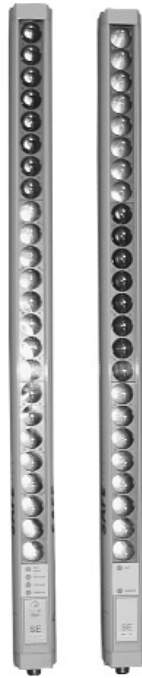# *SAFEasy*™ TYPE 2 LIGHT CURTAINS

Type 2

- *Integrated light curtains for HAND PROTECTION*
- *Version with 35 mm resolution*
- *Special slot for device setting*
- *35 x 40 mm compact profile*

SE2-HAND SERIES

The **SAFEasy**™ light curtains, according to the IEC 61496-1 e IEC 61496-2 standards, are suitable for hand protection of operators exposed to risks.

Different models with eleven standard heights ranging from 150 to 1650 mm, 35 mm resolution and an operating distance reaching 15 m are available.

Specific dip-switches, that can be reached through a slot present on the front of the receiver protected by a lid and opened with a simple screwdriver, guarantee rapid and safe device setting.

The operator is thus able to configure, according to the specific needs, the manual or automatic Restart, as well as the Muting and partial Muting functions.

The emitter-receiver units are optically synchronised and contain all the control circuits, inputs and outputs inside the housing.

The **SAFEasy**™ light curtains have also integrated the test function, automatically activated every second, without stopping the machine's working cycle.

A wide range of industrial applications, requiring operator safety, can be solved by the **SAFEasy**™ light curtains, thanks to the extremely compact dimensions (35x40 mm) and easy connection and installation.

DATASENSOR
value through detection

DATASENSOR

TECHNICAL DATA

Power supply: .... 24 Vdc ± 20% (SELV/PELV)

Consumption: .... 70 mA max. / 2.1 W (emitter)

100 mA max. (receiver without load)

Light emission: .... infrared LED 880 nm

Number of controlled beams: .... *refer to table 1*

Optic interaxis: .... 18.4 mm

Resolution: .... 35 mm

Controlled height: .... *refer to table 2*

Through beam operating distance: .... 0.2 **...** 15 m

Receiver inputs: .... external switches for Muting, Test, Restart

and Override

Receiver indicators: .... green / red SAFE / BREAK LED

2 yellow ALIGNMENT LEDs

green POWER ON LED

Emitter indicators: .... yellow blinking FAILURE LED

green POWER ON LED

Output type: .... 2 PNP

Output current: .... 0.7 A max. (using both outputs)

0.5 A max. (using one single output)

0.25 A max. (for both outputs from 45°C - 55°C)

short-circuit signalling and protection

Response time: .... *refer to table 3*

Selectable functions: .... Total / partial Muting

manual / automatic Restart

refer to table 4

Time-out period: .... Muting: 10 minutes

Override: 2 minutes

Muting signalling lamp: .... 24 V

3 W min. (125 mA), 7 W max. (300 mA)

Receiver connection: .... 8-pole M12 connector

Emitter connection: .... 4-pole M12 connector

Cable length: .... 50 m max. (with 50 nF capacitive load)

Safety category: .... type 2

Electrical protection: .... class 1

Mechanical protection: IP65

IP67 (connector part)

Housing material: .... aluminium with PC Makrolon plastic caps

Weight: .... 1.2 Kg max. / m of total height

Operating temperature: .... -10 **...** +55 °C

Storage temperature: .... -25 **...** +70 °C

Reference standards: .... EN 954-1, IEC 61496-1, IEC 61496-2

Certifications: .... CE TÜV c(UL)us LISTED II3D

TABLES

Model	SE2-35
SE2 *height 150*	8
SE2 *height 300*	16
SE2 *height 450*	24
SE2 *height 600*	32
SE2 *height 750*	40
SE2 *height 900*	48
SE2 *height 1050*	56
SE2 *height 1200*	64
SE2 *height 1350*	72
SE2 *height 1500*	80
SE2 *height 1650*	88
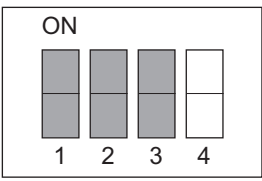
Table 1: **NUMBER OF BEAMS**

Model	SE2-35
SE2 *height 150*	180
SE2 *height 300*	327
SE2 *height 450*	474
SE2 *height 600*	621
SE2 *height 750*	768
SE2 *height 900*	915
SE2 *height 1050*	1062
SE2 *height 1200*	1209
SE2 *height 1350*	1356
SE2 *height 1500*	1503
SE2 *height 1650*	1650

Table 2: **CONTROLLED HEIGHT (mm)**

Model	SE2-35
SE2 *height 150*	15
SE2 *height 300*	17
SE2 *height 450*	18
SE2 *height 600*	20
SE2 *height 750*	22
SE2 *height 900*	23
SE2 *height 1050*	25
SE2 *height 1200*	27
SE2 *height 1350*	28
SE2 *height 1500*	30
SE2 *height 1650*	32

Table 3: **RESPONSE TIME (ms)**

```
ON
┌─────────────────┐
│ ▓   ▓   ▓   □   │
│ ▓   ▓   ▓   □   │
│ 1   2   3   4   │
└─────────────────┘
```

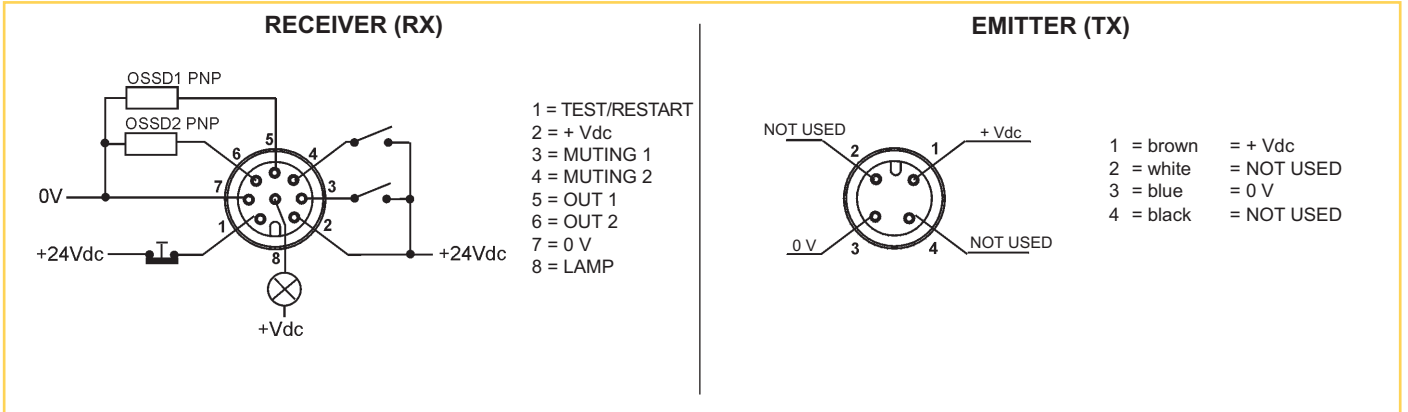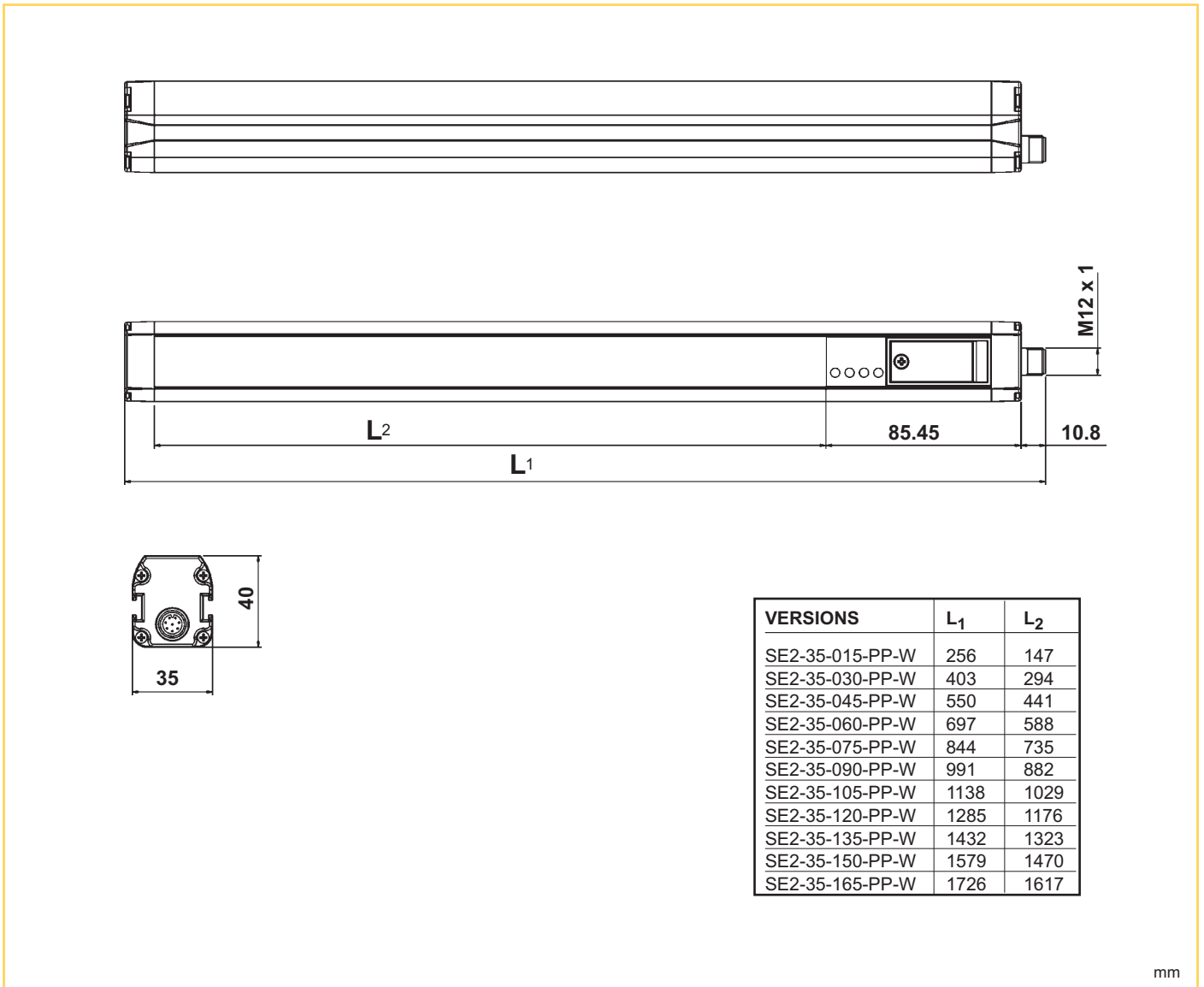**GREY** dip-switches: total / partial Muting selection
WHITE dip-switches: manual / auto. Restart selection

Table 4: **DIP-SWITCH SELECTION**

CONNECTIONS

RECEIVER (RX)

OSSD1 PNP
OSSD2 PNP

0V

+24Vdc

+Vdc

+24Vdc

1 = TEST/RESTART
2 = + Vdc
3 = MUTING 1
4 = MUTING 2
5 = OUT 1
6 = OUT 2
7 = 0 V
8 = LAMP

EMITTER (TX)

NOT USED

+ Vdc

0 V

NOT USED

1 = brown = + Vdc
2 = white = NOT USED
3 = blue = 0 V
4 = black = NOT USED

DIMENSIONS

L_2

L_1

85.45

10.8

M12 x 1

40

35

VERSIONS	L_1	L_2
SE2-35-015-PP-W	256	147
SE2-35-030-PP-W	403	294
SE2-35-045-PP-W	550	441
SE2-35-060-PP-W	697	588
SE2-35-075-PP-W	844	735
SE2-35-090-PP-W	991	882
SE2-35-105-PP-W	1138	1029
SE2-35-120-PP-W	1285	1176
SE2-35-135-PP-W	1432	1323
SE2-35-150-PP-W	1579	1470
SE2-35-165-PP-W	1726	1617

mm

MODEL SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	CODE N°
SE2-35-015-PP-W	type 2 safety light curtain h=150 mm	957101000
SE2-35-030-PP-W	type 2 safety light curtain h=300 mm	957101010
SE2-35-045-PP-W	type 2 safety light curtain h=450 mm	957101020
SE2-35-060-PP-W	type 2 safety light curtain h=600 mm	957101030
SE2-35-075-PP-W	type 2 safety light curtain h=750 mm	957101040
SE2-35-090-PP-W	type 2 safety light curtain h=900 mm	957101050
SE2-35-105-PP-W	type 2 safety light curtain h=1050 mm	957101060
SE2-35-120-PP-W	type 2 safety light curtain h=1200 mm	957101070
SE2-35-135-PP-W	type 2 safety light curtain h=1350 mm	957101080
SE2-35-150-PP-W	type 2 safety light curtain h=1500 mm	957101090
SE2-35-165-PP-W	type 2 safety light curtain h=1650 mm	957101100

ACCESSORY SELECTION AND ORDER INFORMATION

*Please refer also to **Safey Device Accessories***

Note: All the accessories have to be ordered separately

SAFETY DEVICES

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