

# SAFETY LIGHT CURTAINS



[www.electronicswitches.in](http://www.electronicswitches.in)

 **ELECTRONIC SWITCHES**

## CLAMPS (ACCESSORIES)



# SAFETY LIGHT CURTAINS FOR POWER PRESSES

## FEATURES

- Offers International Safety Standards : IEC 61496.
- Easy to install & can be mounted in any position. Vertical / Horizontal.
- Non-Critical alignment between Emitter & Receiver.
- Blanking / By-Passing individual channel is provided through software.
- System operation is unaffected by mains power fluctuations.
- Machine OFF if screen is too dirty or oily.
- Barrier operates on cyclic scanning photo-electric infra-red techniques.
- Various barrier heights are available for covering 90 mm to 1970 mm .
- Higher covering heights available upon request.
- Use of solid state components & special construction technique ensures that barrier is not affected by normal vibrations & shocks.
- Sensor connections are provided through plug in connectors.
- Self Checking Circuitry with two outputs continuously monitors failure of any of the beam in the system and stop the machine if failure is detected.
- LED Indications are provided for status indication of each channel.
- LED indications are also provided for each output.
- Choice for suitable Control Unit available as per different working conditions.
- Flexible fixing arrangements to suit individual requirement.
- Increases productivity while maintaining required safety.

## SENSOR SPECIFICATIONS

Power Supply	: 12 - 24 Volts DC
Supply Protection	: Reverse Polarity Protected
Output	: Dual Output : PNP or NPN / NO or NC
Output Indications	: Through LEDs
Channel Indication	: LED indication for each channel
Response Time	: On to Off : 10 - 15 m sec. Off to On : 50 - 100 m sec
Restart	: Automatic
No of beams	: 6, 8, 10, 16, 24, 32, 40, 48, 56, 64 nos.
Beam By Pass	: Provided in hand/body protection models
Protected Heights	: 90 - 1970 mm
Pitch offered	: 11 - 20 - 30 - 40 - 50 - 90 mm
Adjustable Range	: Up to 3 meters (Higher range up to 20 meters available)
Electrical Connections	: Plug in Connector for Emitter & Receiver
Standard Cable length	: 5 meters for Emitter, 3 meters for Receiver
Operating Temperature	: Up to 55 Degrees centigrade
Fastening Modes	: Slide Slot on the back with adjustable height
Cross Section	: 36 x 42 mm
Applicable to	: Directly work with PLCs / Controllers
Suitable for	: Machines with quick emergency stop
Protections	: Output short circuit protected.
Vibration Resistance	: Amplitude : 0.75 mm (p) Freq : 10 - 55 HZ
	: Rate : 1 Octave / min
Operating ambient Light	: 500 Lux ( max.) when source is places opposite to receiver
	: > 3000 lux when source placed at an angle of 20 degrees

## ACCESSORIES - CONTROLLERS



Control Unit : Wall Mount  
( Code : 2CW )



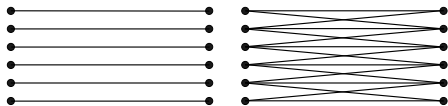
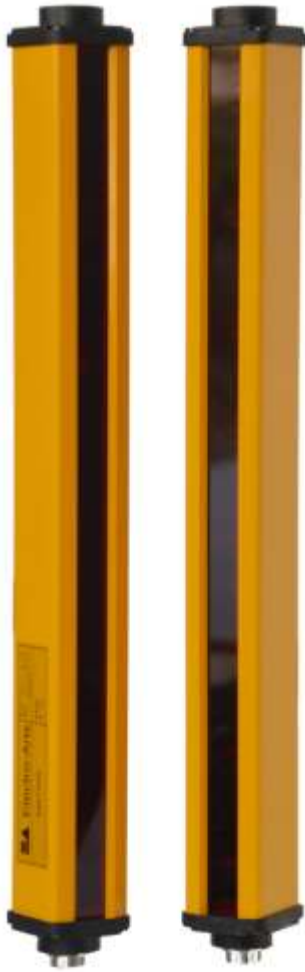
Control Unit : Panel Mount  
( Code : 2CP )



Control Unit : DIN Mount  
( Code : 2CD )

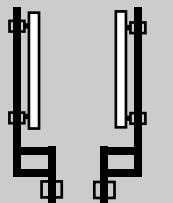


All the models are available with CE mark. Replace 2OP with CE for models with CE certification.  
IEC Standard: IEC 61496



Type : Parallel Beam  
No of Beams : 6 nos  
Active Beams: 6 nos  
Min.Range : 300 mm

Type : Cross Beam  
No of Beams : 6 nos  
Active Beams:16 nos  
Min.Range : 500 mm



Mounting Stand  
( Code : MS )



Vibration Dampers  
( Code : VD )

## HAND Protection : Models with 2 Outputs

Supply : 12 - 24 Volts DC, Output : PNP / NPN  
Covered Range : LC : 300 mm - 3/5/10/15/20 m LX : 500 mm - 3/5/10/15/20 m  
LED Indication and By-Pass for each beam LX (Pitch50):1- 3/5/10/15/20 m

Protected Height mm	Parallel Beam		Cross Beam		Pitch mm	Overall Height mm
	Models	Beam	Models	Beam		
150	LC 0630	6	LX 0630	16	30	245
180	LC 1020	10	LX 1020	28	20	295
200	LC 0640	6	LX 0640	16	40	295
210	LC 0830	8	LX 0830	22	30	290
250	LC 0650	6	LX 0650	16	50	345
270	LC 1030	10	LX 1030	28	30	365
280	LC 0840	8	LX 0840	22	40	375
300	LC 1620	16	LX 1620	46	20	405
350	LC 0850	8	LX 0850	22	50	440
360	LC 1040	10	LX 1040	28	40	455
380	LC 2020	20	LX 2020	58	20	485
450	LC 1050	10	LX 1050	28	50	545
450	LC 1630	16	LX 1630	46	30	530
500	LC 2620	26	LX 2620	76	20	615
600	LC 1640	16	LX 1640	46	40	685
620	LC 3220	32	LX 3220	94	20	740
690	LC 2430	24	LX 2430	70	30	770
750	LC 1650	16	LX 1650	46	50	840
780	LC 4020	40	LX 4020	118	20	885
920	LC 2440	24	LX 2440	70	40	1010
930	LC 3230	32	LX 3230	94	30	1010
1150	LC 2450	24	LX 2450	70	50	1240
1170	LC 4030	40	LX 4030	118	30	1255
1240	LC 3240	32	LX 3240	94	40	1335
1410	LC 4830	48	LX 4830	142	30	1485
1550	LC 3250	32	LX 3250	94	50	1640
1560	LC 4040	40	LX 4040	118	40	1660
1650	LC 5630	56	LX 5630	166	30	1715
1890	LC 6430	64	LX 6430	190	30	1970

First two digits of model indicates number of beams and other two indicates pitch  
As per Safety Standards models with TWO outputs are preferred  
Additional models with multiple of 8 beams may be offered

## FINGER Protection : Models with 2 Outputs

Supply : 12 - 24 Volts DC, Output : PNP / NPN  
Covered Range : 150 - 3000 mm, LED Indication for final output

Protected Height mm	Cross Beam		Pitch mm	Overall Height mm
	Models	Beam		
100	FX 1011	28	11	205
165	FX 1611	46	11	275
245	FX 2411	70	11	370
340	FX 3211	94	11	455
430	FX 4011	118	11	545
515	FX 4811	142	11	630
605	FX 5611	166	11	720
695	FX 6411	190	11	805

First two digits of model indicates number of beams and other two indicates pitch  
As per Safety Standards models with TWO outputs are preferred  
Additional models with multiple of 8 beams may be offered

# SAFETY LIGHT CURTAINS

## BODY PROTECTION : Models with 2 Outputs

Supply : 12 - 24 volts DC

Covered Range : 500 mm & above, Output : PNP / NPN

LED Indication and Beam By-Pass for each channel

Protected Height	Parallel Beam		Cross Beam		Pitch	Overall Height
	Models	Beam	Models	Beam		
270	LC 0490	4	LX 0490	10	90	360
630	LC 0890	8	LX 0890	22	90	720
990	LC 1290	12	LX 1290	34	90	1080
1350	LC 1690	16	LX 1690	46	90	1440
1710	LC 2090	20	LX 2090	58	90	1800
2070	LC 2490	24	LX 2490	70	90	2160
2430	LC 2890	28	LX 2890	82	90	2520

First two digits of model indicates number of beams and other two indicates pitch

As per Safety Standards models with TWO outputs are preferred

Additional models with multiple of 4 beams may be offered

## DIFFUSED AREA SENSOR

Supply : 12 - 24 Volts DC

Covered Range : UPTO 1000 mm, Output : PNP / NPN

LED Indication for final output

Protected Height	Diffuse Scan	Overall Height
mm	Models	mm
350	DA 0850	440
750	DA 1650	840
1150	DA 2450	1240
1550	DA 3250	1640
1950	DA 4050	2045

Additional models with multiple of 4 beams and different pitch such as 30mm or 40 mm can be offered as may be the requirement. Please contact with specific details.

Here the range is defined with white photographic paper

## ORDER INFORMATION

Model	LC	-	1030	-	4	-	03	-	2OP	-	D
	LC LX FX		MODELS		4 3 2 1		03 05 10 15 20		2OP 1OP		D CW CP CD
	LC LX FX		PARALLEL CROSS CROSS								
	10 30		NO OF BEAMS PITCH								
	4 3 2 1		OUTPUT - PNP - NC OUTPUT - PNP - NO OUTPUT - NPN - NC OUTPUT - NPN - NO								
	03 05 10 15 20		RANGE - 03 METER RANGE - 05 METER RANGE - 10 METER RANGE - 15 METER RANGE - 20 METER								
	2 OP 1 OP		OUTPUT - 2 OUTPUT OUTPUT - 1 OUTPUT								
	D CW CP CD		SENSOR - DC TYPE - BUILT-IN CONTROLLER - OUTPUT PNP OR NPN CONTROL UNIT - WALL MOUNT - 220 VAC - RELAY OUTPUT CONTROL UNIT - PANEL MOUNT - 220 VAC - RELAY OUTPUT CONTROLLER - DIN RAIL MOUNT - 220 VAC - RELAY OUTPUT								



WaterProof Housings



Diffuse Area Sensor



Sensor Protection



**ELECTRONIC SWITCHES (India) P. Ltd;**

Plot No : K-11, MIDC Area, Ambad  
Nashik 422 010, Maharashtra, India

Phone : 91 253 6697701 / 02 / 05

Email : electronic.switches@gmail.com

Website : www.electronicswitches.in