

Installation and adjustment

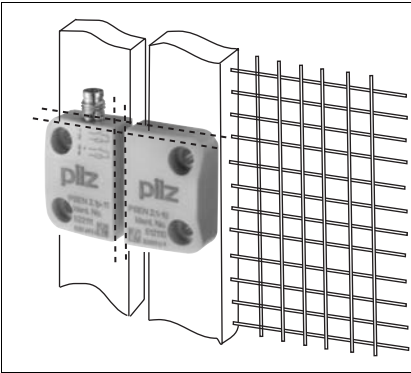
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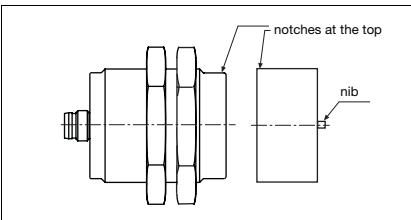
Installation position

The unit can be installed in any position. However, the sensing faces of the safety switch and actuator should be positioned opposite each other in parallel. Operating distances may deviate if other arrangements are used.

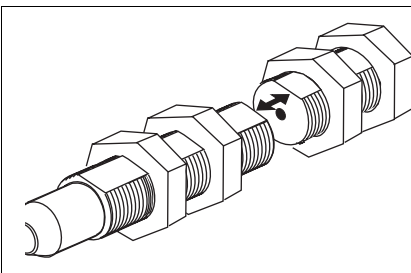
Further information about the operating distances and the maximum permitted lateral and vertical offset can be found in the chapters entitled "Description" and "Units".



On units with a round M30 design, make sure that the two notches are exactly opposite each other. A nib on the actuator prevents it twisting.



On units with a round M12 design, make sure that the two bevelled surfaces are exactly opposite each other.



Installation guidelines

- Safety switch and actuator
- ▶ Keep away from iron swarf
 - ▶ Do not expose to strong magnetic fields
 - ▶ Do not expose to heavy shock or vibration
 - ▶ Do not use as a limit stop
 - ▶ Where possible do not install on top of ferromagnetic material (changes in the operating distances can be expected). In this case, units in the square design can use the spacer, order number 534 310.
- The distance between two systems made up of safety switch and actuator must be at least 25 mm (see installation example, "Safety switches on swing gates")

Attachment

Attach the safety switch to the fixed part of the safety device.

Square design:

- ▶ Safety switches and actuators should only be secured using M4 screws with a flat head (e.g. M4 cheese-head or pan head screws). Torque setting max. 1 Nm. Use screws made of non-magnetic material (e.g. Messing).

Round design:

- ▶ Secure the safety switch using the M30 or M12 nuts provided. The torque setting for the nuts is max. 300 Ncm.

The actuator should be secured permanently to guarantee security against manipulation.

Adjustment

- ▶ The safety switch may only be used with a corresponding actuator.
- ▶ The actuator must not make contact with the safety switch. Please note the minimum operating distance stated in the technical details.
- ▶ Always test the function with one of the approved evaluation devices.
- ▶ Some safety switches have an LED. There are 2 types:
 - The LED lights when the contacts are unoperated (safety de-

vice open or safety switch and actuator wrongly adjusted). The LED is in the safety switch's N/C circuit. The LED goes out when the contacts are operated.

- (PSEN with round M12 design only): The LED lights when the contacts are operated (safety device closed). The LED goes out when the contacts are unoperated.

Further information about the switching distances (operating and release distance) and the maximum permitted lateral and vertical offset can be found in the chapters entitled "Description" and "Units".

Installing the interfaces PSEN i1 and PSEN ix1

- ▶ The unit should be installed in a control cabinet with a protection type of at least IP54.
- ▶ Use the notch on the rear of the unit to attach it to a DIN rail.
- ▶ Ensure the unit is mounted securely on a vertical DIN rail (35 mm) by using a fixing element (e.g. retaining bracket or an end angle).

Installation accessories

Spacer for safety switch in square design

If the safety switch and actuator are installed on to ferromagnetic material, the operating distances may vary. In this case, use the spacer available under order number 534 310 (see chapter entitled "Accessories").

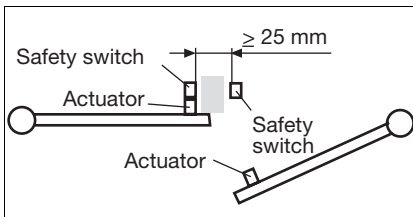
Bracket for safety switch in square design

An aluminium bracket is available for installing the safety switch and actuator at an angle. On this bracket it is possible to adjust the position of the safety switch and actuator (see chapter entitled "Accessories").

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Swing gates

On swing gates the safety switch must be positioned on the closed edge. The distance between the two systems comprising safety switch and actuator must be at least 25 mm.



Concealed installation

To exclude the possibility of manipulation, the actuator must be fitted in such a way that it cannot be removed by the operator. (see section entitled "Attachment"). Security against manipulation can also be guaranteed by concealing the installation of the safety switch and actuator. A concealed installation also reduces the risk of injury.

