

**SAFEasy™ TYPE 4 LIGHT CURTAINS**

- **Integrated light curtains for BODY PROTECTION**
- **'T' shaped, 'L' shaped and linear versions with 2 and 3 beams**
- **Pre-assembled, pre-wired and pre-aligned Muting sensors**
- **Integrated Muting lamp**

## SE4T-L MUTING SERIES

The **SAFEasy™** light curtains, conforming with the IEC 61496-1 and IEC 61496-2 standards, are Type 4 safety devices according to EN 954-1 and are particularly suitable for body protection of operators exposed to risk.

The safety light curtains of the **SE4T-L MUTING** series satisfy all applications that require the Muting function, thanks to the use of pre-assembled, pre-cabled and pre-aligned Muting sensors. Models with 'T' integrated Muting sensors for two-way Muting, 'L' integrated Muting sensors for one-way Muting and linear versions without integrated Muting sensors are available.

Models with 2 and 3 safety beams with 500 and 800 mm detection heights offer 3 m operating distance for 'T' and 'L' shaped versions, or 25 m operating distance for linear versions.

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

The user can configure the manual or automatic Restart, L or T Muting mode, a 10' or infinite Muting time-out as well as the EDM function.

All models are equipped with a luminous Muting signalling lamp built-in on the top of the receiving unit.

The compact dimensions (35 x 40 mm), patent-covered, easy installation and excellent performances make the **SAFEasy™** light curtains particularly suitable for applications that require material passage through a dangerous area, as for example in palletisers / depalletisers.

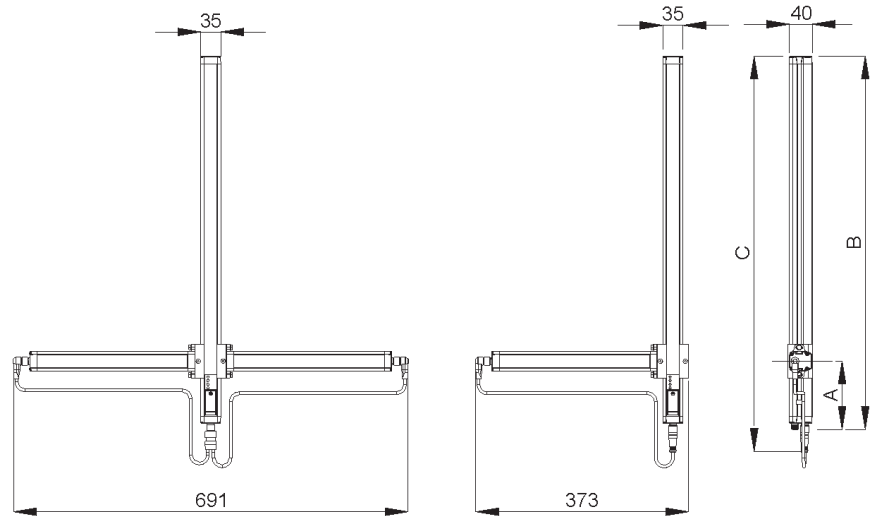


# SAFEASY™ TYPE 4 LIGHT CURTAINS

The main features of the safety light curtains of the SE4T-L MUTING series are given below:

- possibility of vertically adjusting the horizontal arms along the device slot, with an angular regulation of  $\pm 8^\circ$ ;
- use of polarised retroreflex Muting sensors with red emission;
- device configuration through dip-switches positioned on the receiver front side for selection of manual or automatic Restart, the number of Muting sensors, 10 minute or infinite Muting time-out and EDM function;
- simple connection thanks to two M12 8 and 5 pole connectors for the receiver and M12 4-pole connector for the emitter;
- SE-SRT connection box, for on board installation, is available as an accessory, with integrated safety relays for the Reset, Restart, and Override.

## DIMENSIONS



mm

## Patented easy installation



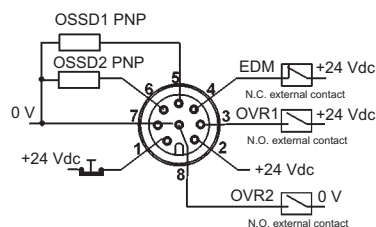
MODEL	A	B	C
SE4-T2-050-PP-W	120...260	653	690
SE4-T3-080-PP-W	120...260	953	990
SE4-L2-050-PP-W	120...260	653	690
SE4-L3-080-PP-W	120...260	953	990
SE4-S2-050-PP-W	-	653	690
SE4-S3-080-PP-W	-	953	990

## Built-in Muting lamp

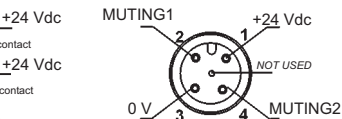


## CONNECTIONS

### RECEIVER (RX)

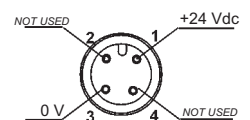


- 1 = white = TEST/START
- 2 = brown = +24 Vdc
- 3 = green = OVERRIDE 1
- 4 = yellow = EDM
- 5 = grey = OSSD1
- 6 = pink = OSSD2
- 7 = blue = 0 V
- 8 = red = OVERRIDE 2



- 1 = brown = +24 Vdc
- 2 = white = MUTING 1
- 3 = blue = 0 V
- 4 = black = MUTING 2
- 5 = grey = NOT USED

### EMITTER (TX)



- 1 = brown = +24 Vdc
- 2 = white = NOT USED
- 3 = blue = 0 V
- 4 = black = NOT USED

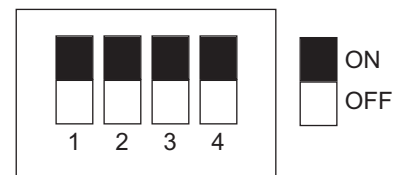
## TECHNICAL DATA

<b>Power supply:</b>	24 Vdc ± 20% (SELV / PELV)
<b>Consumption:</b>	30 mA max. / 0,9 W (emitter) 75 mA max. / 2,2 W (receiver without load) 35 mA max. / 1 W (horizontal arm with sensors OFF)
<b>Light emission:</b>	infrared LED 880 nm
<b>Optic diameter:</b>	Ø 16 mm
<b>Number of controlled beams:</b>	refer to table
<b>Optic interaxis:</b>	refer to table
<b>Resolution:</b>	refer to table
<b>1st beam installation height:</b>	refer to table
<b>Through beam operating distance:</b>	0.5 ... 3 m (SE4-T/SE4-L vers.) 0.5 ... 25 m (SE4-S vers.)
<b>Receiver indicators:</b>	green / red SAFE / BREAK LED 2 yellow ALIGNMENT LEDs green POWER ON LED built-in yellow MUTING LAMP
<b>Emitter indicators:</b>	yellow blinking FAILURE LED green POWER ON LED
<b>Output type:</b>	2 PNP
<b>Output current:</b>	0.5 A max. each output, short-circuit protection
<b>Response time:</b>	14 ms
<b>Selectable functions:</b>	refer to table
<b>Muting signal activation timing:</b>	max. 4 sec.
<b>Time-out period:</b>	Muting: 10 minutes / infinite Override: 2 minutes
<b>Receiver connection:</b>	M12 5-pole / 8-pole connector
<b>Emitter connection:</b>	M12 4-pole connector
<b>Cable length:</b>	50 m max (with 50 nF capacitive load)
<b>Safety category:</b>	Type 4
<b>Electrical protection:</b>	class 1
<b>Mechanical protection:</b>	IP65
<b>Housing material:</b>	aluminium with PC Makrolon plastic caps
<b>Weight:</b>	3.8 Kg max. (T vers.) 2.9 Kg max. (L vers.) 2 Kg max. (Linear vers.)
<b>Operating temperature:</b>	-10 ... +55 °C
<b>Storage temperature:</b>	-25 ... +70 °C
<b>Reference standards:</b>	EN 954-1, IEC 61496-1, IEC 61496-2



## SELECTION TABLE

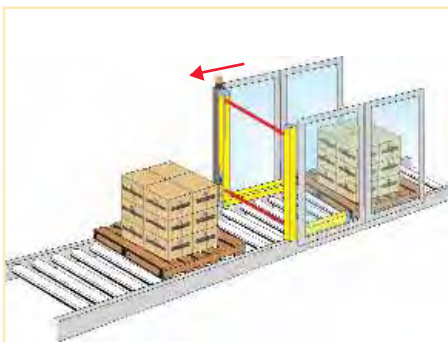
<b>SE4-T2-050-PP-W</b>	
order n°:	957201751
beam n°:	2
optic interaxis:	500 mm
resolution:	515 mm
1st beam installation height:	400 mm
<b>SE4-T3-080-PP-W</b>	
order n°:	957201761
beam n°:	3
optic interaxis:	400 mm
resolution:	415 mm
1st beam installation height:	300 mm
<b>SE4-L2-050-PP-W</b>	
order n°:	957201771
beam n°:	2
optic interaxis:	500 mm
resolution:	515 mm
1st beam installation height:	400 mm
<b>SE4-L3-080-PP-W</b>	
order n°:	957201781
beam n°:	3
optic interaxis:	400 mm
resolution:	415 mm
1st beam installation height:	300 mm
<b>SE4-S2-050-PP-W</b>	
order n°:	957201791
beam n°:	2
optic interaxis:	500 mm
resolution:	515 mm
1st beam installation height:	400 mm
<b>SE4-S3-080-PP-W</b>	
order n°:	957201801
beam n°:	3
optic interaxis:	400 mm
resolution:	415 mm
1st beam installation height:	300 mm



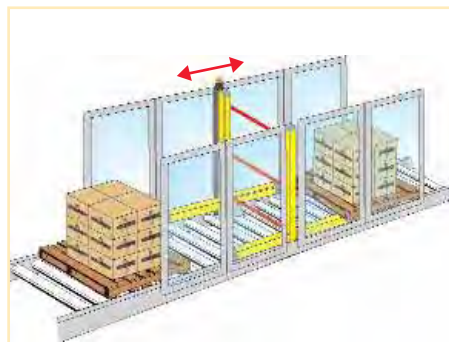
### DIP-SWITCHES

- 1 - 10 min. (ON) / infinite (OFF) Muting time-out
- 2 - 'T' mode (ON) / 'L' mode (OFF)
- 3 - EDM inactive (ON) / EDM active (OFF)
- 4 - Automatic (ON) / manual (OFF) Restart

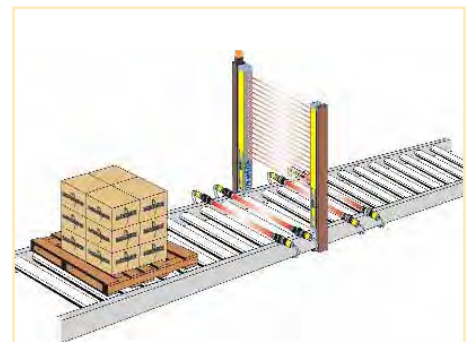
## FUNCTIONING MODE



Version with 'L' integrated Muting sensors for unidirectional Muting



Version with 'T' integrated Muting sensors for bidirectional Muting



Linear version with external Muting sensors

## MODEL SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	ORDER N°
SE4-T2-050-PP-W	Type 4 'T' shaped safety light curtain with 2 beams	957201751
SE4-T3-080-PP-W	Type 4 'T' shaped safety light curtain with 3 beams	957201761
SE4-L2-050-PP-W	Type 4 'L' shaped safety light curtain with 2 beams	957201771
SE4-L3-080-PP-W	Type 4 'L' shaped safety light curtain with 3 beams	957201781
SE4-S2-050-PP-W	Type 4 linear safety light curtain with 2 beams	957201791
SE4-S3-080-PP-W	Type 4 linear safety light curtain with 3 beams	957201801

## ACCESSORY SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	ORDER N°
SE-SRT	Muting connection box	95ASE1001

*Please refer also to **Safety Device Accessories***

**Note:** all accessories have to be ordered separately

# SAFETY DEVICES

CTi Automation - Phone: 800.894.0412 - Fax: 208.368.0415  
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