with EN ISO 13849-1 (gate monitoring)	PL c, with fault exclusion PL d	PL e	PL e	PL e
Guard locking classification in accordance with EN ISO 13849-1 (guard locking monitoring)	PL c, with fault exclusion PL d	-	PL e	PL e
Holding force	1500 N	500 or 1000 N	7500 N	2000 N
Manipulation protection	Low	Up to high	Up to high	Up to high
Auxiliary release	Integrated	-	Integrated	Integrated ²
Escape release	Optional (only PSEN me5)	-	Optional	Integrated ²
Emergency release	Optional (only PSEN me5)	-	Optional (only for versions with power reset)	-

¹ Bistable principle: Power-ON applied for guard locking and power-ON released for guard locking

² Auxiliary release or escape release is mandatory on PSENsgate and must also be ordered.

▶ 3. Mechanical safety gate system PSENmech

Benefits at a glance



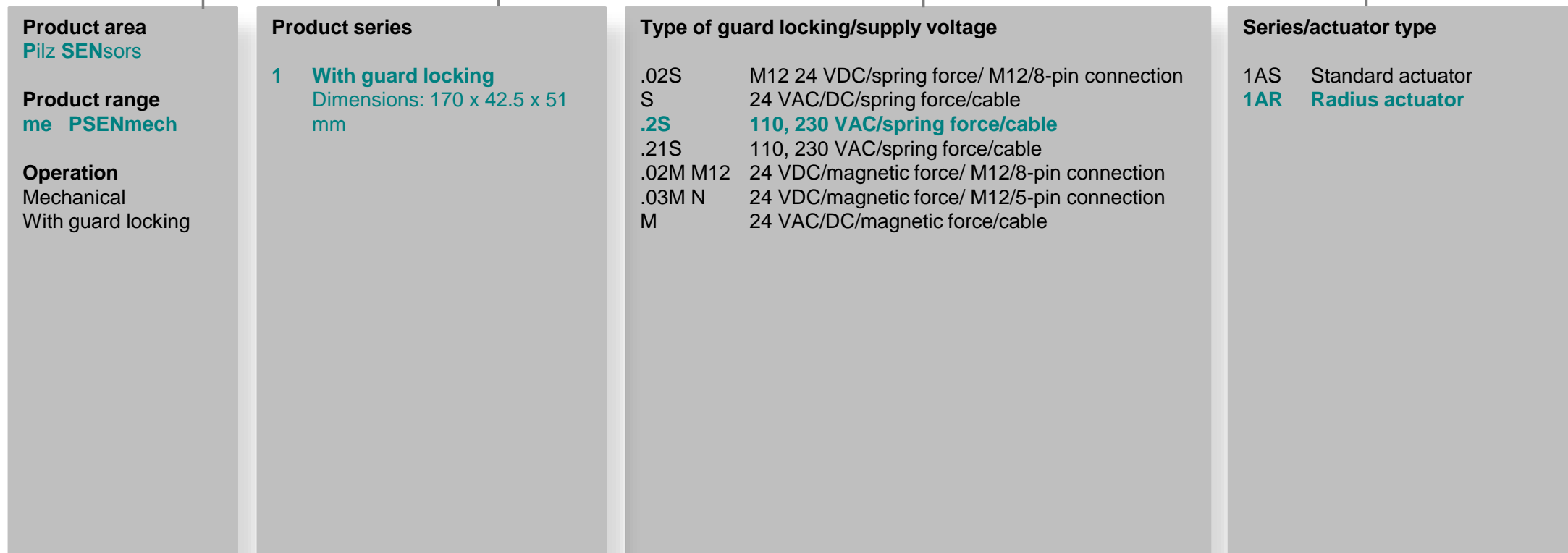
Safety gate system PSENmech – And the gate stays closed

- ▶ Economical solution for safety gate monitoring with safe guard locking
- ▶ Can be used for accessible gates thanks to escape release and emergency release
- ▶ Quick and flexible installation due to various actuators and M12 connection
- ▶ Long product service life thanks to the sensor head and 3D actuator out of metal
- ▶ Housing is insensitive to dirt, dust-tight and waterproof
- ▶ Can be connected to decentralized modules such as PDP67 or PSS67 due to M12, 5-pin product versions
- ▶ Safe, complete solution when combined with safe control technology, e.g. configurable safe small controller PNOZmulti 2

▶ 3. Mechanical safety gate system PSENmech

Type code (PSEN me1)

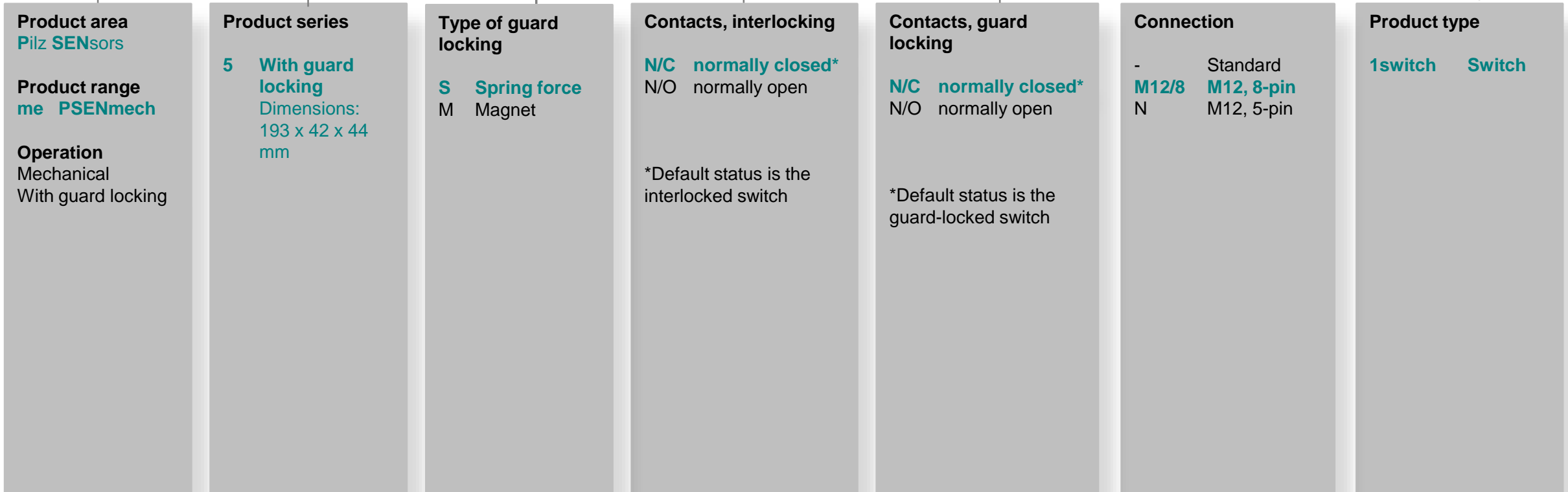
P S E N m e 1 . 2 S / 1 A R



▶ 3. Mechanical safety gate system PSENmech

Type code

PSEN me5S NC.NC-NC M12/8 1switch



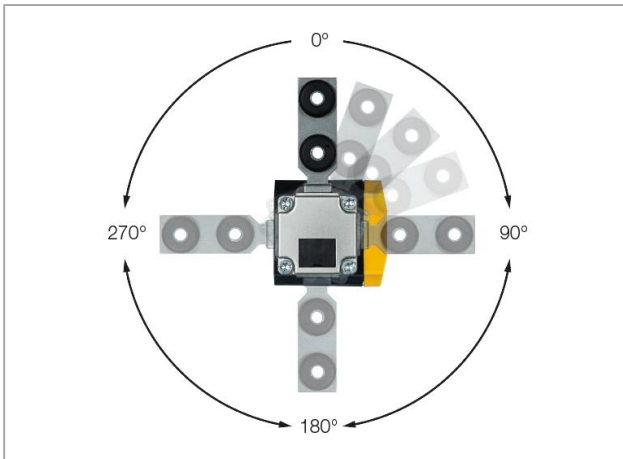
▶ 3. Mechanical safety gate system PSENmech

Product in detail



Mechanical data:

- ▶ Directions of actuation: 5
- ▶ Type of guard locking: Spring force, magnetic force
- ▶ Extraction force: 27 N (me1), <10 N (me5)
- ▶ Holding force: 1500 N
- ▶ Auxiliary release with spring force
- ▶ Escape release and emergency release (me5)
- ▶ Measures: 170 x 42,5 x 51,0 mm (PSEN me1), 193 x 42 x 44 (PSEN me5)
- ▶ Operating temperature: -25 ... 70°C (me1), -25... 55°C (me5)
- ▶ Connection terminals: spring loaded terminals (me1), screw terminals (me5)
- ▶ Protection type: IP 67



Electrical data

- ▶ Contacts: 4
- ▶ Connection: Standard, M12 5-pin, M12 8-pin
- ▶ Supply voltage: 24 V AC/DC, 110... 230 V AC, with M12 connection only 24V DC

▶ 3. Mechanical safety gate system PSENmech

Product in detail

Actuator



Standard actuator
PSEN me5 AS (6L000001)



Transverse actuator
PSEN me5 AA (6L000002)



Radius actuator
PSEN me5 AR (6L000003)



Flexible actuator
PSEN me5 AF (6L000004)

Escape release, emergency release



Emergency release front
PSEN me5 emergency release front
(6L000008)



Emergency release back
PSEN me5 emergency release back
(6L000009)

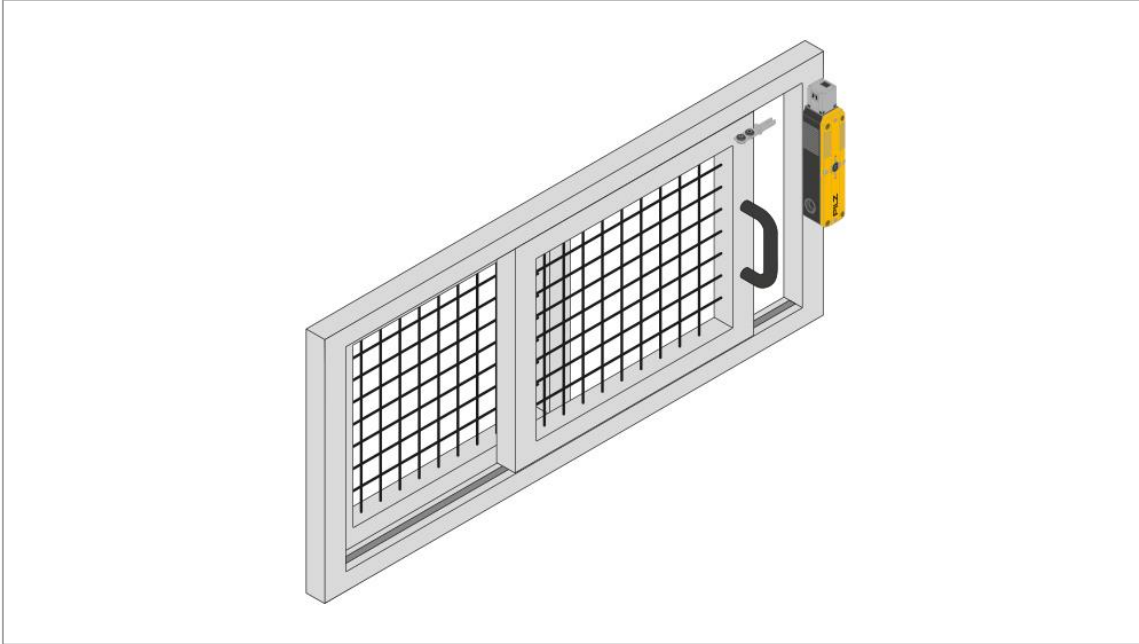


Base set for escape release
PSEN me5 escape release (6L000005)



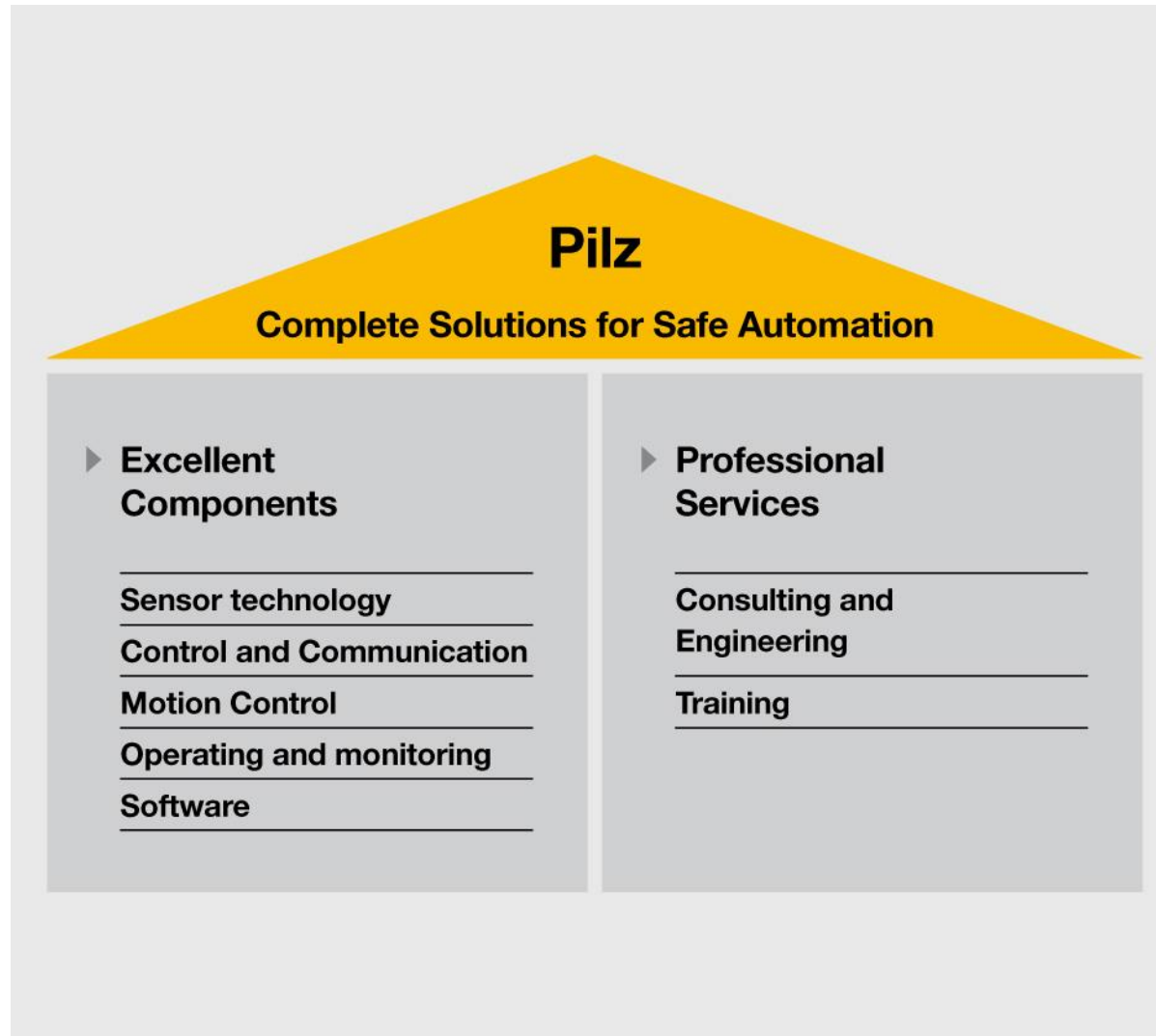
Expansion module 20 mm, 40 mm
PSEN me5 20mm extension (6L000006)
PSEN me5 40mm extension (6L000007)

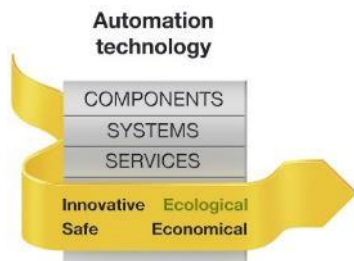
▶ 3. Mechanical safety gate system PSENmech Application example



The safe, complete solution: sensor and control technology from Pilz!

► 4. Complete solutions for safe automation





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