SG-PSM

Deviating mirrors protective armor stand

Instruction Manual

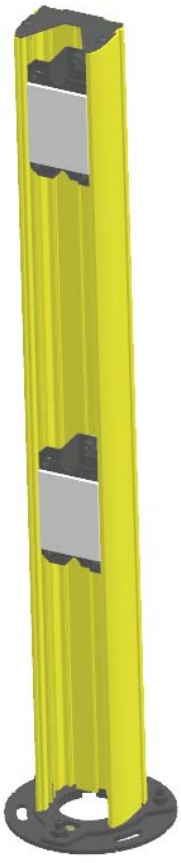


Fig. A

826000231 (Rev. A)

GENERAL INFORMATION

The SG – PSM accessory is a guard, which comprises a drawn aluminium column and a steel base. The base is made of two plates. Their inclination can be adjusted by means of three dowels and their angular position can be adjusted through 3 rough adjustment slots and 3 fine adjustments slots. The drawn column contains the deviating mirrors, already mounted and ready to be adjusted - each one independently.

CHARACTERISTICS

- Protects the deviating mirrors mounted inside it from accidental collisions and vibrations;
- Single painted drawn aluminium section in different lengths, suitable for all heights;
- Sturdy steel base made of 2 plates with angle reference marks, dowels for adjustment of the vertical axis and slots for angular position adjustment;
- Spheric level to facilitate adjustment of the vertical axis;

TYPICAL APPLICATIONS

Use of the SG-PSM accessory is recommended in work environments typical of the material handling market, where forklift trucks, AGVs or other vehicles move freely within the plant and may collide with the safety light curtains.

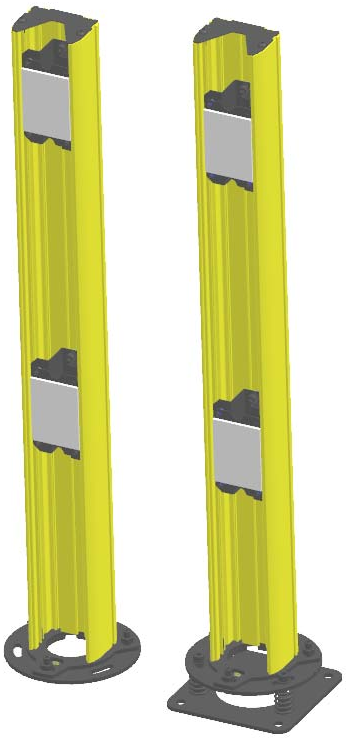


Fig. 1

NOTES

*If a body protection is being used, compliance with the **EN 999 standard 'Safety of machinery - Positioning of safeguards with respect to the approach speeds of parts of the human body'** is required.*

MECHANICAL MOUNTING

The SG-PSM accessory is supplied by the manufacturer with pre-mounted mirrors and does not require any mechanical mounting.

an extra plate may be installed on the accessory, to compensate for the effects of collisions, vibrations and uneven floor surfaces:

- ***SG-P (95ASE2290)***: kit for the installation of a double plate with compensation springs.

SG-P ACCESSORY MOUNTING

Fasten the plate to the floor with the screws and insert the 3 load-bearing springs on the spacers on the plate. Place the column on the springs so that the slots in the bottom plate are aligned with the springs. Insert the M10 UNI 5931 screws and washers, provided with the SG-P accessory, in the slots and tighten them while gradually pressing down upon the 3 load-bearing springs. During this phase the vertical axis can also be adjusted. Use as a reference the spheric level and choose the rough angular position using the slots and the reference marks on the bottom plate. The optimal working height for the load-bearing springs (which corresponds to the distance between the fixed plate and the bottom plate) is approximately 42 mm. Once it rests on a level surface and the maximum angular position has been established, it is possible to perform a fine adjustment of the angular position by working on the dowels and the lock nuts of the moulded plate (Fig. 2).

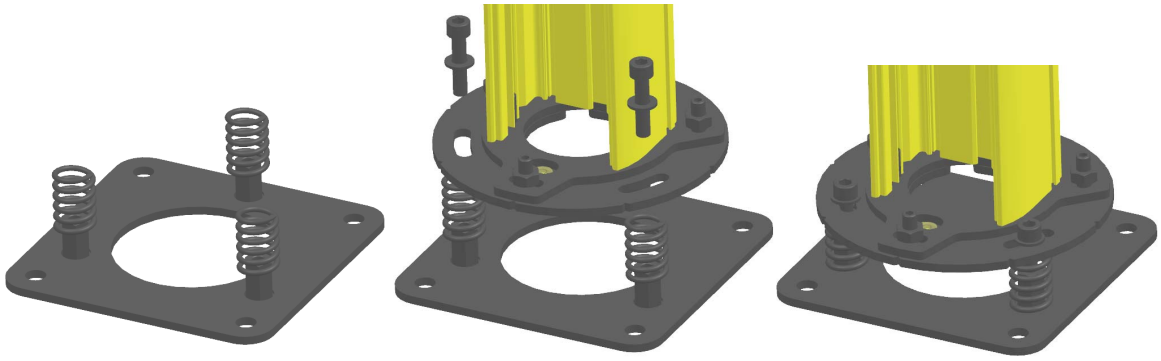


Fig. 2

ADJUSTMENT

ADJUSTING THE DEVIATING MIRRORS

The height and inclination of each mirror unit can be adjusted, in order to compensate for any misalignment.

To adjust height, unfasten slightly the M8x12 UNI 5931 screws, then slide the mirror unit along the axis of the column and tighten the screws once the desired position is reached. If the column is in a vertical position, make sure the mirror does not slide accidentally towards the bottom.

To adjust the inclination of each single mirror unit independently, work on the 3 M4x20 UNI 5931 screws (Fig. 3).

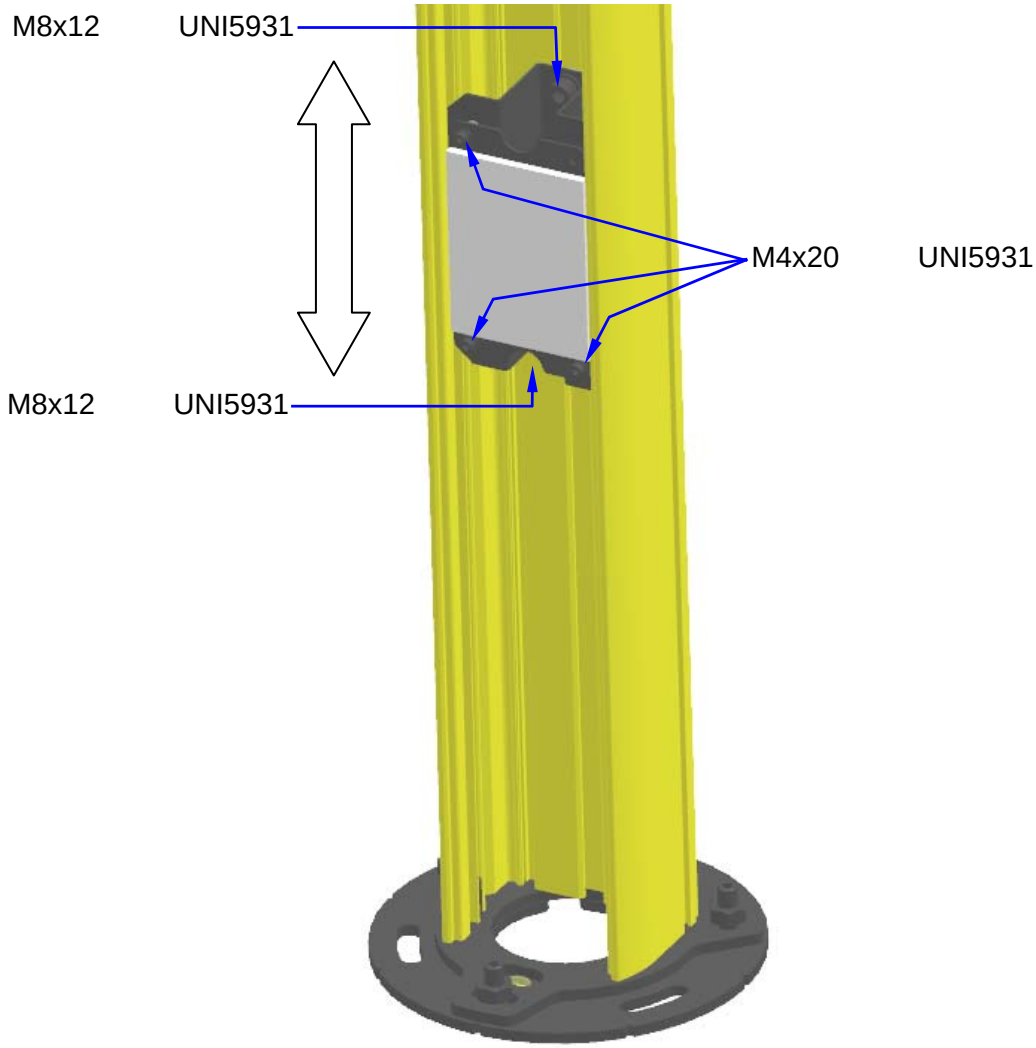


Fig. 3

Please bear in mind the following values for the reduction of the operating distance according to the number of deviations achieved through the deviating mirrors:

1 deviation: 15% reduction → the operating distance is 85% of the product nominal value;

2 deviations: 35% reduction → the operating distance is 65% of the product nominal value;

3 deviations: 50% reduction → the operating distance is 50% of the product nominal value;

ADJUSTING THE VERTICAL AXIS AND THE ANGULAR POSITION OF THE PLATES

Fasten the plate to the floor in the desired rough angular position, according to the positions established by the reference grooves (main angles: 0° - 45° - 90° for each quadrant); to do this, use the 3 slots on the bottom plate and M10 screws. Do not tighten the M10 screws completely. Unfasten the lock nuts on the dowels, then use the dowels to adjust the inclination; during this operation, use the spheric level as a reference. Once the desired inclination is obtained, tighten the screws to the floor. If necessary, proceed to a further adjustment by rotating the moulded plate to the desired position, then tighten the lock nuts on the dowels (Fig. 4).

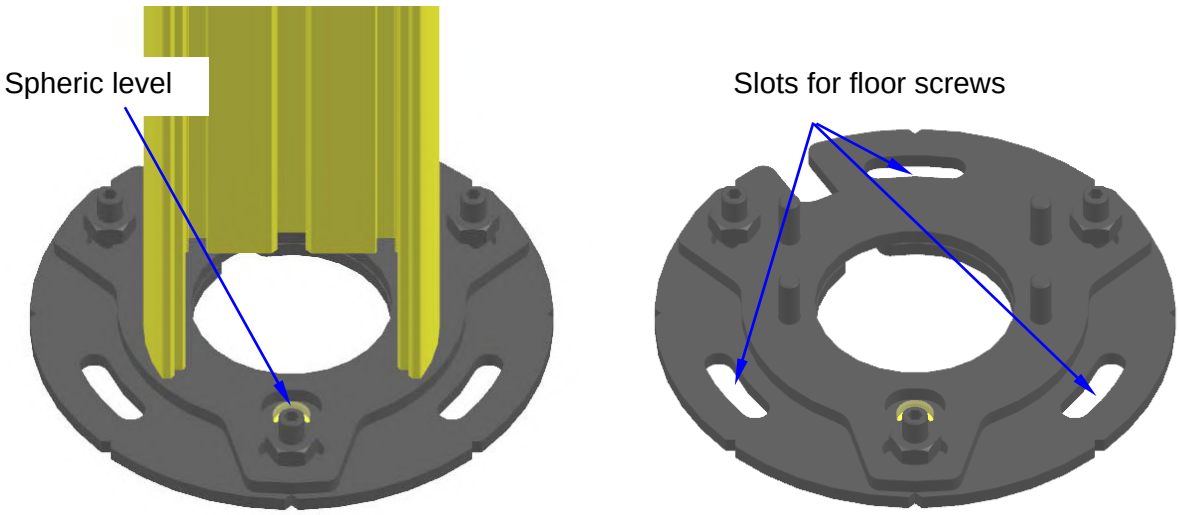


Fig. 4

INSTALLATION

SG-PSM MOUNTING

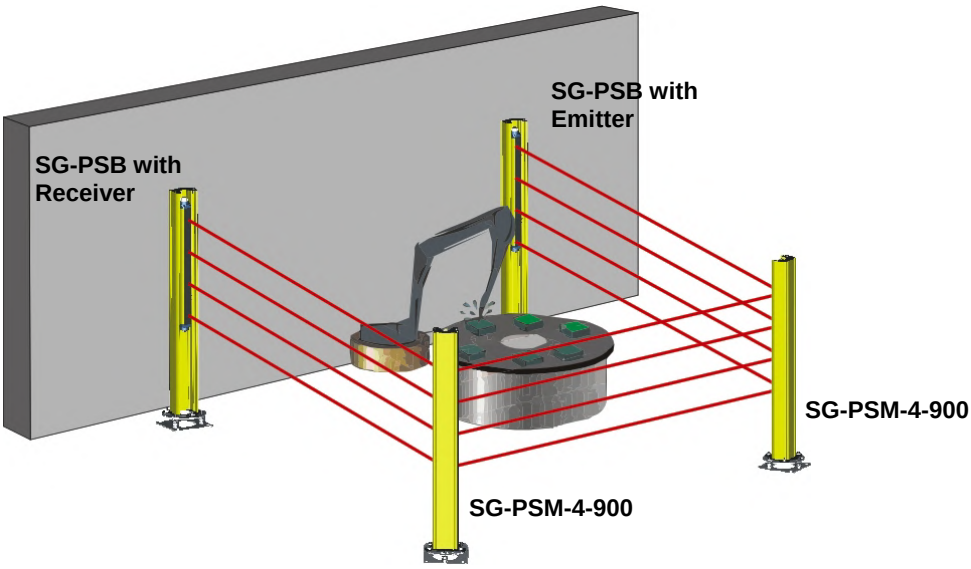


Fig. 5

1. Define the area to protect and the precise positions where the deviating mirrors and the emitting and receiving units of the light curtain will be installed. The table "Corresponding Models" gives an overview of how to match products with the corresponding accessories.
2. Place the SG-PSM accessory in the desired position. Fasten the supports (or SG-P) to the floor, in the defined points, verifying that their axes are perpendicular to the floor; use the spheric level provided to fine adjust their inclination if necessary.
3. Orient the mirrors to about 45° with respect to the optic path; the SG-PSM accessory guarantees an adjustment interval around the vertical axis of about ±5° once secured to the floor.
4. Insert the SG-LP laser pointer in the upper part of the emitting unit; orient the unit so that the laser beam hits the surface of the first mirror in a central point of the vertical axis and at the same height at which the pointer is installed.
5. Repeat the same procedure inserting the pointer in the lower part of the unit; if necessary repeat these procedures until the desired result is achieved.
6. Orient the first mirror, according to the instructions provided in the "Adjusting the deviating mirrors" section, so that the laser beam hits the second mirror as described above.
7. For the angular adjustment, see the "Adjusting the inclination and the angular position of the plates" section, if using the SG-PSM accessory mounted without the SG-P kit. If the SG-P accessory is being used, adjust as specified in the "SG-P Accessory Mounting" section.



NOTE

The laser pointer, due to mechanical tolerance issues related to its use in combination with the bar, provides an approximate measurement. It might be necessary to carry out small adjustments to the alignment of the two units following the regular ALIGNMENT PROCEDURE described in the safety light curtains Instruction Manual. We recommend NOT to make any further changes to the position of the mirrors, as the laser beam guarantees their perfect alignment.

Corresponding Models

SG-PSM	CORRESPONDING LIGHT CURTAIN
SG-PSM-2-500	SG2-S2-050-PP-E
	SG2-S2-050-PP-W
	SG4-S2-050-PP-E
	SG4-S2-050-PP-W
	SG2-B2-050-OO-E
	SG2-B2-050-OO-W-C
	SG4-B2-050-OO-E
	SG4-BLR2-050-OO-W-C
	SG4-BSR2-050-OO-W-C
SG-PSM-3-800	SG2-S3-080-PP-E
	SG2-S3-080-PP-W
	SG4-S3-080-PP-E
	SG4-S3-050-PP-W
	SG2-B3-080-OO-E
	SG2-B3-080-OO-W-C
	SG4-B3-080-OO-E
	SG4-BLR3-080-OO-W-C
	SG4-BSR3-080-OO-W-C
SG-PSM-4-900	SG2-S4-090-PP-E
	SG2-S4-090-PP-W
	SG4-S4-090-PP-E
	SG4-S4-090-PP-W
	SG2-B4-090-OO-E
	SG2-B4-090-OO-W-C
	SG4-B4-090-OO-E
	SG4-BLR4-090-OO-W-C
	SG4-BSR4-090-OO-W-C
SG-PSM-4-1200	SG2-S4-120-PP-E
	SG2-S4-120-PP-W
	SG4-S4-120-PP-E
	SG4-S4-120-PP-W
	SG2-B4-120-OO-E
	SG2-B4-120-OO-W-C
	SG4-B4-120-OO-E
	SG4-BLR4-120-OO-W-C
	SG4-BSR4-120-OO-W-C



NOTE

The above table refers to the models of the SG BODY COMPACT and SG BODY BIG series. In any case, the SG-PSM accessory may also be used with the light curtains of the SE2-P and SE4-P/Q series.

AVAILABLE MODELS

SG-PSM

MODEL	DESCRIPTION	ORDER No.
SG-PSM-2-500	Protective Stand 2 mirrors H500	95ASE2300
SG-PSM-3-800	Protective Stand 3 mirrors H800	95ASE2310
SG-PSM-4-900	Protective Stand 4 mirrors H900	95ASE2320
SG-PSM-4-1200	Protective Stand 4 mirrors H1200	95ASE2330

ACCESSORIES

MODEL	DESCRIPTION	ORDER No.
SG-P	Double plate with compensation springs kit	95ASE23’0

OVERALL DIMENSIONS

The overall dimensions of the complete product for all available models are shown below.

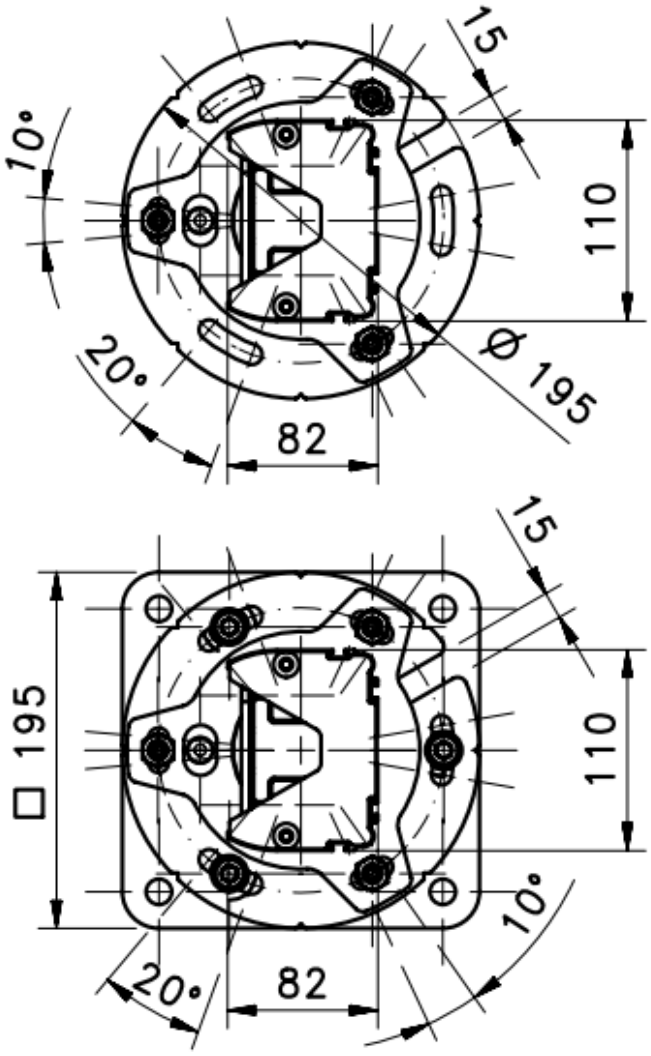
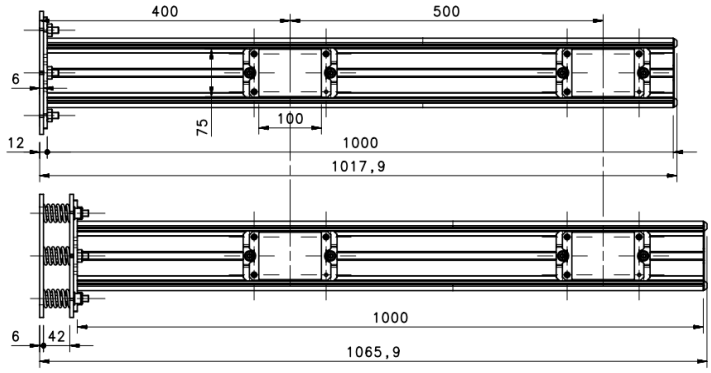
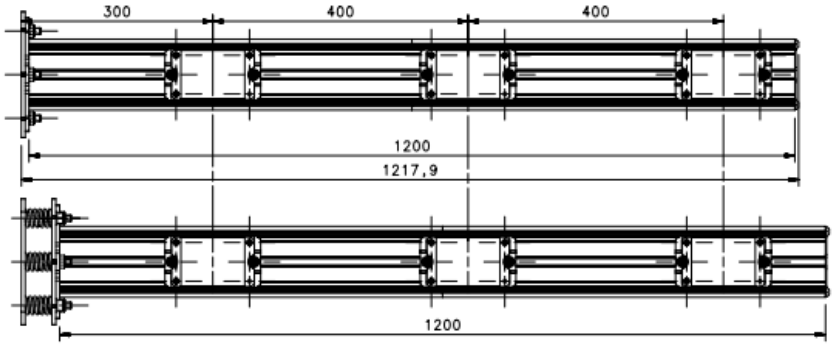


Fig. 6

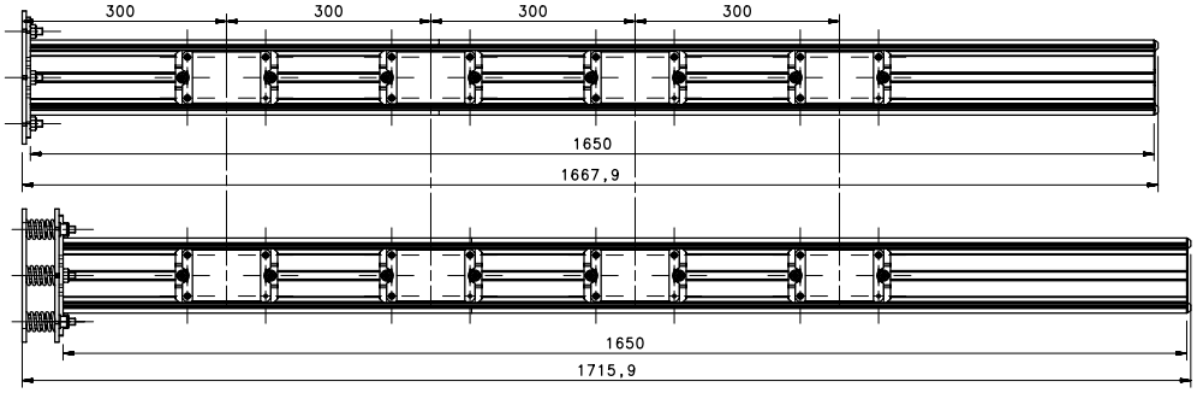
SG-PSM-2-500



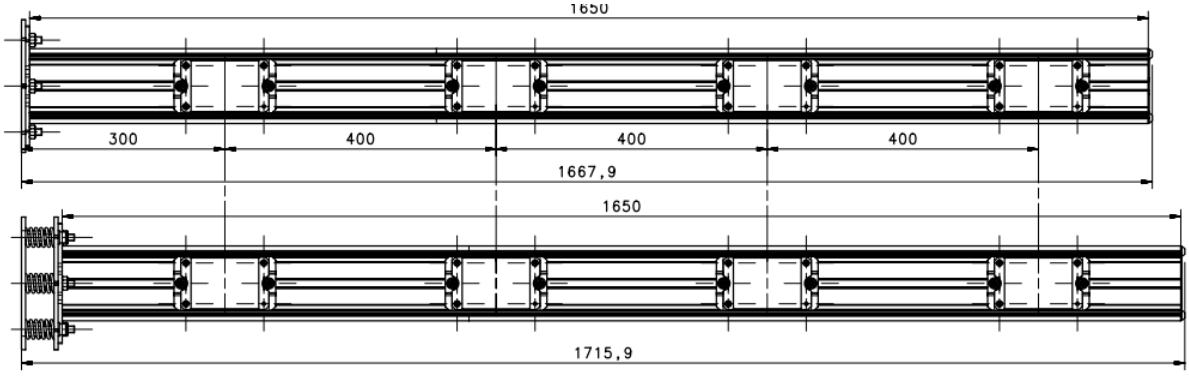
SG-PSM-3-800



SG-PSM-4-900



SG-PSM-4-1200



CE COMPLIANCE

CE marking states the compliance of the product with essential requirements listed in the applicable European directive. Since the directives and applicable standards are subject to continuous updates, and since Datalogic promptly adopts these updates, therefore the EU declaration of conformity is a living document. The EU declaration of conformity is available for competent authorities and customers through Datalogic commercial reference contacts. Since April 20th, 2016 the main European directives applicable to Datalogic products require inclusion of an adequate analysis and assessment of the risk(s). This evaluation was carried out in relation to the applicable points of the standards listed in the Declaration of Conformity. Datalogic products are mainly designed for integration purposes into more complex systems. For this reason it is under the responsibility of the system integrator to do a new risk assessment regarding the final installation.

Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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Helpful links at www.datalogic.com: **Contact Us, Terms and Conditions, Support.**

The warranty period for this product is 36 months. See General Terms and Conditions of Sales for further details.

Under current Italian and European laws, Datalogic is not obliged to take care of product disposal at the end of its life. Datalogic recommends disposing of the product in compliance with local laws or contacting authorised waste collection centres.

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