

# Safety Light Curtains

## Hand resolution SB4M-30 Series

CARLO GAVAZZI



- Safety Category 4
- Resolution 30 mm (hand)
- Protected height 180-1650 mm
- External Device Monitoring (EDM)
- Fixed Blanking and Floating Blanking
- Cascade configuration
- Auto/Manual restart selectable
- Status/failure diagnosis by LED's
- Easy alignment and installation
- Compact profile
- Approvals:



### Product Description

Safety category 4 light curtains according to IEC 61496-1 and IEC 61496-2. The SB4M-30 series is featured by hand resolution and is provided with External Device Monitoring which allows to utilize these light curtains without external safety control unit. The Blanking function - Fixed or Floating mode selectable - is used in those

applications where material passage or mechanical obstacle presence must not cause machine interruption. The cascade connection allows to combine the functioning of two light curtains-master and slave- placed in different positions. The dip-switches placed in the slot provided in the receiving unit allow quick and safe configuration.

### Ordering Key

**SB4M-30/180-D15**

Safety Light Curtains \_\_\_\_\_  
 Safety Category \_\_\_\_\_  
 Version \_\_\_\_\_  
 Resolution \_\_\_\_\_  
 Protected height \_\_\_\_\_  
 Operating distance \_\_\_\_\_

### Type Selection

| Protected height (mm) | Overall height (mm) | Number of beams | Response time (ms)(Master) | Ordering no. Master | Ordering no. Slave |
|-----------------------|---------------------|-----------------|----------------------------|---------------------|--------------------|
| 180 (7.1 in.)         | 256                 | 8               | 16                         | SB4M30180D15        | SB4N30180D15       |
| 327 (12.9 in.)        | 403                 | 16              | 20                         | SB4M30327D15        | SB4N30327D15       |
| 474 (18.7 in.)        | 550                 | 24              | 23                         | SB4M30474D15        | SB4N30474D15       |
| 621 (24.4 in.)        | 697                 | 32              | 25                         | SB4M30621D15        | SB4N30621D15       |
| 768 (30.2 in.)        | 844                 | 40              | 27                         | SB4M30768D15        | SB4N30768D15       |
| 915 (36.0 in.)        | 991                 | 48              | 30                         | SB4M30915D15        | SB4N30915D15       |
| 1062 (41.8 in.)       | 1138                | 56              | 32                         | SB4M301062D15       | SB4N301062D15      |
| 1209 (47.6 in.)       | 1285                | 64              | 35                         | SB4M301209D15       | SB4N301209D15      |
| 1356 (53.4 in.)       | 1432                | 72              | 38                         | SB4M301356D15       | SB4N301356D15      |
| 1503 (59.2 in.)       | 1579                | 80              | 40                         | SB4M301503D15       | SB4N301503D15      |
| 1650 (65.0 in.)       | 1726                | 88              | 43                         | SB4M301650D15       | SB4N301650D156     |

### General Specifications

|                    |              |                         |                                                                        |
|--------------------|--------------|-------------------------|------------------------------------------------------------------------|
| Safety category    | type 4       | Resolution              | 30 mm                                                                  |
| Operating distance | 0,2.....15 m | Functions (Master unit) | EDM, fixed / floating<br>BLANKING, CASCADE<br>Automatic/manual restart |

### Electrical Specifications

|                      |                       |                 |                           |
|----------------------|-----------------------|-----------------|---------------------------|
| Power supply         | 24 Vdc $\pm$ 20%      | Light emission  | Infrared (880 nm)         |
| Emitter consumption  | 55 mA max             | Output function | 2 PNP                     |
| Receiver consumption | 125 mA max ( no load) | Output current  | 0.5 A max (single output) |

Specifications are subjected to change without notice (10.07.06)

## Environmental Specifications

Operating temperature

 $-10 \div +55^{\circ}\text{C}$ 

Storage temperature

 $-25 \div +70^{\circ}\text{C}$ 

## Mechanical Specifications

Receiver connection

M12 8-poles Standard cable length 3, 5 or 10 m

Emitter connection

M12 4-poles Standard cable length 3, 5 or 10 m

Master/Slave connection

M12 5-poles Standard cable length 0,5 m (included in slave unit package)

Protection degree

IP 65

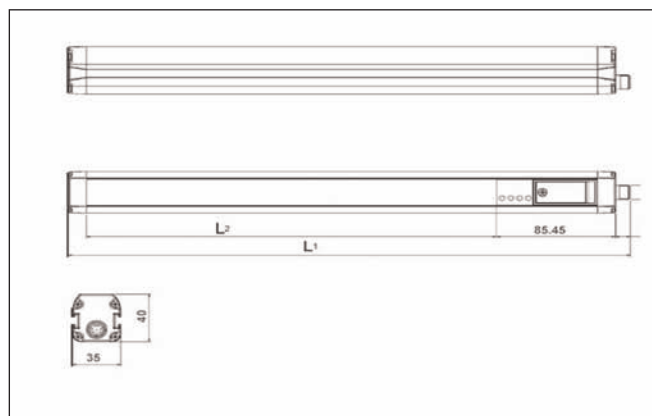
Housing material

Painted aluminium (yellow Ral 1003)

Weight

1.2 Kg max/m of total height

## Dimensions



| MODELL           | L1 (mm) | L2 (mm) |
|------------------|---------|---------|
| SB4y-30/180-D15  | 256     | 147     |
| SB4y-30/327-D15  | 403     | 294     |
| SB4y-30/474-D15  | 550     | 441     |
| SB4y-30/621-D15  | 697     | 588     |
| SB4y-30/768-D15  | 844     | 735     |
| SB4y-30/915-D15  | 991     | 882     |
| SB4y-30/1062-D15 | 1138    | 1029    |
| SB4y-30/1209-D15 | 1285    | 1176    |
| SB4y-30/1356-D15 | 1432    | 1323    |
| SB4y-30/1503-D15 | 1579    | 1470    |
| SB4y-30/1650-D15 | 1726    | 1617    |

y = EDM/ Blanking/Cascade versions

## Wiring Diagrams

