



SG-DM

Deviating Mirrors

Instruction Manual

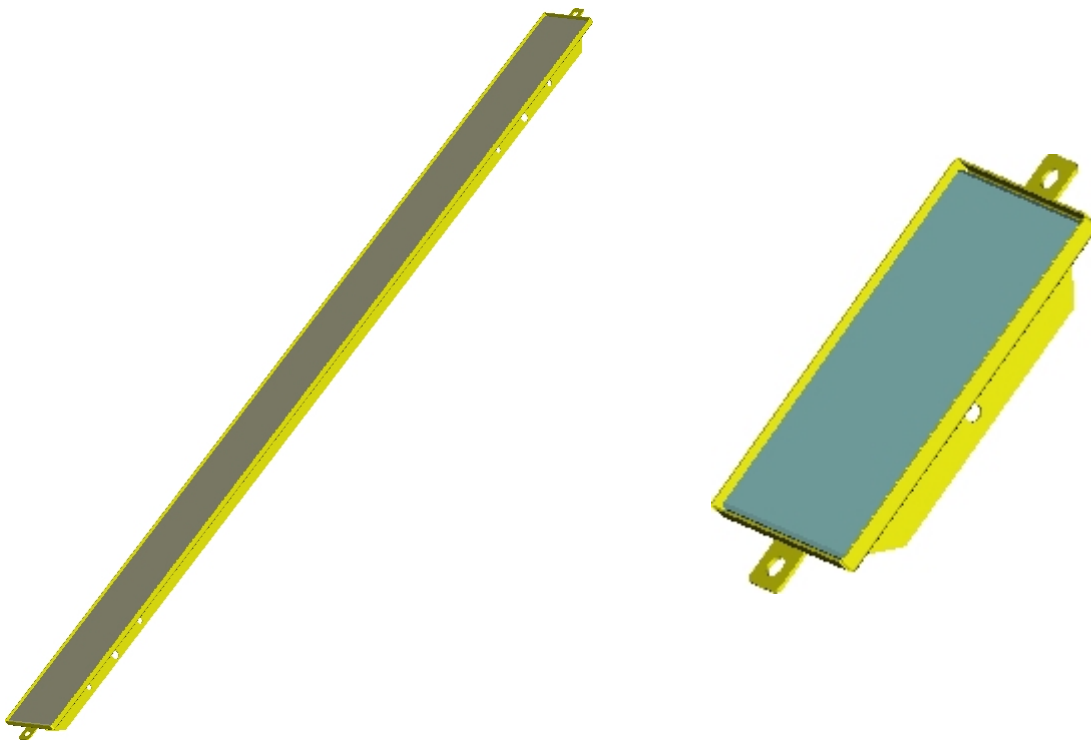


Figure A

NOTES AND WARNINGS

- To guarantee the correct functioning of the safety light curtains, we recommend the use of no more than three deviating mirrors to deviate the beam along the optic path.
- Each mirror used decreases the operating range of the safety light curtain by 15%, 20%, 25%. Apply a correction factor of 85% using one mirror, 65% using two mirrors, 50% for three mirrors.
- To maintain the correct functioning of the system, we advise to periodically clean the mirror surface using a damp non-abrasive cloth. The cleaning frequency depends on the system's surrounding environment.
- The mirror length has to be at least 100 mm superior to the length of the light curtain's protected area.
- The mirror has to be mounted in such a manner that its axis (horizontal and vertical) coincide with the corresponding safety device axis.
- The mirror has to be solidly fixed to avoid accidental movements or strong vibrations.
- The use of the SE-S floor stand or the SG-PSB Protective Armor Stands is recommended. The mirror is fixed to these using the appropriate accessory mounting kit. The use of the "SE-DM K DEVIATING MIRROR FIXING KIT" (cod.95ACC2530) is recommended when installing the devices in environments characterized by strong temperature variations and/or in presence of vibrations.
- Given the limited mirror width, the entire system is particularly sensitive also to small rotations along the vertical axis of the mirror and emitting and receiving units.
- Hence particular attention has to be taken during system alignment and part fixing.
- To facilitate system installation (mirror/s and safety light curtain) the use of the Datalogic SG-LP laser pointer is suggested.

The drawing shows an area protection system composed of a safety light curtain and two mirrors.

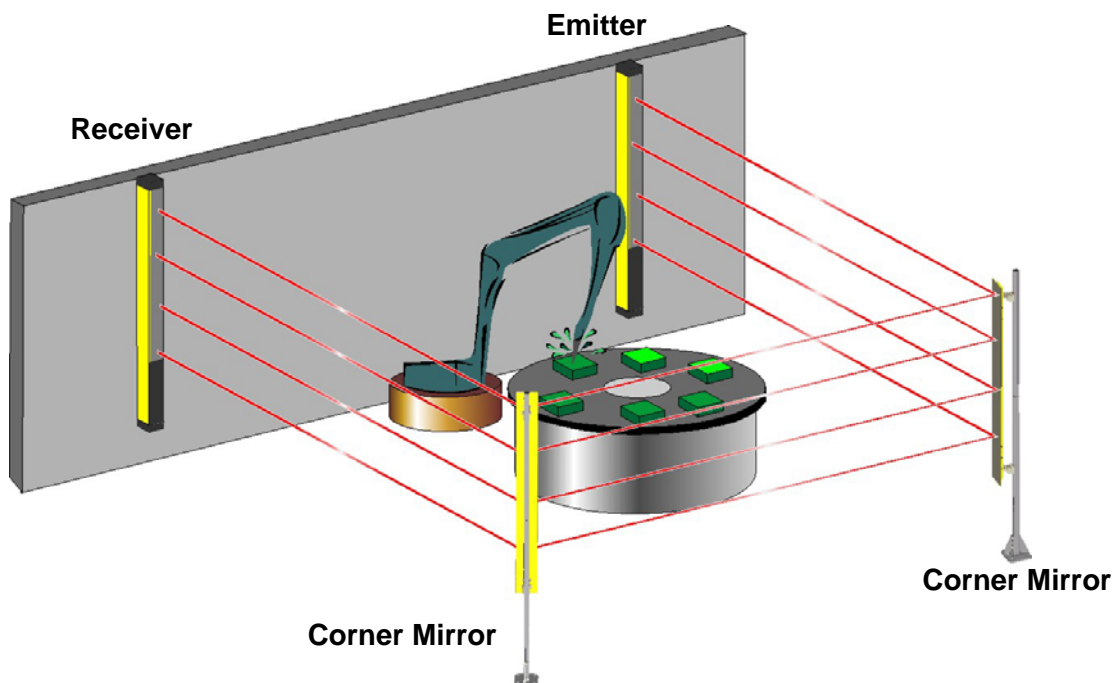


Figure 1

INSTALLATION

INSTALLATION ON SE-S/BOSCH BAR "STAND ALONE"

- Mounting requires the bracket kit ST-DM 95ASE1940.
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.
 2. Fix the floor stands, in the defined points, verifying that their axes are perpendicular to the floor.
 3. Install the deviating mirrors and emitting and receiving units on the floor stands respecting the warnings given previously. To mount the brackets on the mirror's carter insert the M6x50 UNI 5931 screw, coupling the bracket assembly to the carter's slot and tighten the screw (Figure 2).
 4. Orient the mirrors to about 45° with respect to the optic path.
 5. Insert the SG-LP laser pointer in the upper part of the emitting unit; orient the unit in order 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.
 6. 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.
 7. Orient the first mirror in order that the laser beam hits the second mirror as described above.
 8. For the angular adjustment rotate the fixing brackets on the relative pins and fix the screws when the required position is reached. For adjustments of the vertical axis use the holes present of the mirror's body and/or modify the inclination of the floor stand using washers.
 9. Orient the second mirror according to the same modes used previously guaranteeing that the laser beam hits the receiving unit.
 10. Insert the SG-LP laser pointer in the upper part of the receiving unit and, orientating this unit, in order that the laser beam, reflected from the two mirrors, hits the emitting unit.
 11. Repeat the same procedure inserting the laser pointer in the lower part of the unit.

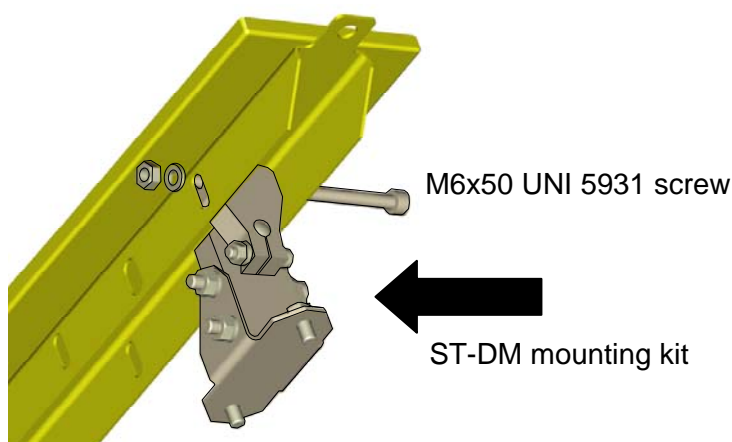



Figure 2

INSTALLATION ON SG-PSB

The various SG-DM models can be installed into the Protective Armor Stands

The SG-PSB Protective Armor Stand is an accessory to which both safety light curtains and SG-DM Deviating Mirrors can be mounted.

 NOTA	<p><i>In the case of the SG-DM 150, a pre-assembled Protective Armor Stand SG-PSM is available. See the SG-PSM manual for installation and adjustment procedures.</i></p>
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CORRESPONDING MODELS

SG-DM	CORRESPONDING SAFETY LIGHT CURTAIN
SG-DM 600	SGx-xx-015
	SGx-xx-030
	SGx-xx-045
SG-DM 900	SGx-xx-060
	SGx-xx-075
	SG4-40-060
2x SG-DM 150 / SG-DM 900	SG2-S2-050
	SG4-S2-050
	SG2-B2-050
	SG4-B2-050
	SG4-BLR2-050
	SG4-BSR2-050
SG-DM 1200	SGx-xx-090
	SGx-xx-105
	SG4-40-090
3x SG-DM 150 / SG-DM 1200	SG2-S3-080
	SG4-S3-080
	SG2-B3-080
	SG4-B3-080
	SG4-BLR3-080
	SG4-BSR3-080
4x SG-DM 150 / SG-DM 1200	SG2-S4-090
	SG4-S4-090
	SG2-B4-090
	SG4-B4-090
	SG4-BLR4-090
	SG4-BSR4-090
SG-DM 1650	SGx-xx-120
	SGx-xx-135
	SGx-xx-150
	SG4-40-120

SG-DM	CORRESPONDING SAFETY LIGHT CURTAIN
4x SG-DM 150 / SG-DM 1650	SG2-S4-120
	SG4-S4-120
	SG2-B4-120
	SG4-B4-120
	SG4-BLR4-120
	SG4-BSR4-120
SG-DM 1900	SGx-xx-165
	SGx-xx-180

OVERALL DIMENSIONS

Model 150, including ST-DM stand alone bracket mounting kit

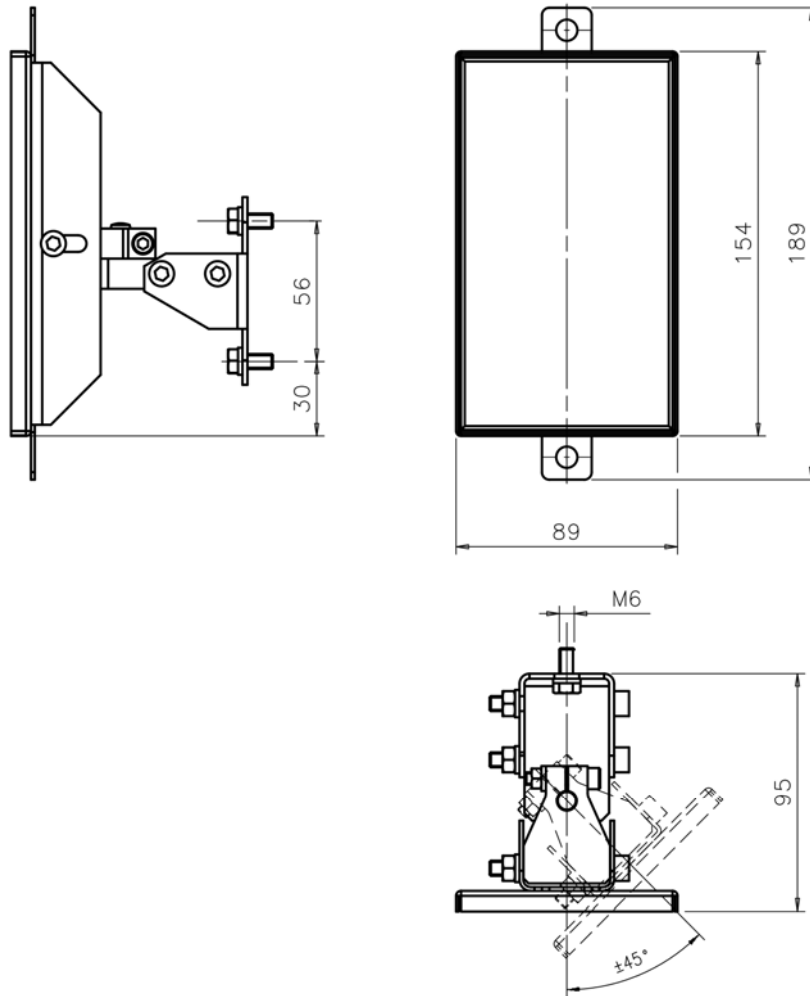
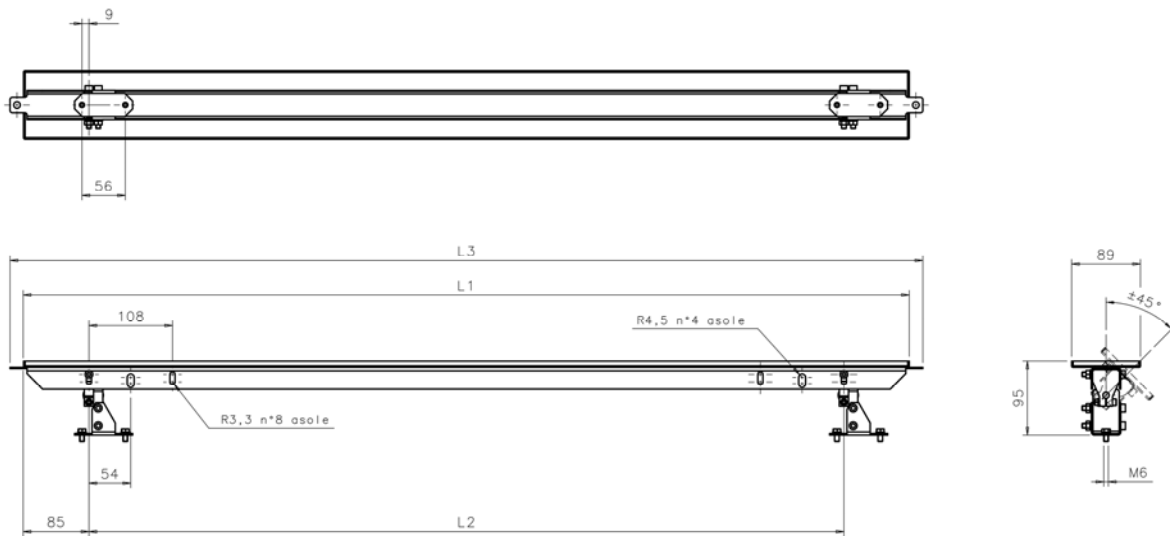



Figure 3

Models 600 to 1900, including ST-DM stand alone bracket mounting kit



Versione	L1 (mm)	L2 (mm)	L3 (mm)
SG-DM 600	545	376	580
SG-DM 900	845	676	880
SG-DM 1200	1145	976	1180
SG-DM 1650	1595	1426	1630
SG-DM 1900	1845	1676	1880

Figure 4



NOTA

The overall dimensions of the SG-DM mounted in the Protective Armor Stand are available in the SG-PSB Instruction manual.

DECLARATION OF CONFORMITY


We DATALOGIC AUTOMATION declare under our sole responsibility that these products are conform to the 2004/108/CE and successive amendments



WARRANTY

DATALOGIC AUTOMATION warrants its products to be free from defects.
 DATALOGIC AUTOMATION will repair or replace, free of charge, any product found to be defective during the warranty period of 36 months from the manufacturing date.
 This warranty does not cover damage or liability deriving from the improper application of DATALOGIC AUTOMATION products.

DATALOGIC AUTOMATION Via Lavino 265
 40050 Monte S.Pietro - Bologna - Italy
 Tel: +39 051 6765611 Fax: +39 051 6759324
 www.automation.datalogic.com e-mail: info.automation@datalogic.com

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