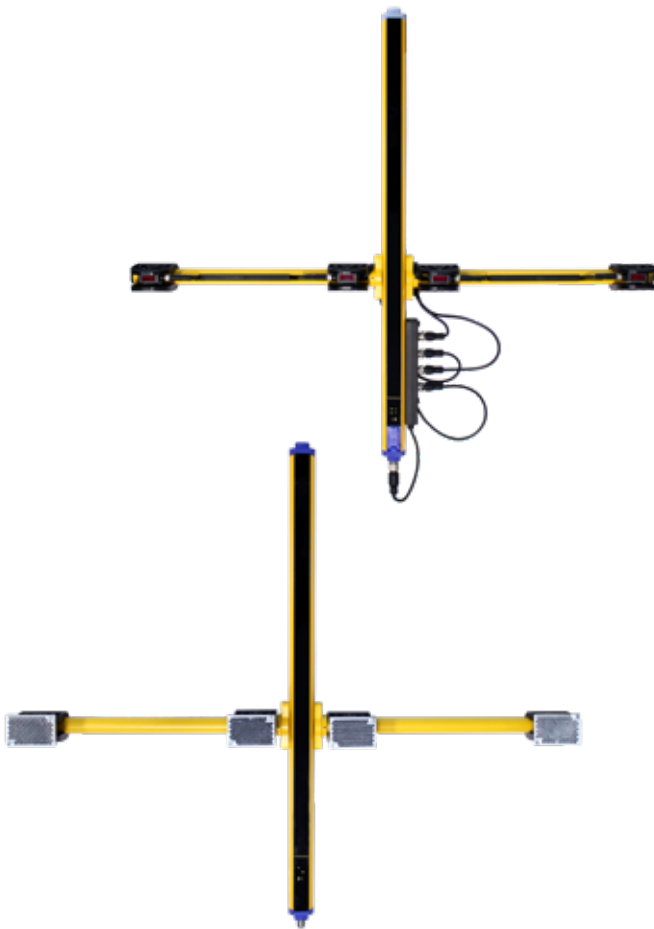


# EXTERNAL SENSORS MUTING ARMS: SG-M

## Modular, ready-to-use muting sensor kit for flexible installation

The SG-M muting sensors kit regulates the position and orientation of muting beams in order to adapt quickly and easily to any kind of situation.



### APPLICATIONS

- Palletizers / Depalletizers
- Conveyor lines

### INDUSTRIES

- Material Handling
- Food & Beverage
- Metal working
- Automotive
- Wood
- Ceramics



**SG-M** L - S8 - 200 - L

#### MUTING CONFIGURATION

L	L configuration: 2 sensors, 2 reflectors. Parallel beams. Monodirectional (Exit only).
T	T configuration: 4 sensors, 4 reflectors. Parallel beams. Bidirectional.
X	X configuration: 2 sensors, 2 reflectors. Crossed beams. Bidirectional.

#### CABLE LENGTH

---	700 mm
200	2000 mm

#### MUTING SENSOR

S8	2 x S8-PR-5-B01-PP
S100	2 x S100-PR-5-B10-PK

#### ARM ORIENTATION

L	Left: the muting arm is to the left, looking at light curtain receiver
R	Right: muting arm is to the right, looking at light curtain receiver

# A flexible solution for muting

In some access guarding applications, like in palletizing/depalletizing machines, safety light curtains are muted while a load passes through their monitored area.

When the load has an irregular shape, or has holes in it, muting can end before the load has completely passed the light curtain, causing the unnecessary stop of the machine. In cases like this, the ability to regulate the position and orientation the position and orientation of muting beams with increased flexibility, allows the system to adapt quickly and easily to any kind of situation. To simplify the installation of muting sensors in these kind of applications, Datalogic has developed the new SG-M muting sensors modular Kits. The SG-M includes retroreflective photocells as muting sensors, reflectors, cylindrical metallic arms, orientable plastic brackets, cables with M12 connectors, and a connection box for the quick wiring of the sensor outputs to the safety light curtain dedicated muting connector.

The SG-M is the newest addition to a safety portfolio that includes integrated muting arms (SG-T-ARM and SG-L-ARM).

The arms with external sensors can be attached directly to the light curtains of SG Series (fig. 1) or to their protective stands SG-PSB (fig. 2).

With SG-M, three standard configurations for muting beams can be easily installed: T Muting (fig.3), L Muting (fig. 4 and 5) and X Muting (fig. 6).

Sensors provided with the kit are retroreflective, dark on photocells, and come in two versions:

- S100-PR-5-B10-PK, for standard applications with no specific requirements
- S8-PR-5-B01-PP for applications where beam intensity regulation is required.

On the opposite side of the sensors, an ù reflector is mounted.

Sensors and reflectors can be positioned along the arms and orientated both horizontally and vertically thanks to their brackets shape.

Sensors have detachable cables (in T and L muting kits) or pigtailed. Both cables have an M12 connector M12 connector, for a quick connection to the safety light curtains through a dedicated connection box (SG-M-CB), or to an external safety controller through normal cables.

The cables are protected inside the metallic arms and have different lengths (700 and 2000 mm), for easy installation on the light curtains, or on the protective stands.

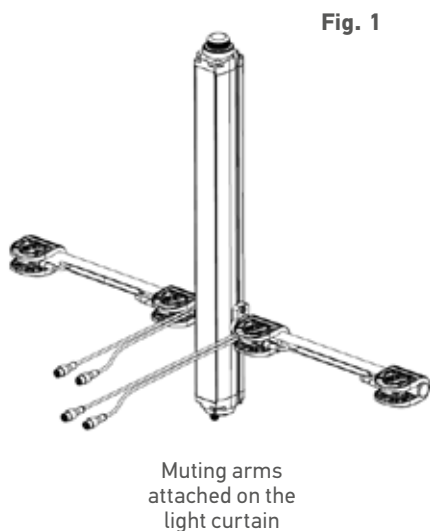


Fig. 1

Muting arms attached on the light curtain

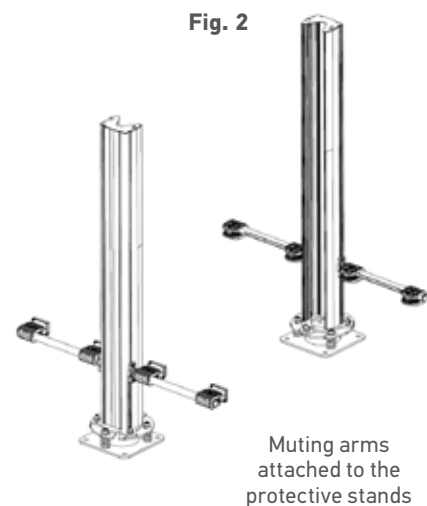


Fig. 2

Muting arms attached to the protective stands

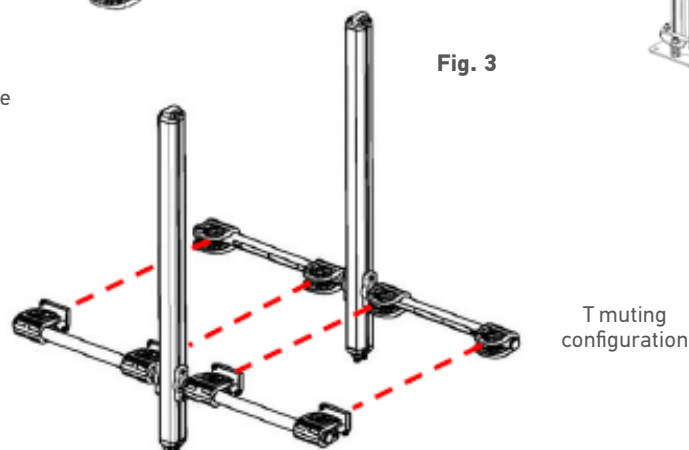


Fig. 3

T muting configuration

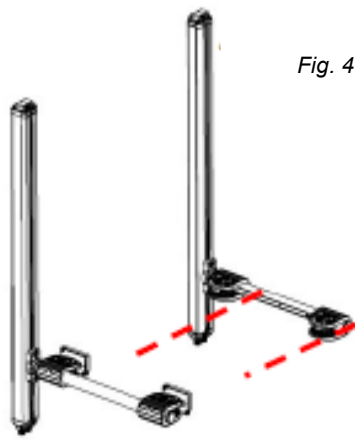


Fig. 4

L muting configuration with orientation to the right.

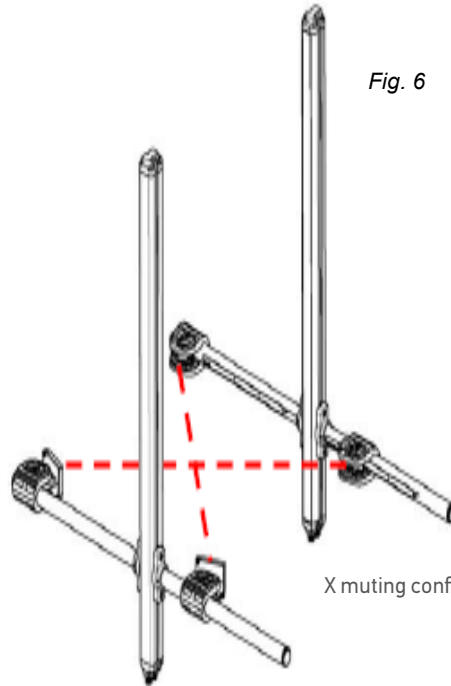


Fig. 6

X muting configuration

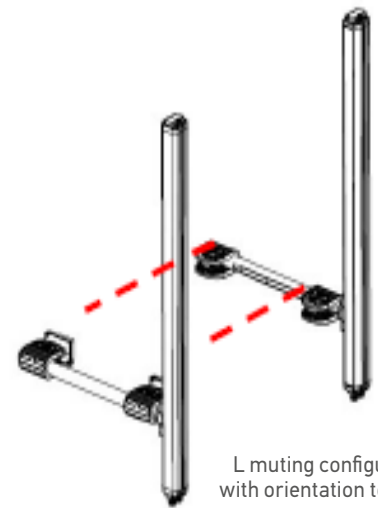


Fig. 5

L muting configuration with orientation to the left

## SG-M MUTING KITS

The following table shows the characteristics, the sensors and the cables included in any SG-M muting configuration kit in addition to the mechanical parts (arms and brackets) necessary to connect them to the profiles of the SG family safety light curtains.

MUTING CONFIGURATION	MODEL	DIRECTION <sup>*1</sup>	SENSOR ADJUSTMENT TRIMMER	MIN/MAX DISTANCE <sup>*4</sup>	SENSORS <sup>*2</sup>	CABLES <sup>*3</sup>	ORDER NUMBER
L Muting	SG-ML-S100-L	left side	No	0.2 ... 3 m	2 x S100-PR-5-B10-PK	2 x CS-M1-02-B-007 (700 mm)	95ASE2620
	SG-ML-S100-R	right side	No	0.2 ... 3 m	2 x S100-PR-5-B10-PK	2 x CS-M1-02-B-007 (700 mm)	95ASE2430
	SG-ML-S100-200-L	left side	No	0.2 ... 3 m	2 x S100-PR-5-B10-PK	2 x CS-M1-02-B-02 (2000 mm)	95ASE2610
	SG-ML-S100-200-R	right side	No	0.2 ... 3 m	2 x S100-PR-5-B10-PK	2 x CS-M1-02-B-02 (2000 mm)	95ASE2400
	SG-ML-S8-L	left side	Yes	0.2 ... 3 m	2 x S8-PR-5-B01-PP	2 x CS-M1-02-B-007 (700 mm)	95ASE2600
	SG-ML-S8-R	right side	Yes	0.2 ... 3 m	2 x S8-PR-5-B01-PP	2 x CS-M1-02-B-007 (700 mm)	95ASE2370
	SG-ML-S8-200-L	left side	Yes	0.2 ... 3 m	2 x S8-PR-5-B01-PP	2 x CS-M1-02-B-02 (2000 mm)	95ASE2590
	SG-ML-S8-200-R	right side	Yes	0.2 ... 3 m	2 x S8-PR-5-B01-PP	2 x CS-M1-02-B-02 (2000 mm)	95ASE2340
T Muting	SG-MT-S100		No	0.2 ... 3 m	4 x S100-PR-5-B10-PK	4 x CS-M1-02-B-007 (700 mm)	95ASE2440
	SG-MT-S100-200		No	0.2 ... 3 m	4 x S100-PR-5-B10-PK	4 x CS-M1-02-B-02 (2000 mm)	95ASE2410
	SG-MT-S8		Yes	0.2 ... 3 m	4 x S8-PR-5-B01-PP	4 x CS-M1-02-B-007 (700 mm)	95ASE2380
	SG-MT-S8-200		Yes	0.2 ... 3 m	4 x S8-PR-5-B01-PP	4 x CS-M1-02-B-02 (2000 mm)	95ASE2350
X Muting	SG-MX-S100		No	0.45 ... 3 m	2 x S100-PR-2-B10-PK SV4973	pigtail 700 mm	95ASE2450
	SG-MX-S100-200		No	0.45 ... 3 m	2 x S100-PR-2-B10-PK SV4974	pigtail 2000 mm	95ASE2420
	SG-MX-S8		Yes	0.6 ... 3 m	2 x S8-PR-5-B01-PP SV4973	pigtail 700 mm	95ASE2390
	SG-MX-S8-200		Yes	0.6 ... 3 m	2 x S8-PR-5-B01-PP SV4974	pigtail 2000 mm	95ASE2360

### NOTE

\*1 "Left side" and "Right side", related to L muting kits, refers to the position of the arm looking towards the receiver of the light curtain.

\*2 "Left side" and "Right side" kits differ only mechanically, in order to keep the regulating screws upside.

\*3 In X Muting Kits, special versions of photocells with pigtailed and M12 connectors have been used.

\*4 Cables used in T and L muting kits have M8 connectors on the sensors side, and M12 connectors at the external side.

\*4 Minimum distance of 0.2 m is determined by the light curtain. Maximum distance of 3 m is to avoid interferences between muting sensors

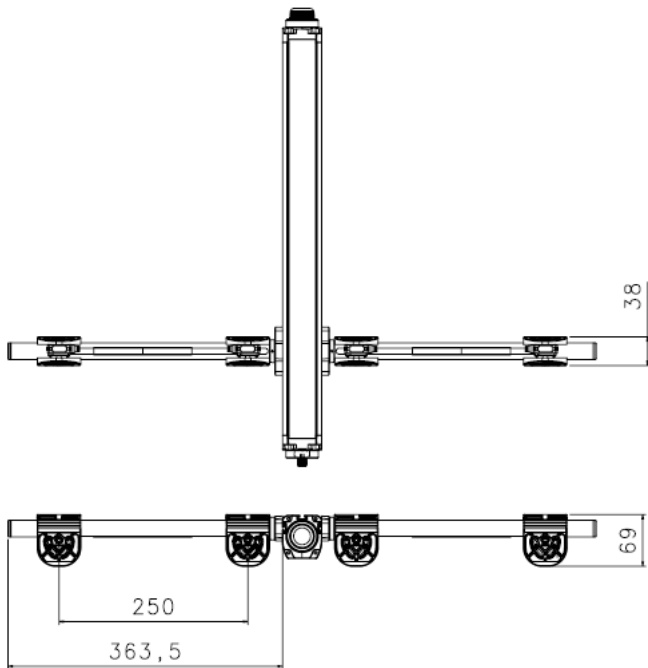
### COMPATIBILITY

SG BODY COMPACT MUTING  
 SG BODY BIG MUTING  
 SG BODY REFLECTOR MUTING  
 SG2 MUTING  
 SG4 EXTENDED

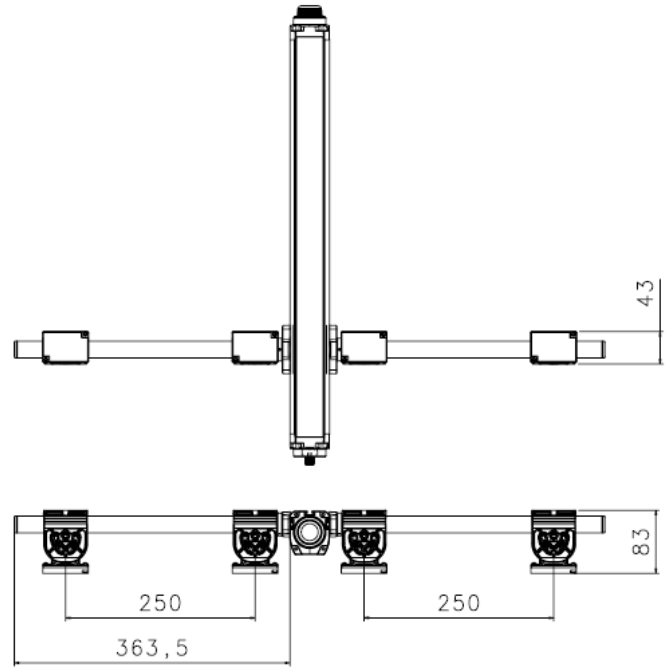
SG-PSB (only models with 2000 mm cables (SG-Mx-xxx-200-x))

# DIMENSIONS

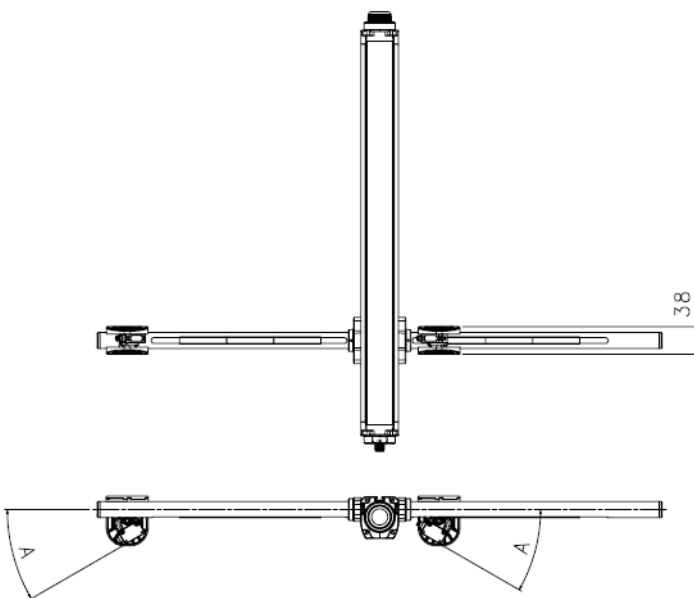
SG-M-T Active Side



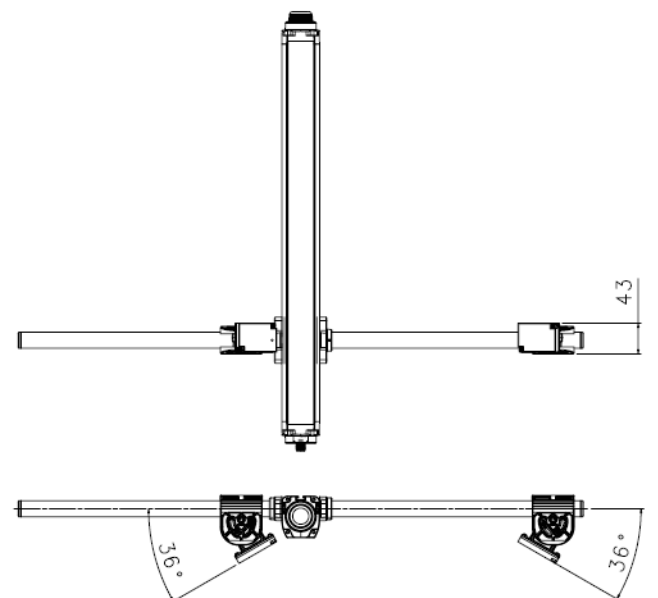
SG-M-T Passive Side



SG-M-X Active Side



SG-M-X Passive Side



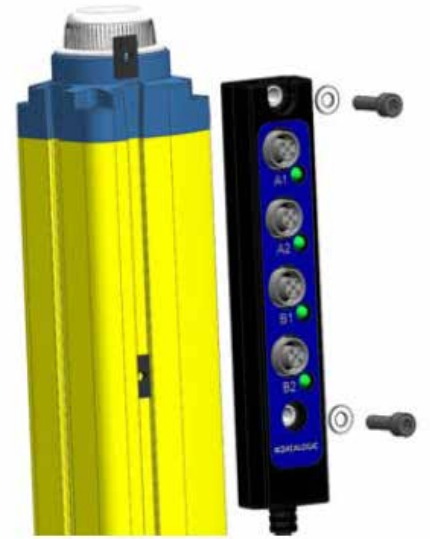
Angle/Sensor Type	S100	S8
A	38°	31°

# SG-M-CB CONNECTION BOX

The SG-M connection box has 4 M12 connectors on board, one for each muting sensor to be connected to an SG Series light curtain. Unused connectors need to be covered by a cap, in order to maintain IP65 protection.

A green LED indicator signals when the muting sensor is generating the corresponding muting signal towards the safety light curtain.

Inside the connection box, signals are put in parallel: A1 with A2 and B1 with B2, and forwarded to the pigtail connector, that has to be inserted into the muting connector of the light curtain.



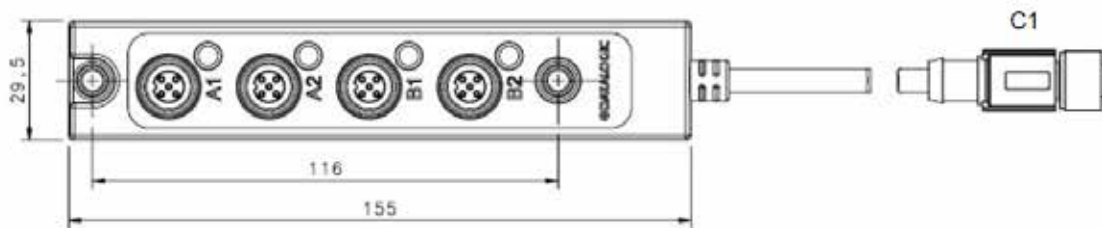
MODEL	DESCRIPTION	ORDER NUMBER
SG-M-CB	Connection Box for SG-M kits	95ASE2500
SG-M-CB-KIT	SG-M-CB Mounting Kit	95ASE2830

#### NOTES

SG-M-CB-KIT contains screws, washers and fixing guides needed to connect SG-M-CB to the profile of SG family Safety light curtains.

#### COMPATIBILITY

- SG BODY COMPACT MUTING
- SG BODY BIG MUTING
- SG BODY REFLECTOR MUTING
- SG2 MUTING
- SG4 EXTENDED
- SG-PSB (mechanical compatibility)



PIN #	S8	S100
1		+24 Vdc
2	Alarm output	Light/Dark selection
3		0 Vdc
4		PnP Output

# S100 AND S8 SENSORS

MODEL	CHARACTERISTICS	REGULATIONS	MAX. OPERATING DISTANCE	CONNECTION	ORDER NUMBER
S100-PR-5-B10-PK	Polarized retroreflective, red LED, PnP Output, Plastic	Dark/Light	6 m	M8	950811310
S100-PR-2-B10-PK SV4972				400 mm pigtail M12	950815060
S100-PR-2-B10-PK SV4973				700 mm pigtail M12	950815070
S100-PR-2-B10-PK SV4974				2000 mm pigtail M12	950815080
S8-PR-5-B01-PP				M8	950801160
S8-PR-5-B01-PP SV4972	Dark/Light Mono-turn sensitivity adjustment trimmer	7 m	400 mm pigtail M12	950805340	
S8-PR-5-B01-PP SV4973			700 mm pigtail M12	950805350	
S8-PR-5-B01-PP SV4974			2000 mm pigtail M12	950805360	

## NOTES

1\* With reflector R6

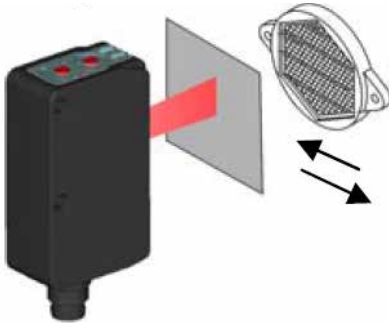
For more detailed technical information about the sensors, refer to Datasheet of S100 or S8 families.

## S8 SETTINGS

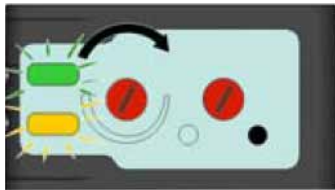
### DARK



Rotate trimmer in a clockwise direction to set the DARK mode (output ON in presence of the object).



Position the sensor in front of its reflector



If needed, regulate the intensity of the beam by rotating the adjustment trimmer

## SPARE PARTS

MODEL	NOTES	ORDER NUMBER
SG-M-ARM	Cylindrical Metallic Arm	95ASE2460
CS-M1-02-B-004	4 poles M8 female M12 male cable 400mm	95ASE2470
CS-M1-02-B-007	4 poles M8 female M12 male 700mm	95ASE2480
CS-M1-02-B-02	4 poles M8 female M12 male 2000mm	95ASE2490
SG-M BRACKET	Single plastic orientable bracket, to mount S8, S100, or R6	95ASE2630
R6	Prismatic reflector 36 x 55 mm - plastic support 40.5 x 60 mm	95A151350