

Plastic encased safety interlocking switch

Type **PSEN me4**

Intended use

The plastic encased safety switches PSEN me4 with separate actuator are suitable for the mounting on safety guards. They are designated to trigger switching operations in control circuits.

Function

If the safety guard is opened the contact(s) with forced disconnection \ominus will break the safety control circuit (safety contacts get opened).



Safety instructions

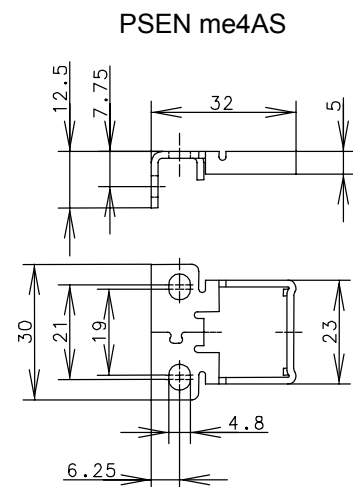
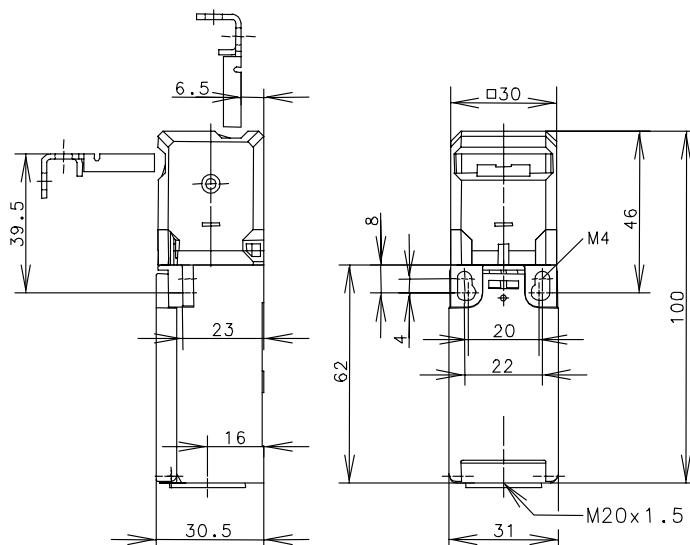


Improper installation or manipulation of the safety switch renders the personal protection function useless and can cause serious injury or accidental death.

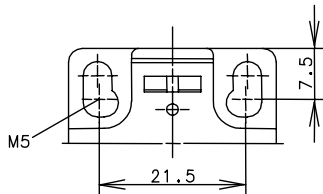
In order to maintain the maximum level of safety, always order and use actuators together with the correct safety switches.

Dimensions [mm]

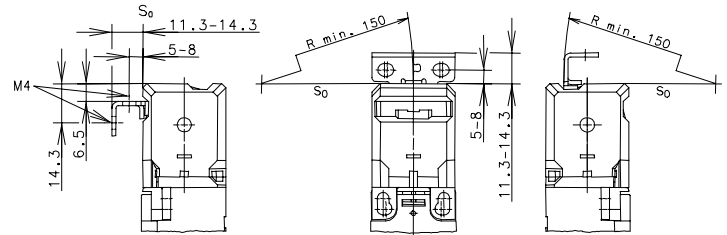
Actuator



Installation and Operating Instructions




Fixed positioning for safety applications (M5)



Minimum radii reference to a point of rotation on enclosure top edge S_0

Installation

 Installation by trained and qualified personnel only!

To mount the switch gear 2 screws M5 shall be used.

Actuator PSEN me4AS:

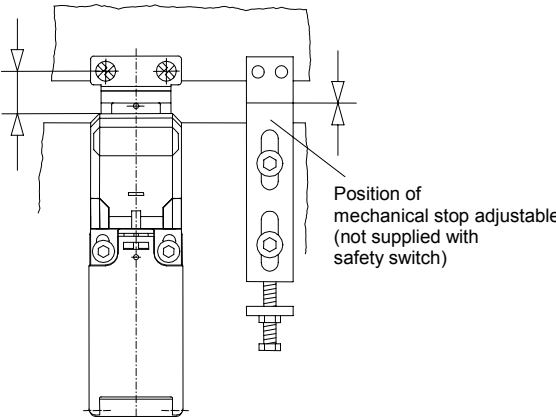
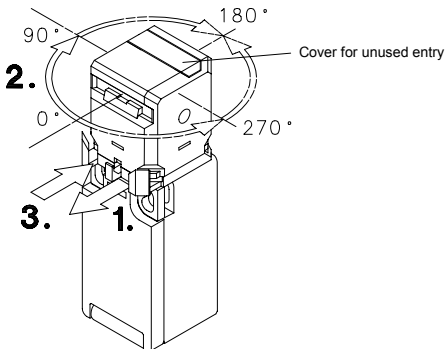
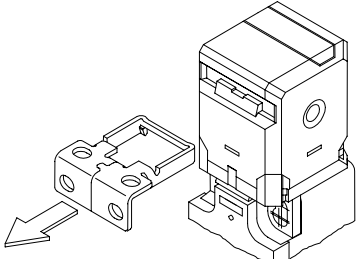
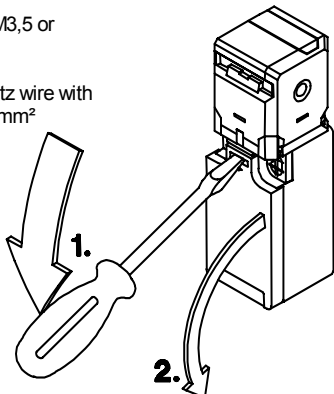
The user shall make sure that the actuator is form-fit mounted. The actuator mounting should not be solvable with simple tools. For a tamperproof mounting use one-way screws of M 4X8 size.

The switch and the actuator shall be aligned during installation in such a way that even after multiple actuations of the safety guard no lateral forces affect the actuator head.


The mounting position is any desired but shall support inspection and replacement if necessary by qualified personnel. Choose such a mounting position that no foreign parts seep into the opening of the actuating device.

The rated degree of protection (IP-Code) of the switch applies only with closed cover lid and when an at least evenly matched cable gland with adequate cable is used.

The switches shall not be used as mechanical end stop.

<p>The safety switch shall not be used as mechanical end stop!</p>  <p>Position of mechanical stop adjustable (not supplied with safety switch)</p>	<p>4 different directions of actuation by turning the cap from 0° to 270°:</p> <ol style="list-style-type: none"> 1. draw clasp out 2. turn actuator head 3. press-on clasp 
<p>Actuating forces (Extraction force):</p> <p>Standard = 10 N</p> <p>PSEN me4.01, PSEN me4.11, PSEN me4.21 = 50 N</p> 	<p>Connecting the cable:</p> <p>Connection type: 2 or 4 screw connectors M3,5 or 6 screw connectors M3 Conductor cross section: single core 0,5-1,5 mm²/litz wire with connector sleeve 0,5-1,5 mm²</p> 

Electrical connection

 The electrical connection shall only be carried out by trained and qualified personnel!

The electrical contacts of switches **PSEN me4**, **PSEN me4.01**, **PSEN me4.1** and **PSEN me4.11** feature 4 screw terminals M3,5.

Tightening torque $M = 0,8 \text{ Nm}$.

The electrical contacts of switches **PSEN me4.2** and **PSEN me4.21** feature 6 screw terminals M3.

Tightening torque $M = 0,6 \text{ Nm}$.

The connection requires a stranded wire with ferrule or a solid wire with a cross section of 0,5 – 1,5 mm².
For safety circuits acc. EN 60204 use the normally closed contact(s) (N.C.) only.

Installation and Operating Instructions

Electrical data		PSEN me4 PSEN me4.01 1 NO/1 NC (Zb)	PSEN me4.1 PSEN me4.11 2 NC (Zb)	PSEN me4.2 PSEN me4.21 1 NO/2 NC (Zb)
Switching function				
Switch symbol				
Rated insulation voltage	U_i	250 V AC	250 V AC	400 V AC
Conventional thermal current	I_{the}	10 A	10 A	5 A
Utilization category acc. IEC/EN 60947-5-1		AC-15, U_e/I_e 240 V/3A	AC-15, U_e/I_e 240 V/3 A	AC-15, U_e/I_e 240 V/1,5 A
Type of short-circuit protection		10 A gL/gG	6 A gL/gG	6 A gL/gG
Melting fuse acc. IEC/EN 60947-5-1, annex K				
Forced disconnection (N.C.)	\ominus	IEC/EN 60947-5-1		
Degree of protection		II, protective insulation		

Mechanical data	
Enclosure	Thermoplastic, glass fiber reinforced (UL94-V0)
Cover	Thermoplastic, glass fiber reinforced (UL94-V0)
Ambient air temperature	-30°C to +80°C, -22°F to +176°F
Cable entry	1 x M20x1,5
Protection class	IP65 acc. EN 60529; DIN VDE 0470 T1
Weight	≈ 0,13 kg

Actuating device		4AS
Actuator		Separate actuator (St stainless)
Actuating radius		≥ 150 mm
Extraction force		Standard 10 N
		PSEN me4.01, PSEN me4.11, PSEN me4.21 50 N
Mechanical life		1 x 10 ⁶ switching cycles
Mechanical life, extended actuation force		1 x 10 ⁵ switching cycles
Switching frequency		≤ 30/minute

Standards	
	VDE 0660 T100, DIN EN 60947-1, IEC 60947-1
	VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1
	GS-ET-15

EU-Conformity		CE
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Approvals	
	BG (applied for)
	UL/CSA A300 (applied for) for PSEN me4, PSEN me4.01, PSEN me4.1, PSEN me4.11
	UL/CSA B300 (applied for) for PSEN me4.2, PSEN me4.21

Start-up

Mechanical function test:

Actuate the safety guard und check the proper switching function.

Electrical function test in the safety control circuit:

- Opening the safety guard shall break off the energy of the drive.
- The drive shall only be energized when the safety guard is in its closed position.

Maintenance / Inspection

The switching device is maintenance-free. For trouble-free operation and a long service life the device should be inspected regularly. Ensure that:

- all components are secure and tight
- switching functions operate properly
- all sealing gaskets are in proper condition
- the components show no signs of tear and wear.

If defects are detected the complete switching device and the actuator have to be replaced.

Liability disclaimer

By breach of the given instructions (concerning the intended use, the safety instructions, the installation and connection through qualified personnel and the testing of the safety function) any liability expires.