

# Preventa™ Light Curtains Type XUSL

Catalog Supplement to 9007CT0201

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**Schneider**  
Electric



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## Light curtains

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<b>For finger or hand protection</b>	
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### Presentation

### Protection of personnel

Light curtains are electro-sensitive protection equipment (ESPE) designed for the protection of persons operating or working in the vicinity of machinery, by stopping the dangerous movement of parts as soon as one of the light beams is broken. In particular, they provide protection for the **safety of personnel** operating dangerous machinery (annex IV of 98/37/EC) but they are equally suitable for use with many other types of machines. They make it possible to protect personnel while allowing free access to machines.

The absence of a door or guard reduces the time required for loading, inspection or adjustment operations as well as making access easier.

### Directives and standards

### Conformity to standards

**These light curtains conform to:**

- European Machinery Safety Directive 98/37/EC and European Work Equipment Directive 89/655/EEC,
- Low Voltage Directives 73/23/EEC and 93/68/EEC and also, the Electromagnetic Compatibility Directive 89/336/EEC,
- Standard EN/IEC 61496-1, EN/IEC 61496-2 (electro-sensitive protection equipment: ESPE),
- Standard EN 60825 (emission power),
- Standard EN 999/ISO 13855 (installation positioning),

These light curtains are UL, CSA and TÜV certified.

### Applications

### Main applications

- Applications for type 2 products:
  - assembly and packaging lines,
  - conveying and handling lines,
  - warehousing and storage systems,
  - waste disposal skips.
- Types of machine requiring the use of type 4 products:
  - presses (all types), shears and trimmers,
  - hoisting equipment,
  - saws (all types),
  - machine tools (lathes, milling machines, machining centers),
  - woodworking machines (planing machines, lathes, spindle moulding machines, side and face milling cutters),
  - textile machinery (carding machines, weaving looms, steam rooms),
  - assembly machines,
  - assembly robots.

### Safety requirements

### Detection of anomalies

**Detection of anomalies liable to compromise safety and stopping of the machine**

The design of the machine and its control system must be to the same level of safety as that of the light curtain in order to provide the immediate stopping of the machines dangerous movement as soon as the hazardous zone, protected by the light curtain, is entered.

It must not be possible to enter the protected zone without breaking the protective light beams. The light curtain must therefore be installed in such a manner that the light beams cannot be avoided.

The machine can only be restarted if no danger exists and no personnel are present in the hazardous zone. The risk that persons might be inside the protected zone but out of the protective light beams must be addressed.

### Functions

#### Protection mode

AUTO/MAN (automatic/manual): this is what standard EN/IEC 61496 calls start (or restart) interlock of the light curtain:

- in AUTO mode: on power-up or after the beams have been cleared, the light curtain resets itself automatically (closing of the OSSD output safety circuits),
- in MANUAL mode: on power-up or after the beams have been cleared, the light curtain keeps its output safety circuits in the “open” position. Pressing (and releasing) the reset button will cause actual resetting of the light curtain (and closing of its OSSD output safety circuits).

**Note:** in all cases, a general start instruction for the machine will trigger its actual start-up.

#### Monitoring of external switching devices

Also called EDM (External Devices Monitoring) by standard EN/IEC 61496, this consists of monitoring the function (open or closed), together with the time taken to reach that condition, of the machines power switching components.

#### Auxiliary output

This is a low power solid-state output for signalling, when configurable (XUSLM/ XUSLP), to the automation system. This output closes when the light curtain switches to run mode.

#### Alarm

This is a low power solid-state output for signalling to the automation system. This output closes when the light curtain switches to alarm mode.

#### Signalling

LED display of operating modes and alarm.

#### Alignment aid

Display by visible infrared LED of each beam broken.

#### Muting (inhibition)

When activated, the “muting” function inhibits the detection function of the light curtain.

Activation (or deactivation) is achieved by means of standard sensors (photo-electric or other). When activated, a signal is sent to the automation system. This function is used to allow objects to access the hazardous zones during the process. Signalling informs the operator or operators that they are not protected.

#### Blanking

This function makes it possible to inhibit detection by a selected group of light beams in the light curtain (and not all the beams as with muting). This function (adapted to the size of the objects) allows the presence of objects during process operations. Blanking effectively increases the Minimum Object Sensitivity (MOS). This imposes a greater safety distance, increasing the minimum distance between the light curtain and the hazard. In addition, the use of additional protection each side of the object present must be included, in order to prevent any intrusion into the free areas.

#### Floating blanking

This function makes it possible to inhibit one or two light beams (adjacent or otherwise), anywhere in the light curtain. This configuration is used, for example, for metal plate feeding applications on folding presses or shears.

#### Blanking plus floating blanking

The Blanking (fixed inhibition of light beams) and Floating Blanking (moving inhibition of one or two light beams) functions can be combined.

Light curtain type		XUSLBQ6A●●●● XUSLDMQ6A●●●● 0.55 in. (14 mm)	XUSLBR5A●●●● 1.18 in. (30 mm)	XUS LDMY5A●●●● 1.18 in. (30 mm)
<b>Environment characteristics</b>				
<b>Conformity to standards</b>		ANSI/RIA R15.06, ANSI B11:19-1990, OSHA 1910.217(C), OSHA 1910.212, EN/IEC 61496-1 and EN/IEC 61496-2 and IEC 61508-1, 2 (Type 4 ESPE)		
<b>Certifications</b>		CE, TUV, UL, CSA		
<b>European directives</b>		Machinery directive 98/37/EC, Work equipment directive 89/655/EEC and EMC directive 89/336 EEC ROHS directive 2002/95/EC		
<b>Ambient air temperature</b>	Operating	°F (°C)	14...+ 131 (- 10...+ 55)	
	For storage	°F (°C)	- 13...+ 167 (- 25...+ 75)	
<b>Relative humidity</b>		95% maximum, without condensation		
<b>Degree of protection</b>		IP 65		
<b>Shock and vibration resistance</b>		Conforming to IEC 61496-1 Shock resistance: 10 gn, impulse 16 ms Vibration resistance: 10...55 Hz, amplitude: 0.35 ± 0.05 mm		
<b>Materials</b>		Casing: aluminium with electrostatically applied red (RAL 3000) polyester paint finish; end caps: 20% fiberglass impregnated polycarbonate.		
<b>Mounting</b>		End brackets (included)		
<b>Optical characteristics</b>				
<b>Minimum detection capacity (MOS)</b>		0.55 in. (14 mm) (finger)   1.18 in. (30 mm) (hand)		
<b>Nominal sensing distance (Sn)</b>		ft (m)	1...23 (0.3...7) or 9.8 (3) with PDM (1)	1...26.2 (0.3...8) or 65.6 (20) with PDM (1)   1...65.6 (0.3...20) or 26.2 (8) with PDM (1)
<b>Protected height</b>		in (mm)	11...53.5 (280...1360)	12.6...83.5 (320...2120)
<b>Effective aperture angle (EAA)</b>		2.5° at 9.8ft. (3 m) (3° when used with IP 67 protection tube)		
<b>Light source</b>		GaAlAs LED, 880 nm		
<b>Immunity to ambient light</b>		Conforming to IEC/EN 61496-2		
<b>Electrical characteristics</b>				
<b>Response time</b>		ms	23...41	23...32
<b>Power supply</b>		--- 24 V ± 20% 2 A conforming to EN/IEC 61496 and EN/IEC 60204-1		
		Transmitter	mA	285
		Receiver	A	1.8 (with maximum load)
<b>Maximum current consumption (no-load)</b>		Transmitter	mA	285
		Receiver	mA	450
<b>Immunity to interference</b>		Conforming to EN 61496-1		
<b>Safety outputs OSSD (Output Signal Switching Devices)</b>		2 solid-state PNP (N/O) outputs ≤ 625 mA, --- 24 V (Short-circuit protected)		
<b>Auxiliary output</b>		1 solid-state output 100 mA, --- 24 V, PNP or NPN (depending on model)		
<b>Monitoring activation of output switching devices (MPCE/EDM)</b>		50 mA, --- 24 V and start/restart 10 mA		
<b>Signalling</b>		Transmitter	1 LED (power supply)	
		Receiver	4 LEDs (stop, run, interlock, ECS/B Blanking or FB Floating Blanking)	
<b>Connections (2)</b>				
Light curtains		Transmitter	M12, 5-pin, female connector	
		Receiver	M12, 8-pin, female connector	
Segments XUSLDS		Transmitter/Receiver	M12, 4-pin, female connector on flying lead	
XPSCM1		Receiver	M12, 4-pin, female connector	
<b>Pre-wired connectors c.s.a.</b>		Transmitter/Receiver	22 AWG (0.32 mm <sup>2</sup> ) conductors with M12, 5-pin, male connector	
		Receiver	22 AWG (0.32 mm <sup>2</sup> ) conductors with M12, 8-pin, male connector	
<b>Jumper cables c.s.a.</b>		Transmitter/receiver	22 AWG (0.32 mm <sup>2</sup> ) conductors with M12, 4-pin, male/female connectors	
<b>Cable resistance of pre-wired connectors</b>		Transmitter/receiver	Ω	0.1686 per ft. (0.05531 per m)
<b>Cable lengths</b>		Pre-wired connectors with cable lengths of 16.4, 32.8, 49.2, and 98.4 ft (5, 10, 15 and 30 m) are available separately. The maximum cable length is 196.9 ft (60 m), depending on the load current and power supply.		

(1) PDM: Programming and Diagnostic Module, available as option, see page 10.

(2) Pre-wired connectors to be ordered separately, see page 10.

# Safety detection solutions

## Safety light curtains, type 4

### Light curtains Optimum XUSLB and Universal XUSLDM with solid-state output

Light curtain type		XUSLB●●●●●●	XUSLDM●●●●●●
<b>Functions</b>			
Functions	Accessible by cabling alone (1)	<input type="checkbox"/> Automatic start <input type="checkbox"/> Auxiliary output (PNP, status signalling) <input type="checkbox"/> Test (MTS: Monitoring Test Signal) <input type="checkbox"/> Alignment aid by display of each light beam broken <input type="checkbox"/> LED display of operating modes and anomalies	
	Accessible via programming and diagnostic module	<input type="checkbox"/> Auto/Manual <input type="checkbox"/> Monitoring of external switching devices (EDM: External Device Monitoring) <input type="checkbox"/> Light beam coding (A or B) <input type="checkbox"/> Sensing distance (short, long) <input type="checkbox"/> Programming and downloading of configuration settings, via programming and diagnostic module (PDM) <input type="checkbox"/> Display of operating modes and anomalies by LED and/or PDM (2)	<input type="checkbox"/> Auto/Manual, manual 1st cycle <input type="checkbox"/> Monitoring of external switching devices (EDM: External Device Monitoring) <input type="checkbox"/> Blanking (ECS/B) <input type="checkbox"/> Monitored Blanking <input type="checkbox"/> Floating Blanking (FB) <input type="checkbox"/> Reduction of resolution <input type="checkbox"/> Response time (normal, slow) <input type="checkbox"/> Light beam coding (A or B) <input type="checkbox"/> Sensing distance (short, long) <input type="checkbox"/> Auxiliary output (alarm or status signalling, PNP or NPN) <input type="checkbox"/> Start button (N/O or N/C, 0 V or 24 V) <input type="checkbox"/> Muting (see page 18) <input type="checkbox"/> Cascadable versions with up to 4 segments total (256 light beams max., modular finger/hand) using segments XUSLDS <input type="checkbox"/> Programming and downloading of configuration settings, via programming and diagnostic module (PDM) <input type="checkbox"/> Display of operating modes and anomalies by LED and/or PDM (2)
<b>Monitoring of external switching devices</b> (EDM = External Device Monitoring)		Monitoring of the function (open or closed) as well as the response time of the power components.	
<b>“Test” function</b>		Instigates the stop instruction of the light curtain by opening the contact (simulated intrusion)	
<b>“Muting” function</b> (inhibition)		<input type="checkbox"/> With external module XPSLCM1150	<input type="checkbox"/> Integrated when using connection module XPSLCM1 for connecting sensors and “muting” indicator light <input type="checkbox"/> or with module XPSLCM1150

(1) Not requiring use of PDM.

(2) PDM: Programming and Diagnostic Module, available as option, see page 10.

# Safety detection solutions

## Safety light curtains, type 4

### Light curtains Optimum XUSLB with solid-state output



XUSLBQ6A.....



XUSLBR5A.....

#### Transmitter-receiver pairs for finger protection (1)

Detection capacity 0.55 in. (14 mm). Sensing distance 1 to 22.9 ft (0.3 to 7 m) (or 9.8 ft (3 m) with PDM).

■ 2 PNP safety outputs

Protected height	Response time	Number of light beams	Auxiliary output	Reference (2)	Weight
in (mm)	ms				lb. (kg)
11 (280)	23	24	PNP	XUSLBQ6A0280	3.95 (1.790)
12.6 (320)	23	32	PNP	XUSLBQ6A0320	4.34 (1.970)
14.2 (360)	23	36	PNP	XUSLBQ6A0360	4.74 (2.150)
17.3 (440)	23	44	PNP	XUSLBQ6A0440	5.51 (2.500)
20.5 (520)	23	52	PNP	XUSLBQ6A0520	6.33 (2.870)
23.6 (600)	23	60	PNP	XUSLBQ6A0600	7.10 (3.220)
28.3 (720)	32	72	PNP	XUSLBQ6A0720	8.29 (3.760)
29.9 (760)	32	76	PNP	XUSLBQ6A0760	8.69 (3.940)
34.6 (880)	32	88	PNP	XUSLBQ6A0880	9.85 (4.470)
36.2 (920)	32	92	PNP	XUSLBQ6A0920	10.25 (4.650)
37.8 (960)	32	96	PNP	XUSLBQ6A0960	10.65 (4.830)
40.9 (1040)	32	104	PNP	XUSLBQ6A1040	11.44 (5.190)
44.1 (1120)	32	112	PNP	XUSLBQ6A1120	12.21 (5.540)
47.2 (1200)	32	120	PNP	XUSLBQ6A1200	13.01 (5.900)
53.5 (1360)	41	136	PNP	XUSLBQ6A1360	13.62 (6.180)

#### Transmitter-receiver pairs for hand protection (1)

Detection capacity 1.2 ft (30 mm). Sensing distance 1 to 26.2 ft (0.3 to 8 m) (or 65.6 ft (20 m) with PDM).

■ 2 PNP safety outputs

Protected height	Response time	Number of light beams	Auxiliary output	Reference (2)	Weight
in (mm)	ms				lb. (kg)
12.6 (320)	23	16	PNP	XUSLBR5A0320	4.34 (1.970)
14.2 (360)	23	18	PNP	XUSLBR5A0360	4.74 (2.150)
17.3 (440)	23	22	PNP	XUSLBR5A0440	5.51 (2.500)
20.5 (520)	23	26	PNP	XUSLBR5A0520	6.33 (2.870)
23.6 (600)	23	30	PNP	XUSLBR5A0600	7.10 (3.220)
26.8 (680)	23	34	PNP	XUSLBR5A0680	7.89 (3.580)
29.9 (760)	23	38	PNP	XUSLBR5A0760	8.69 (3.940)
34.6 (880)	23	44	PNP	XUSLBR5A0880	9.85 (4.470)
36.2 (920)	23	46	PNP	XUSLBR5A0920	10.25 (4.650)
40.9 (1040)	23	52	PNP	XUSLBR5A1040	11.44 (5.190)
47.2 (1200)	23	60	PNP	XUSLBR5A1200	13.01 (5.900)
53.5 (1360)	23	68	PNP	XUSLBR5A1360	14.59 (6.620)
55.1 (1400)	23	70	PNP	XUSLBR5A1400	14.99 (6.800)
59.8 (1520)	32	76	PNP	XUSLBR5A1520	16.16 (7.330)
61.4 (1560)	32	78	PNP	XUSLBR5A1560	16.53 (7.500)
64.6 (1640)	32	82	PNP	XUSLBR5A1640	17.35 (7.870)
67.7 (1720)	32	86	PNP	XUSLBR5A1720	18.14 (8.230)
70.9 (1800)	32	88	PNP	XUSLBR5A1800	18.94 (8.590)
75.6 (1920)	32	96	PNP	XUSLBR5A1920	20.11 (9.120)
83.5 (2120)	32	106	PNP	XUSLBR5A2120	22.09 (10.020)

(1) Supplied with a test rod, 2 sets of 2 brackets with mounting hardware, user guide with certificate of conformity on CD-ROM and 1 arc suppressor set.

**Programming and Diagnostic Module (if required) and pre-wired connectors to be ordered separately, see page 10.**

(2) To order a receiver only, add the letter **R** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUSLBR5A0320 becomes **XUSLBR5A0320R** for the receiver only.

To order a transmitter only, add the letter **T** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUSLBR5A0320 becomes **XUSLBR5A0320T** for the transmitter only.

#### Other versions

Combining type 4 safety light curtains with external module for muting function.

See catalog MKTED208051EN pages 2/222 to 2/227.



# Safety detection solutions

## Safety light curtains, type 4

### Light curtains Universal XUSLDM with solid-state output



XUSLDMQ.....



XUSLDMY.....

#### Transmitter-receiver pairs for finger protection (1)

Detection capacity 0.55 in. (14 mm). Sensing distance 1 to 22.9 ft (0.3 to 7 m) (or 9.8 ft (3 m) with PDM).

■ 2 PNP safety outputs

Protected height	Response time		Number of light beams	Auxiliary output	Reference (2)	Weight
	Normal	Slow				
in (mm)	ms	ms				lb. (kg)
11 (280)	23	38	24	PNP/NPN	XUSLDMQ6A0280	3.95 (1.790)
12.6 (320)	23	38	32	PNP/NPN	XUSLDMQ6A0320	4.34 (1.970)
14.2 (360)	23	38	36	PNP/NPN	XUSLDMQ6A0360	4.74 (2.150)
17.3 (440)	23	38	44	PNP/NPN	XUSLDMQ6A0440	5.51 (2.500)
20.5 (520)	23	38	52	PNP/NPN	XUSLDMQ6A0520	6.39 (2.900)
23.6 (600)	23	38	60	PNP/NPN	XUSLDMQ6A0600	7.10 (3.220)
28.3 (720)	32	53	72	PNP/NPN	XUSLDMQ6A0720	8.29 (3.760)
29.9 (760)	32	53	76	PNP/NPN	XUSLDMQ6A0760	8.69 (3.940)
34.6 (880)	32	53	88	PNP/NPN	XUSLDMQ6A0880	9.85 (4.470)
36.2 (920)	32	53	92	PNP/NPN	XUSLDMQ6A0920	10.25 (4.650)
37.8 (960)	32	53	96	PNP/NPN	XUSLDMQ6A0960	10.65 (4.830)
40.9 (1040)	32	53	104	PNP/NPN	XUSLDMQ6A1040	11.44 (5.190)
44.1 (1120)	32	53	112	PNP/NPN	XUSLDMQ6A1120	12.21 (5.540)
47.2 (1200)	32	53	120	PNP/NPN	XUSLDMQ6A1200	13.01 (5.900)
53.5 (1360)	41	68	136	PNP/NPN	XUSLDMQ6A1360	14.59 (6.620)

#### Transmitter-receiver pairs for hand protection (1)

Detection capacity 1.2 ft (30 mm). Sensing distance 1 to 65.6 ft (0.3 to 20 m) (or 26.2 ft (8 m) with PDM).

■ 2 PNP safety outputs

Protected height	Response time		Number of light beams	Auxiliary output	Reference (2)	Weight
	Normal	Slow				
in (mm)	ms	ms				lb. (kg)
12.6 (320)	23	38	16	PNP/NPN	XUSLDMY5A0320	4.34 (1.970)
14.2 (360)	23	38	18	PNP/NPN	XUSLDMY5A0360	4.74 (2.150)
17.3 (440)	23	38	22	PNP/NPN	XUSLDMY5A0440	5.51 (2.500)
20.5 (520)	23	38	26	PNP/NPN	XUSLDMY5A0520	6.33 (2.870)
23.6 (600)	23	38	30	PNP/NPN	XUSLDMY5A0600	7.10 (3.220)
26.8 (680)	23	38	34	PNP/NPN	XUSLDMY5A0680	7.89 (3.580)
29.9 (760)	23	38	38	PNP/NPN	XUSLDMY5A0760	8.69 (3.940)
34.6 (880)	23	38	44	PNP/NPN	XUSLDMY5A0880	9.85 (4.470)
36.2 (920)	23	38	46	PNP/NPN	XUSLDMY5A0920	10.25 (4.650)
40.9 (1040)	23	38	52	PNP/NPN	XUSLDMY5A1040	11.44 (5.190)
47.2 (1200)	23	38	60	PNP/NPN	XUSLDMY5A1200	13.01 (5.900)
53.5 (1360)	23	38	68	PNP/NPN	XUSLDMY5A1360	14.59 (6.620)
55.1 (1400)	23	38	70	PNP/NPN	XUSLDMY5A1400	14.99 (6.800)
59.8 (1520)	32	53	76	PNP/NPN	XUSLDMY5A1520	16.16 (7.330)
61.4 (1560)	32	53	78	PNP/NPN	XUSLDMY5A1560	16.53 (7.500)
64.6 (1640)	32	53	82	PNP/NPN	XUSLDMY5A1640	17.35 (7.870)
67.7 (1720)	32	53	86	PNP/NPN	XUSLDMY5A1720	18.14 (8.230)
70.9 (1800)	32	53	88	PNP/NPN	XUSLDMY5A1800	18.94 (8.590)
75.6 (1920)	32	53	96	PNP/NPN	XUSLDMY5A1920	20.11 (9.120)
83.5 (2120)	32	53	106	PNP/NPN	XUSLDMY5A2120	22.09 (10.020)

(1) Supplied with a test rod, 2 sets of 2 brackets with mounting hardware, user guide with certificate of conformity on CD-ROM and 1 arc suppressor set.

Programming and Diagnostic Module (if required) and pre-wired connectors to be ordered separately, see page 10.

(2) To order a receiver only, add the letter **R** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUSLDMY5A0320 becomes XUSLDMY5A0320R for the receiver only.

To order a transmitter only, add the letter **T** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUSLDMY5A0320 becomes XUSLDMY5A0320T for the transmitter only.

**Other versions** Combining type 4 safety light curtains with external module for muting function. See catalog MKTED208051EN pages 2/222 to 2/225

# Safety detection solutions

## Safety light curtains, type 4

Segments XUSLDS for Universal XUSLDM light curtains



XUSLDM + XUSLDS

### Segments for cascadable Universal light curtains

Cascadable versions with up to 4 segments total (256 light beams max., modular finger/hand) using segments XUSLDS

### Configuration of segments XUSLDS

#### Two segments

Number of light beams	Response time
	ms
0 to 65	23
66 to 120	32
121 to 174	41
175 to 229	50
230 to 256	59

#### Three segments

Number of light beams	Response time
	ms
0 to 59	23
60 to 114	32
115 to 168	41
169 to 223	50
224 to 256	59

#### Four segments

Number of light beams	Response time
	ms
0 to 53	23
54 to 108	32
109 to 162	41
163 to 217	50
218 to 256	59

# Safety detection solutions

## Safety light curtains, type 4

### Segments XUSLDS for Universal XUSLDM light curtains



XUSLDSQ6A.....

#### Transmitter-receiver pairs for finger protection (1)

Detection capacity 0.55 in. (14 mm).. Sensing distance depending on XUSLDM light curtain used

■ Segments for cascadable Universal light curtains (2)

Protected height in (mm)	Number of light beams	Reference (3)	Weight lb. (kg)
11 (280)	24	XUSLDSQ6A0280	3.95 (1.790)
12.6 (320)	32	XUSLDSQ6A0320	4.34 (1.970)
14.2 (360)	36	XUSLDSQ6A0360	4.74 (2.150)
17.3 (440)	44	XUSLDSQ6A0440	5.51 (2.500)
20.5 (520)	52	XUSLDSQ6A0520	6.33 (2.870)
23.6 (600)	60	XUSLDSQ6A0600	7.10 (3.220)
28.3 (720)	72	XUSLDSQ6A0720	8.29 (3.760)
29.9 (760)	76	XUSLDSQ6A0760	8.69 (3.940)
34.6 (880)	88	XUSLDSQ6A0880	9.85 (4.470)
36.2 (920)	92	XUSLDSQ6A0920	10.25 (4.650)
37.8 (960)	96	XUSLDSQ6A0960	10.65 (4.830)
40.9 (1040)	104	XUSLDSQ6A1040	11.44 (5.190)
44.1 (1120)	112	XUSLDSQ6A1120	12.21 (5.540)
47.2 (1200)	120	XUSLDSQ6A1200	13.01 (5.900)



XUSLDSY5A.....

#### Transmitter-receiver pairs for hand protection (1)

Detection capacity 1.2 ft (30 mm). Sensing distance depending on XUSLDM light curtain used

■ Segments for cascadable Universal light curtains (2)

Protected height in (mm)	Number of light beams	Reference (3)	Weight lb. (kg)
12.6 (320)	16	XUSLDSY5A0320	4.34 (1.970)
14.2 (360)	18	XUSLDSY5A0360	4.74 (2.150)
17.3 (440)	22	XUSLDSY5A0440	5.51 (2.500)
20.5 (520)	26	XUSLDSY5A0520	6.33 (2.870)
23.6 (600)	30	XUSLDSY5A0600	7.10 (3.220)
26.8 (680)	34	XUSLDSY5A0680	7.89 (3.580)
29.9 (760)	38	XUSLDSY5A0760	8.69 (3.940)
34.6 (880)	44	XUSLDSY5A0880	9.85 (4.470)
36.2 (920)	46	XUSLDSY5A0920	10.25 (4.650)
40.9 (1040)	52	XUSLDSY5A1040	11.44 (5.190)
47.2 (1200)	60	XUSLDSY5A1200	13.01 (5.900)
53.5 (1360)	68	XUSLDSY5A1360	14.59 (6.620)
55.1 (1400)	70	XUSLDSY5A1400	14.99 (6.800)
59.8 (1520)	76	XUSLDSY5A1520	16.16 (7.330)
61.4 (1560)	78	XUSLDSY5A1560	16.53 (7.500)
64.6 (1640)	82	XUSLDSY5A1640	17.35 (7.870)
67.7 (1720)	86	XUSLDSY5A1720	18.14 (8.230)
70.9 (1800)	88	XUSLDSY5A1800	18.94 (8.590)
75.6 (1920)	96	XUSLDSY5A1920	20.11 (9.120)
83.5 (2120)	106	XUSLDSY5A2120	22.09 (10.020)

(1) Supplied with 2 sets of 2 brackets and hardware.  
Jumper cables to be ordered separately, see 9.

(2) The segments are to be connected to the M12 4-pin connector on top of the XUSLDM light curtains.

(3) To order a receiver only, add the letter **R** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUSLDSY5A0320 becomes XUSLDSY5A0320R for the receiver only.

To order a transmitter only, add the letter **T** to the end of the reference for the corresponding transmitter-receiver pair.

Example: reference XUSLDSY5A0320 becomes XUSLDSY5A0320T for the transmitter only.

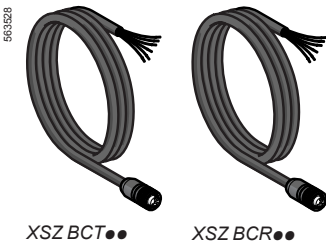
# Safety detection solutions

## Safety light curtains, type 4

### Light curtains Optimum XUSLB and Universal XUSLDM/LDS with solid-state output



XUSLPDM



XSZ BCT●●

XSZ BCR●●

#### Separate components

Power supplies, 90° mirror adaptors, protective covers, anti-vibration kit, mounting bases, laser alignment tool

See pages 1 to 8 of .

#### Accessories

Description	For use with	Length ft (m)	Reference	Weight lb. (kg)
<b>Programming and Diagnostic Module (PDM)</b>	Light curtains XUSLB/LDM	–	XUSLPDM	0.62 (0.280)
<b>Holder mount</b>	Programming and diagnostic module XUSLPDM	–	XUSLZPDM	0.09 (0.040)
<b>Pre-wired connectors for light curtains XUSLB/XUSLDM</b>	Transmitter type	16.4 (5)	<b>XSZBCT05</b>	0.86 (0.390)
		32.8 (10)	<b>XSZBCT10</b>	1.52 (0.690)
		49.2 (15)	<b>XSZBCT15</b>	2.27 (1.030)
		98.4 (30)	<b>XSZBCT30</b>	4.25 (1.930)
	Receiver type	16.4 (5)	<b>XSZBCR05</b>	0.99 (0.450)
		32.8 (10)	<b>XSZBCR10</b>	1.72 (0.780)
		49.2 (15)	<b>XSZBCR15</b>	2.43 (1.100)
		98.4 (30)	<b>XSZBCR30</b>	5.03 (2.280)
<b>Jumper cables for segments XUSLDS</b> M12 male/female, 4-pin, straight	Transmitter type	1 (0.3)	<b>XSZDCT003</b>	0.11 (0.050)
		1.6 (0.5)	<b>XSZDCT005</b>	0.15 (0.070)
		3.3 (1)	<b>XSZDCT010</b>	0.24 (0.110)
		6.6 (2)	<b>XSZDCT020</b>	0.46 (0.210)
		9.9 (3)	<b>XSZDCT030</b>	0.66 (0.300)
		16.4 (5)	<b>XSZDCT050</b>	1.08 (0.490)
		32.8 (10)	<b>XSZDCT100</b>	2.09 (0.950)
	Receiver type	1 (0.3)	<b>XSZDCR003</b>	0.11 (0.050)
		1.6 (0.5)	<b>XSZDCR005</b>	0.15 (0.070)
		3.3 (1)	<b>XSZDCR010</b>	0.24 (0.110)
		6.6 (2)	<b>XSZDCR020</b>	0.46 (0.210)
		9.9 (3)	<b>XSZDCR030</b>	0.66 (0.300)
		16.4 (5)	<b>XSZDCR050</b>	1.08 (0.490)
		32.8 (10)	<b>XSZDCR100</b>	2.12 (0.960)
<b>Jumpers for replacement of light curtains XUSLT by XUSLB or XUSLDM</b>	Transmitter type Male/Female 5 pins	1 (0.3)	<b>XSZTBMCT003</b>	0.13 (0.060)
	Receiver type Male/Female 8 pins	1 (0.3)	<b>XSZTBMCR003</b>	0.13 (0.060)
<b>Description</b>	<b>For use with</b>		<b>Unit reference</b>	<b>Weight lb. (kg)</b>
<b>Replacement caps for M12 connector (Sold in lots of 10)</b>	Light curtains XUSLDM and segments XUSLDS		<b>XUSLZ600</b>	0.002 (0.001)
<b>Replacement caps for M8 connector (programming and diagnostic module XUSLPDM connection to light curtains) (Sold in lots of 10)</b>	Light curtains XUSLB/LDM and segments XUSLDS		<b>XUSLZ610</b>	0.02 (0.010)
<b>mounting kit (2 brackets)</b>	Light curtains XUSLB/LDM and segments XUSLDS		<b>XUSLZ228</b>	0.22 (0.100)
<b>Sliding nuts (4 nuts) for rear or side mounting with XUSLZ228</b>	Light curtains XUSLB/LDM		<b>XUSLZ330</b>	0.09 (0.040)
<b>Arc suppressor (pair)</b>	All types of light curtain		<b>XUSLZ500</b>	0.04 (0.020)
<b>IP 67 protection tube (see page 10)</b>				–
<b>User guide on CD-ROM</b>	All types of light curtain		<b>XUSLZ450</b>	0.02 (0.010)
<b>Connection module for sensors and Muting indicator light (see page 18)</b>	Light curtains XUSLDM		<b>XPPLCM1</b>	0.42 (0.190)

IP 67 protection tubes for light curtains XUSLB/XUSLDM and segments XUSLDS		XUSLZD7●●●●	
<b>Environment characteristics</b>			
Air temperature	For operation	°F (°C)	32...+ 104 (0...+ 40)
	For storage	°F (°C)	- 13...+ 158 (- 25...+ 70)
Degree of protection		IP 67 conforming to IEC 60529	
Material		Acrylic	
Sensing distance (Sn) reduction coefficient		0.90	

<b>Environmental chemicals</b>			
Chemical resistance	Aliphatic hydrocarbons		Resistant
	Alkalis		
	Aqueous solutions		
	Detergents and cleaners		
	Inorganic diluted acids		
	Chlorinated or aromatic hydrocarbons		
	Esters		
	Ketones		
Environmental resistance	Adverse weather, sunlight (UV)		Resistant
	Humidity		
	Immersion in water		

### References of IP 67 protection tubes

109048



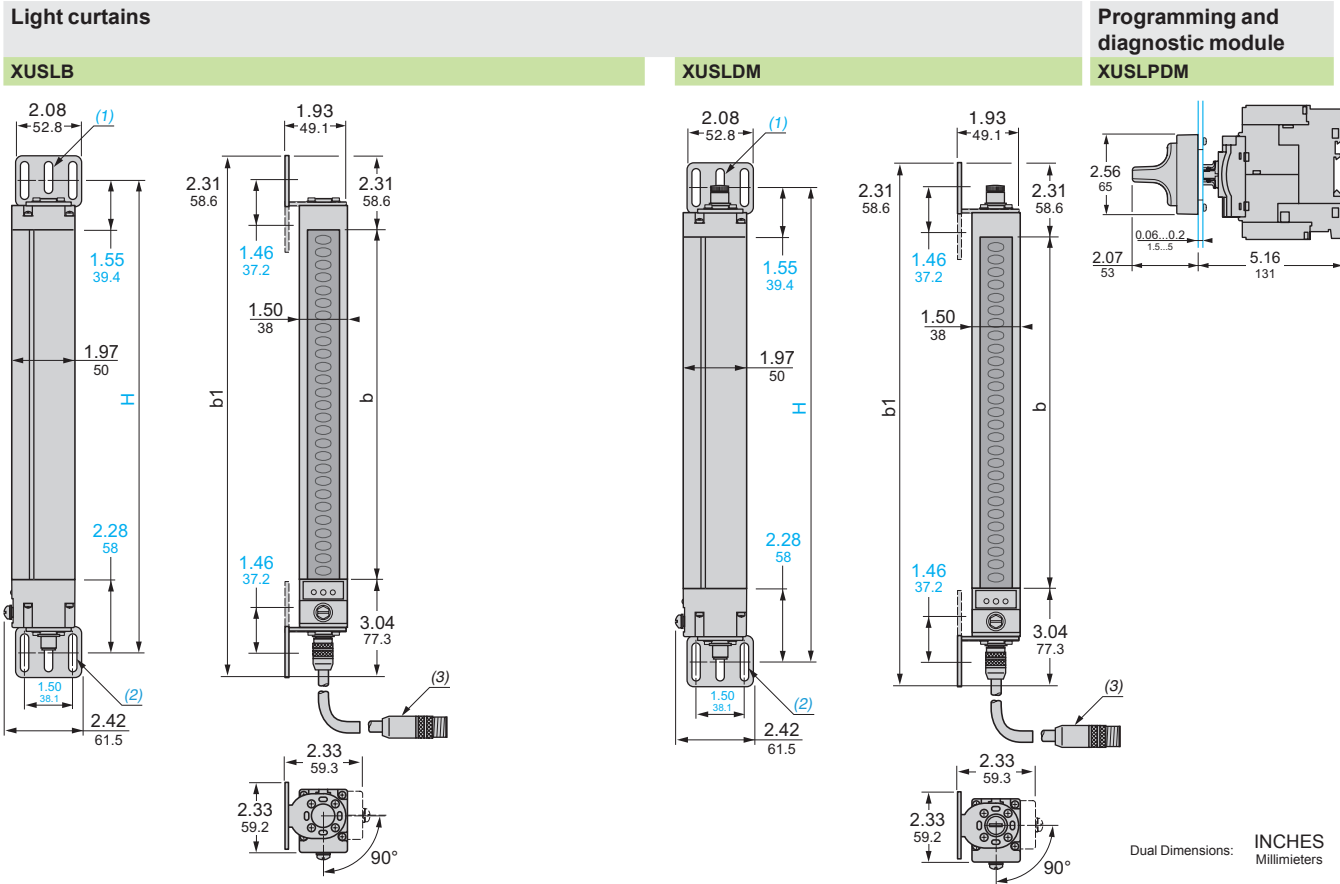
XUSLZD7●●●●

Description	For use with	Height in (mm)	Reference	Weight lb. (kg)
IP 67 protection tubes for XUSLB/LDM transmitter-receiver pair and segments XUSLDS●●●● (0.90 Sn) (1) (Sold in lots of 2)	XUSL●●6A0280	11.2 (284.4)	XUSLZD70280	5.84 (2.650)
	XUSL●●●A0320	12.8 (324.8)	XUSLZD70320	6.19 (2.810)
	XUSL●●●A0360	14.4 (364.5)	XUSLZD70360	6.53 (2.960)
	XUSL●●●A0440	17.5 (443.9)	XUSLZD70440	7.21 (3.270)
	XUSL●●●A0520	20.6 (523.4)	XUSLZD70520	7.89 (3.580)
	XUSL●●●A0600	23.8 (604.1)	XUSLZD70600	8.58 (3.890)
	XUSL●●5A0680	26.9 (683.6)	XUSLZD70680	9.24 (4.190)
	XUSL●●6A0720	28.5 (724)	XUSLZD70720	9.59 (4.350)
	XUSL●●●A0760	30 (763)	XUSLZD70760	9.92 (4.500)
	XUSL●●●A0880	34.8 (882.8)	XUSLZD70880	10.93 (4.960)
	XUSL●●●A0920	36.3 (922.5)	XUSLZD70920	11.28 (5.120)
	XUSL●●6A0960	37.9 (963.6)	XUSLZD70960	11.62 (5.270)
	XUSL●●●A1040	41.1 (1042.9)	XUSLZD71040	12.30 (5.580)
	XUSL●●6A1120	44.2 (1122.3)	XUSLZD71120	12.99 (5.890)
	XUSL●●●A1200	47.4 (1203.8)	XUSLZD71200	13.67 (6.200)
	XUSL●●●A1360	53.6 (1362)	XUSLZD71360	15.01 (6.810)
	XUSL●●5A1400	55.2 (1401.7)	XUSLZD71400	15.37 (6.970)
	XUSL●●5A1520	59.9 (1521.5)	XUSLZD71520	16.38 (7.430)
	XUSL●●5A1560	61.5 (1563.3)	XUSLZD71560	16.71 (7.580)
	XUSL●●5A1640	64.6 (1641.3)	XUSLZD71640	17.89 (7.890)
XUSL●●5A1720	67.7 (1720.8)	XUSLZD71720	18.08 (8.200)	
XUSL●●5A1800	71 (1802.9)	XUSLZD71800	18.76 (8.510)	
XUSL●●5A1920	75.7 (1922.8)	XUSLZD71920	19.78 (8.970)	
XUSL●●5A2120	83.5 (2120.7)	XUSLZD72120	21.47 (9.740)	

(1) Sensing distance reduction coefficient to be taken into account for each pair of IP 67 protection tubes used.

# Safety detection solutions Preventa™

Safety light curtains, type 4  
Light curtains Optimum XUSLB and  
Universal XUSLDM with solid-state output



Dual Dimensions: INCHES  
Millimeters

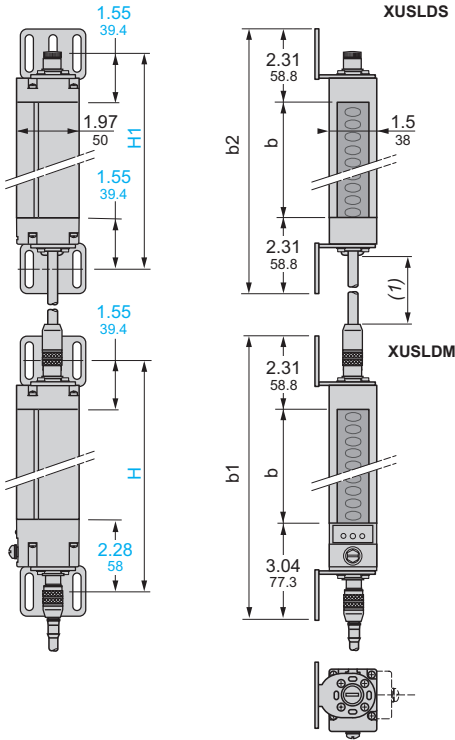
XUS	b	b1	H	Protected height
LB●●●0280	11.2 (284.4)	16.6 (420.4)	15 (381.7)	11 (280)
LB●●●0320	12.8 (324.8)	18.1 (460.8)	16.6 (422.1)	12.6 (320)
LB●●●0360	14.4 (364.5)	19.7 (500.5)	18.2 (461.8)	14.2 (360)
LB●●●0440	17.5 (443.9)	22.8 (579.9)	21.3 (541.2)	17.3 (440)
LB●●●0520	20.6 (523.4)	26 (659.4)	24.4 (620.7)	20.5 (520)
LB●●●0600	23.8 (604.1)	29.1 (740.1)	27.6 (701.4)	23.6 (600)
LB●●●0680	26.9 (683.6)	32.3 (819.6)	30.7 (780.9)	26.8 (680)
LB●●●0720	28.5 (724)	33.9 (860)	32.3 (821.3)	28.3 (720)
LB●●●0760	30 (763)	35.4 (899)	33.9 (860.3)	29.9 (760)
LB●●●0880	34.8 (882.8)	40.1 (1018.8)	38.6 (980.1)	34.6 (880)
LB●●●0920	36.3 (922.5)	41.7 (1058.5)	40.1 (1019.8)	36.2 (920)
LB●●●0960	37.9 (963.6)	43.3 (1099.6)	41.8 (1060.9)	37.8 (960)
LB●●●1040	41.1 (1042.9)	46.4 (1178.9)	44.9 (1140.2)	40.9 (1040)
LB●●●1120	44.2 (1122.3)	49.5 (1258.3)	48 (1219.6)	44.1 (1120)
LB●●●1200	47.4 (1203.8)	52.7 (1339.8)	51.2 (1301.1)	47.2 (1200)
LB●●●1360	53.6 (1362)	59 (1498)	57.5 (1459.3)	53.5 (1360)
LB●●●1400	55.2 (1401.7)	60.5 (1537.7)	59 (1499)	55.1 (1400)
LB●●●1520	59.9 (1521.5)	65.3 (1657.5)	63.7 (1618.8)	59.8 (1520)
LB●●●1560	61.5 (1563.3)	66.9 (1699.3)	65.4 (1660.6)	61.4 (1560)
LB●●●1640	64.6 (1641.3)	70 (1777.3)	68.4 (1738.6)	64.6 (1640)
LB●●●1720	67.7 (1720.8)	73.1 (1856.8)	71.6 (1818.1)	67.7 (1720)
LB●●●1800	71 (1802.9)	76.3 (1938.9)	74.8 (1900.2)	70.9 (1800)
LB●●●1920	75.7 (1922.8)	81.1 (2058.8)	79.5 (2020.1)	75.6 (1920)
LB●●●2120	83.5 (2120.7)	88.8 (2256.7)	87.3 (2217.3)	83.5 (2120)

XUS	b	b1	H	Protected height
LDM●●●0280	11.2 (284.4)	16.6 (420.4)	15 (381.7)	11 (280)
LDM●●●0320	12.8 (324.8)	18.1 (460.8)	16.6 (422.1)	12.6 (320)
LDM●●●0360	14.4 (364.5)	19.7 (500.5)	18.2 (461.8)	14.2 (360)
LDM●●●0440	17.5 (443.9)	22.8 (579.9)	21.3 (541.2)	17.3 (440)
LDM●●●0520	20.6 (523.4)	26 (659.4)	24.4 (620.7)	20.5 (520)
LDM●●●0600	23.8 (604.1)	29.1 (740.1)	27.6 (701.4)	23.6 (600)
LDM●●●0680	26.9 (683.6)	32.3 (819.6)	30.7 (780.9)	26.8 (680)
LDM●●●0720	28.5 (724)	33.9 (860)	32.3 (821.3)	28.3 (720)
LDM●●●0760	30 (763)	35.4 (899)	33.9 (860.3)	29.9 (760)
LDM●●●0880	34.8 (882.8)	40.1 (1018.8)	38.6 (980.1)	34.6 (880)
LDM●●●0920	36.3 (922.5)	41.7 (1058.5)	40.1 (1019.8)	36.2 (920)
LDM●●●0960	37.9 (963.6)	43.3 (1099.6)	41.8 (1060.9)	37.8 (960)
LDM●●●1040	41.1 (1042.9)	46.4 (1178.9)	44.9 (1140.2)	40.9 (1040)
LDM●●●1120	44.2 (1122.3)	49.5 (1258.3)	48 (1219.6)	44.1 (1120)
LDM●●●1200	47.4 (1203.8)	52.7 (1339.8)	51.2 (1301.1)	47.2 (1200)
LDM●●●1360	53.6 (1362)	59 (1498)	57.5 (1459.3)	53.5 (1360)
LDM●●●1400	55.2 (1401.7)	60.5 (1537.7)	59 (1499)	55.1 (1400)
LDM●●●1520	59.9 (1521.5)	65.3 (1657.5)	63.7 (1618.8)	59.8 (1520)
LDM●●●1560	61.5 (1563.3)	66.9 (1699.3)	65.4 (1660.6)	61.4 (1560)
LDM●●●1640	64.6 (1641.3)	70 (1777.3)	68.4 (1738.6)	64.6 (1640)
LDM●●●1720	67.7 (1720.8)	73.1 (1856.8)	71.6 (1818.1)	67.7 (1720)
LDM●●●1800	71 (1802.9)	76.3 (1938.9)	74.8 (1900.2)	70.9 (1800)
LDM●●●1920	75.7 (1922.8)	81.1 (2058.8)	79.5 (2020.1)	75.6 (1920)
LDM●●●2120	83.5 (2120.7)	88.8 (2256.7)	87.3 (2217.3)	83.5 (2120)

(1) 2 elongated holes 0.73 x 0.27 in (18.5 x 6.8 mm).  
 (2) 4 elongated holes 0.91 x 0.27 in (23.2 x 6.8 mm).  
 (3) M12 male connector on 10.6 in. (0.27 m) pigtail.

**Cascadable segments**

**XUSLDS**

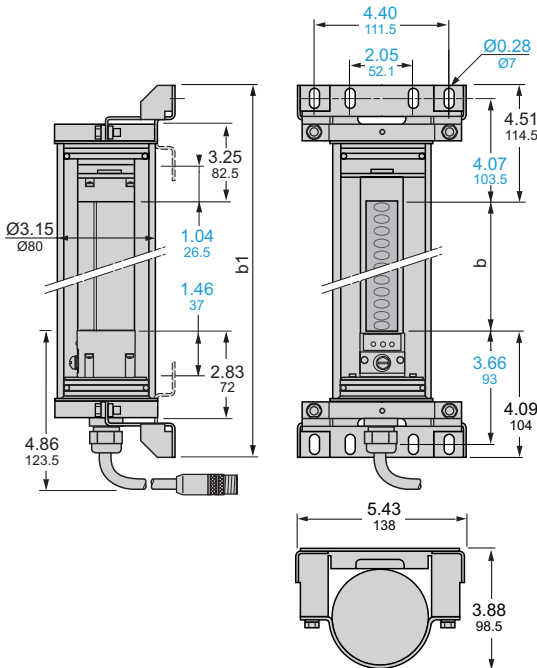


XUS	b	b1	b2	H	H1	Protected height
LDS●●●0280	11.2 (284.4)	16.6 (420.4)	15.8 (401.5)	15 (381.7)	14.3 (363.1)	11 (280)
LDS●●●0320	12.8 (324.8)	18.1 (460.8)	17.4 (442.3)	16.6 (422.1)	15.9 (403.5)	12.6 (320)
LDS●●●0360	14.4 (364.5)	19.7 (500.5)	19 (482)	18.2 (461.8)	17.4 (443.2)	14.2 (360)
LDS●●●0440	17.5 (443.9)	22.8 (579.9)	22.1 (561.4)	21.3 (541.2)	20.6 (522.6)	17.3 (440)
LDS●●●0520	20.6 (523.4)	26 (659.4)	25.2 (640.9)	24.4 (620.7)	23.7 (602.1)	20.5 (520)
LDS●●●0600	23.8 (604.1)	29.1 (740.1)	28.4 (721.6)	27.6 (701.4)	26.9 (682.8)	23.6 (600)
LDS●●●0680	26.9 (683.6)	32.3 (819.6)	31.5 (801.1)	30.7 (780.9)	30 (762.3)	26.8 (680)
LDS●●●0720	28.5 (724)	33.9 (860)	33.1 (841.5)	32.3 (821.3)	31.6 (802.7)	28.3 (720)
LDS●●●0760	30 (763)	35.4 (899)	34.7 (880.5)	33.9 (860.3)	33.1 (841.7)	29.9 (760)
LDS●●●0880	34.8 (882.8)	40.1 (1018.8)	39.4 (1000.3)	38.6 (980.1)	37.9 (961.5)	34.6 (880)
LDS●●●0920	36.3 (922.5)	41.7 (1058.5)	40.9 (1040)	40.1 (1019.8)	39.4 (1001.2)	36.2 (920)
LDS●●●0960	37.9 (963.6)	43.3 (1099.6)	42.6 (1081.1)	41.8 (1060.9)	41 (1042.3)	37.8 (960)
LDS●●●1040	41.1 (1042.9)	46.4 (1178.9)	45.7 (1160.4)	44.9 (1140.2)	44.2 (1121.6)	40.9 (1040)
LDS●●●1120	44.2 (1122.3)	49.5 (1258.3)	48.8 (1239.8)	48 (1219.6)	47.3 (1201)	44.1 (1120)
LDS●●●1200	47.4 (1203.8)	52.7 (1339.8)	52 (1321.3)	51.2 (1301.1)	50.5 (1282.5)	47.2 (1200)
LDS●●●1360	53.6 (1362)	59 (1498)	58.2 (1479.5)	57.5 (1459.3)	56.7 (1440.7)	53.5 (1360)
LDS●●●1400	55.2 (1401.7)	60.5 (1537.7)	59.8 (1519.2)	59 (1499)	58.3 (1480.4)	55.1 (1400)
LDS●●●1520	59.9 (1521.5)	65.3 (1657.5)	64.5 (1639)	63.7 (1618.8)	63 (1600.2)	59.8 (1520)
LDS●●●1560	61.5 (1563.3)	66.9 (1699.3)	66.2 (1680.8)	65.4 (1660.6)	66.1 (1679.2)	61.4 (1560)
LDS●●●1640	64.6 (1641.3)	70 (1777.3)	69.2 (1758.8)	68.4 (1738.6)	67.7 (1720)	64.6 (1640)
LDS●●●1720	67.7 (1720.8)	73.1 (1856.8)	72.4 (1838.3)	71.6 (1818.1)	70.8 (1799.5)	67.7 (1720)
LDS●●●1800	71 (1802.9)	76.3 (1938.9)	75.6 (1920.4)	74.8 (1900.2)	74.1 (1881.6)	70.9 (1800)
LDS●●●1920	75.7 (1922.8)	81.1 (2058.8)	80.3 (2040.3)	79.5 (2020.1)	78.8 (2001.5)	75.6 (1920)
LDS●●●2120	83.5 (2120.7)	88.8 (2256.7)	88.1 (2237.5)	87.3 (2217.3)	86.6 (2198.7)	83.5 (2120)

(1) Flexible 4.33 in (0.11 m) long cable.

**Protection tube for light curtains XUSLB/XUSLDM and segments XUSLDS**

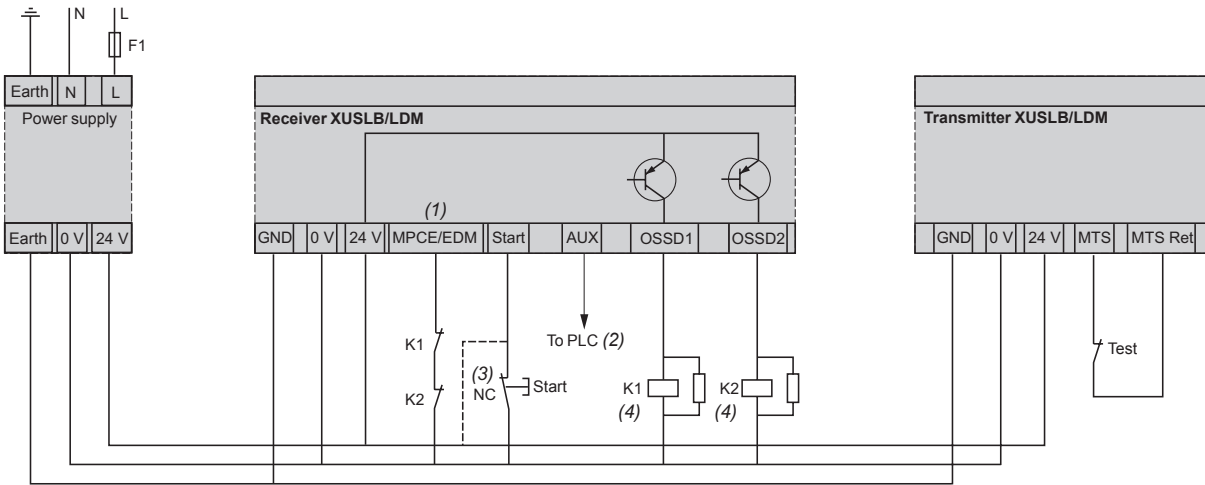
**XUSLZD7●●●●**



XUS	b	b1	XUS	b	b1
LZD70280	11.2 (284.4)	19.8 (502.8)	LZD71040	41.1 (1042.9)	49.7 (1261.3)
LZD70320	12.8 (324.8)	21.4 (543.2)	LZD71120	44.2 (1122.3)	52.8 (1340.7)
LZD70360	14.4 (364.5)	22.9 (582.9)	LZD71200	47.4 (1203.8)	56 (1422.2)
LZD70440	17.5 (443.9)	26.1 (662.3)	LZD71360	53.6 (1362)	62.2 (1580.4)
LZD70520	20.6 (523.4)	29.2 (741.8)	LZD71400	55.2 (1401.7)	63.8 (1620.1)
LZD70600	23.8 (604.1)	32.4 (822.5)	LZD71520	59.9 (1521.5)	68.5 (1739.9)
LZD70680	26.9 (683.6)	35.5 (902)	LZD71560	61.5 (1563.3)	70.1 (1781.7)
LZD70720	28.5 (724)	37.1 (942.4)	LZD71640	64.6 (1641.3)	73.2 (1859.2)
LZD70760	30 (763)	38.6 (981.4)	LZD71720	67.7 (1720.8)	76.3 (1939.2)
LZD70880	34.8 (882.8)	43.4 (1101.2)	LZD71800	71 (1802.9)	79.6 (2021.2)
LZD70920	36.3 (922.5)	44.9 (1140.9)	LZD71920	75.7 (1922.8)	84.3 (2141.2)
LZD70960	37.9 (963.6)	46.5 (1182)	LZD72120	83.5 (2120.7)	92.1 (2338.4)

Dual Dimensions: INCHES  
Millimeters

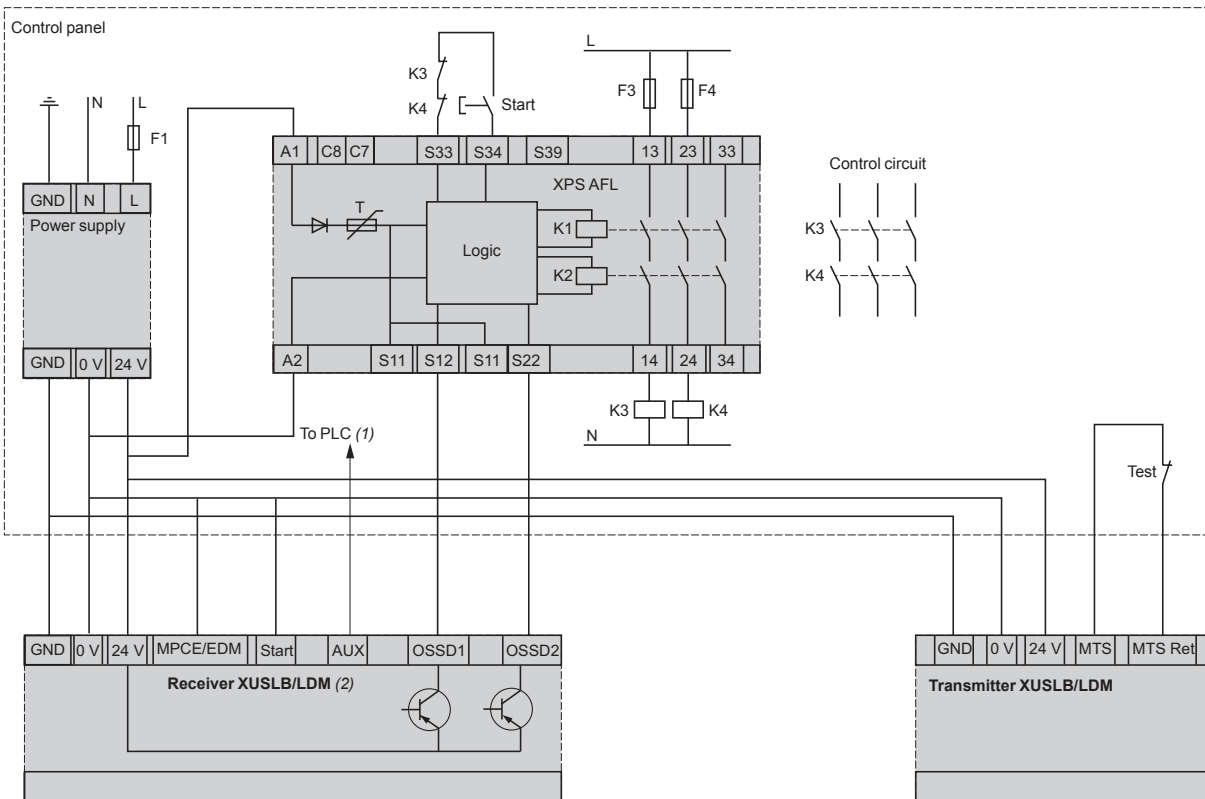
#### Direct connection with XUSLB/LDM●●●



- (1) For testing prior to installation, the user can select MPCE/EDM OFF (default factory setting). In this case, the MPCE/EDM line must be connected to the 0 V line of the system.
- (2) The auxiliary output connects to a PLC (optional).
- (3) If remote start is not used, connect the start line to the 0 V line.
- (4) The K1 and K2 coils must be protected using the arc suppressors included in the documentation kit.

**Note:** Relays K1 and K2 must have mechanically linked contacts.

#### Connection via a Preventa™ XPSAFL module



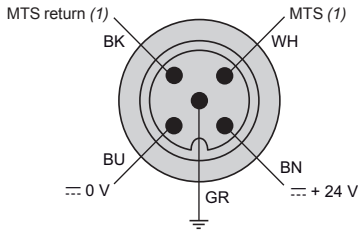
- (1) The auxiliary output connects to a PLC (optional).
- (2) The light curtain must be configured with MPCE/EDM OFF and with automatic start.

**Note:** Relays K1 and K2 must have mechanically linked contacts.



#### Transmitter

##### Transmitter connector



##### Transmitter status indicator

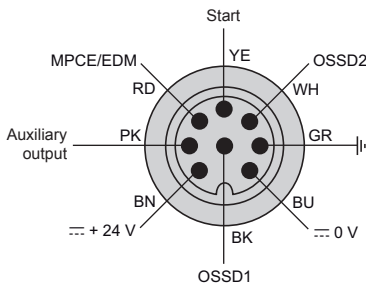


- 1 Yellow LED

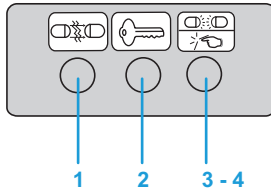
(1) Light curtain test input.

#### Receiver

##### Receiver connector



##### Receiver status indicator

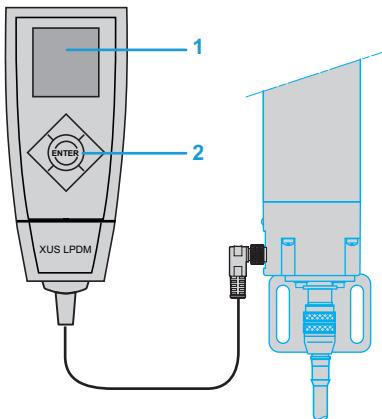


- 1 Blanking: Orange LED
- 2 Interlock or Alarm: Yellow LED
- 3-4 Machine run: Green LED  
Machine stop: Red LED

#### Programming and diagnostic module

##### Description and connection to light curtains XUSLB/LDM

##### XUSLPDM



- 1 Screen
- 2 Navigation button for displaying menus and selecting functions

## Substitution table

Light curtains with closest functionalities

# Safety detection solutions

Safety light curtains, type 4

Light curtains Optimum XUSLB and

Universal XUSLDM with solid-state output

Light curtains Optimum	
Detection capacity 0.55 in. (14 mm).	
Old light curtain	New light curtain
XUSLTQ6A0260, XUSLTQ6B0260	XUSLBQ6A0280
XUSLTQ6A0350, XUSLTQ6B0350	XUSLBQ6A0320, XUSLBQ6A0360
XUSLTQ6A0435, XUSLTQ6B0435	XUSLBQ6A0440
XUSLTQ6A0520, XUSLTQ6B0520	XUSLBQ6A0520
XUSLTQ6A0610, XUSLTQ6B0610	XUSLBQ6A0600
XUSLTQ6A0700, XUSLTQ6B0700	XUSLBQ6A0720
XUSLTQ6A0785, XUSLTQ6B0785	XUSLBQ6A0760
XUSLTQ6A0870, XUSLTQ6B0870	XUSLBQ6A0880, XUSLBQ6A0920
XUSLTQ6A0955, XUSLTQ6B0955	XUSLBQ6A0960
XUSLTQ6A1045, XUSLTQ6B1045	XUSLBQ6A1040
XUSLTQ6A1130, XUSLTQ6B1130	XUSLBQ6A1120
XUSLTQ6A1215, XUSLTQ6B1215	XUSLBQ6A1200
XUSLTQ6A1305, XUSLTQ6B1390, XUSLTQ6A1390, XUSLTQ6B1390	XUSLBQ6A1360
Detection capacity 1.2 ft (30 mm)	
Old light curtain	New light curtain
XUSLTR5A0350, XUSLTR5B0350	XUSLBR5A0320, XUSLBR5A0360, XUSLBR5A0440
XUSLTR5A0520, XUSLTR5B0520	XUSLBR5A0520, XUSLBR5A0600
XUSLTR5A0700, XUSLTR5B0700	XUSLBR5A0680, XUSLBR5A0760
XUSLTR5A0870, XUSLTR5A0870,	XUSLBR5A0880, XUSLBR5A0920
XUSLTR5A1045, XUSLTR5B1045	XUSLBR5A1040
XUSLTR5A1215, XUSLTR5B1215	XUSLBR5A1200, XUSLBR5A1360
XUSLTR5A1390, XUSLTR5B1390	XUSLBR5A1400, XUSLBR5A1520
XUSLTR5A1570, XUSLTR5B1570	XUSLBR5A1560, XUSLBR5A1640
XUSLTR5A1745, XUSLTR5B1745	XUSLBR5A1720, XUSLBR5A1800
XUSLTR5A1920, XUSLTR5B1920	XUSLBR5A1920
XUSLTR5A2095, XUSLTR5B2095	XUSLBR5A2120

Note: the characteristics of the ranges (optics, connections, dimensions, mounting, functions, etc.) are not exactly the same.

Please refer to the detailed characteristics of the XUSLB●●●●●● and XUSLD●●●●●● ranges and associated accessories when replacing a light curtain from the XUSLT●●●●●● range.

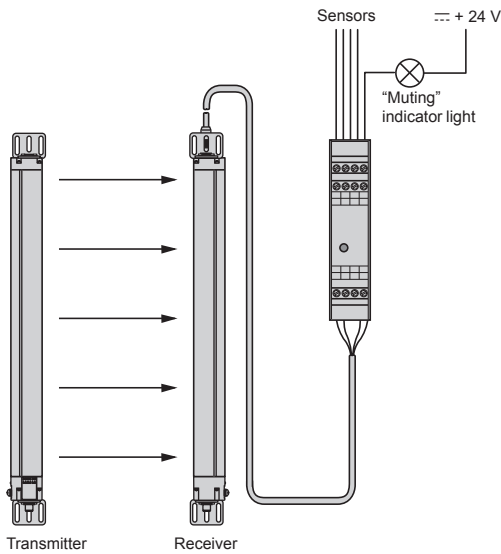
<b>Light curtains Universal</b>	
<b>Detection capacity 1.2 ft (30 mm)</b>	
<i>Old light curtain</i>	<b>New light curtain</b>
XUSLTY5A0350, XUSLTY5B0350	XUSLDMY5A0320, XUSLDMY5A0360, XUSLDMY5A0440
XUSLTY5A0520, XUSLTY5B0520	XUSLDMY5A0520, XUSLDMY5A0600
XUSLTY5A0700, XUSLTY5B0700	XUSLDMY5A0680, XUSLDMY5A0760
XUSLTY5A0870, XUSLTY5B0870	XUSLDMY5A0880, XUSLDMY5A0920
XUSLTY5A1045, XUSLTY5B1045	XUSLDMY5A1040
XUSLTY5A1215, XUSLTY5B1215	XUSLDMY5A1200, XUSLDMY5A1360
XUSLTY5A1390, XUSLTY5B1390	XUSLDMY5A1400, XUSLDMY5A1520
XUSLTY5A1570, XUSLTY5B1570	XUSLDMY5A1560, XUSLDMY5A1640
XUSLTY5A1745, XUSLTY5B1745	XUSLDMY5A1720, XUSLDMY5A1800
XUSLTY5A1920, XUSLTY5B1920	XUSLDMY5A1920
XUSLTY5A2095, XUSLTY5B2095	XUSLDMY5A2120

*Note: Caution, the characteristics of the ranges (optics, connections, dimensions, mounting, functions, etc.) are not exactly the same.  
 Please refer to the detailed characteristics of the XUSLB●●●●●● and XUSLD●●●●●● ranges and associated accessories when replacing a light curtain from the XUSLT●●●●●● range.*

# Safety detection solutions

## Connection module Preventa™ XPSPCM1

### For “muting” function on light curtains type XUSLDM



#### Operating principle

Universal XUSLDM light curtains have an integrated “muting” function that is configurable using the programming and diagnostic module XUSLPDM. This function enables the automatic passage of parts for machining or loaded pallets, without interrupting the transportation movement within the zone protected by the electro-sensitive protection equipment (ESPE) system. In addition to the safety light curtain, a connection module XPSPCM1, which is connected directly to the top of the light curtain receiver, enables the cabling of 2 to 4 “muting” sensors as well as an indicator light. In the event of a sequence error the “muting” indicator light flashes (1 second interval) and turning the Start key switch off and back on restarts the system.

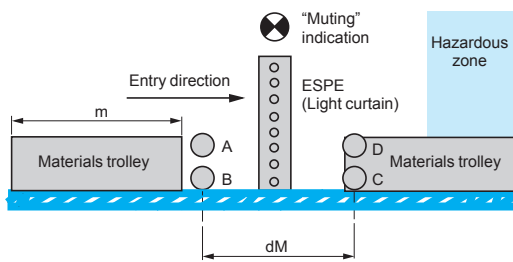
When the system is switched on by the start command and the light curtain protection not interrupted, the main circuit is closed by the safety outputs of the XUSLDM light curtain (solid-state safety outputs). In addition to the safety outputs, the light curtain incorporates signalling LEDs and an auxiliary output (alarm or status signalling) for sending system status information to the PLC. Four LEDs on the light curtain and one on the front face of connection module XPSPCM1 provide information on the safety circuit status.

An interruption of the protection field monitored by the electro-sensitive protection equipment causes instantaneous opening of the safety outputs; the process PLC receives a stop command and the LED display mounted on the front face indicates the change of state of the safety circuits. The “open” state is maintained until the light beams are unobstructed and, if included in the light curtain configuration, the Start key switch operated.

The “muting” function cannot be activated by supplying the “muting” sensors unless the safety outputs have been closed beforehand. To trigger the “muting” function, the “muting” devices must be activated within the configurable time interval (50 milliseconds to 5 seconds in increments of 50 milliseconds). During the activated “muting” phase, materials can be transported through the protection field without deactivating the safety outputs. In the event of intrusion into the hazardous zone, a person cannot activate the “muting” sensors in the same way and the system stops. While the “muting” function is activated, a “muting” status indicator light is controlled by the connection module XPSPCM1. A fault at indicator light level (short-circuit, open circuit) is immediately recognized and deactivates the “muting” function. The indicator light only illuminates when a “muting” signal is generated and indicates the inhibition of the protection function.

#### Conditions to be observed for the “Muting” function

- The “muting” sensors must either be
  - thru-beam: XUK 0ARCTL2 (sensing distance 98.4 ft (30 m)) + XUK 0ARCTL2T
  - polarised reflex: XUK 0ARCTL2 (sensing distance 16.4 ft (5 m)) + reflector XUJ C50 or mechanical limit switches with contacts.
- $dM \leq m$  to obtain continuous validation of the “muting” function.
- Avoid the intrusion of persons during the “muting” phase. This phase is indicated by the indicator light connected to the “muting” indicator output of connection module XPSPCM1.
- A materials trolley must provide the “muting” signal before entering the protection field and cease it once it has cleared all the sensors of the protection field on exiting.



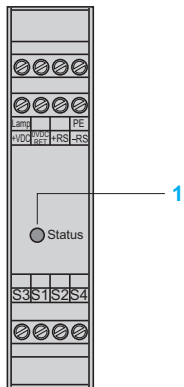
ESPE: electro-sensitive protection equipment (light curtain).  
 A, B, D, C: “muting” sensors.  
 m: trolley length and  $dM$  = distance between A, B and D, C.

# Safety detection solutions

## Connection module Preventa™ XPSLCM1

### For “muting” function on light curtains type XUSLDM

Characteristics			
Connection module type		XPSLCM1	
<b>Certifications</b>		CE, TÜV, CSA, UL	
<b>Product designed for max. use in safety related parts of control systems</b>	Conforming to EN 954-1/ISO 13849-1	Category 4	
<b>Ambient air temperature</b>	For operation	°F (°C)	32...+ 131 (0...+ 55)
	For storage	°F (°C)	- 13...+ 167 (- 25...+ 75)
<b>Degree of protection</b> conforming to IEC 529	Terminals	IP 20	
	Enclosure	IP 20	
<b>Power supply by light curtain XUSLDM</b>	Voltage	<b>V</b>	≐ 24 (- 20...+ 20%)
	Maximum current	<b>mA</b>	30
<b>Maximum consumption</b>		<b>W</b>	0.7
<b>Rated insulation voltage (Ui)</b>		<b>V</b>	500
<b>Rated impulse withstand voltage (Uimp)</b>		<b>kV</b>	1.1
<b>Shock resistance</b>	Conforming to IEC 68-2-6	<b>gn</b>	6 (10...55 Hz)
<b>Vibration resistance</b>	Conforming to IEC 68-2-29	<b>gn</b>	10 (16 ms)
<b>Number of light curtains that can be connected</b>		1 transmitter-receiver pair	
<b>Inputs for “muting” sensors</b>			
- number of inputs to be monitored		2 to 4 per “muting” function	
- supply voltage of sensors		<b>V</b>	≐ 24
- output current of each sensor		<b>mA</b>	< 20
<b>Type of “muting” sensors</b>		Thru-beam, polarized reflex or sensors with volt-free contacts	
<b>Synchronization time of “muting” sensors</b>		<b>ms</b>	50 to 500 (configurable in light curtain XUSLDM in increments of 50 ms)
<b>Maximum “muting” time</b>		<b>min</b>	2 or unlimited
<b>Safety outputs</b>			
- number and type		2 PNP (terminals 1 and 2)	
- breaking capacity of outputs		<b>mA</b>	30 V/100
<b>“Muting” indicator light output</b>		1 NPN	
<b>“Muting” indicator light power</b>		<b>W</b>	1 to 7 max.
<b>“Muting” indicator light type</b>		LED or filament bulb	
<b>Signalling</b>		1 LED	
<b>Connection</b>	Type	Captive screw clamp terminals, non removable	
1-wire connection	Without cable end	Solid or flexible cable: 26-14 AWG (0.14...2.5 mm <sup>2</sup> )	
	With cable end	Without bezel, flexible cable: 24-14 AWG (0.25...2.5 mm <sup>2</sup> )	
	With cable end	With bezel, flexible cable: 24-16 AWG (0.25...1.5 mm <sup>2</sup> )	
2-wire connection	Without cable end	Without bezel, flexible cable: 24-18 AWG (0.25...1.0 mm <sup>2</sup> )	
	Without cable end	Double, with bezel, flexible cable: 22-16 AWG (0.5...1.5 mm <sup>2</sup> )	



## Description

### XPSLCM1

To aid diagnostics, the connection module has 1 LED on the front face 1.

## References

### Connection module

Description	Type of terminal block connection	“Muting” indicator light output	Supply	Reference	Weight oz (kg)
Connection module for “muting” function	Non removable	1 NPN	≡ 24 V	XPSLCM1	6.70 (0.190)

### Spare parts

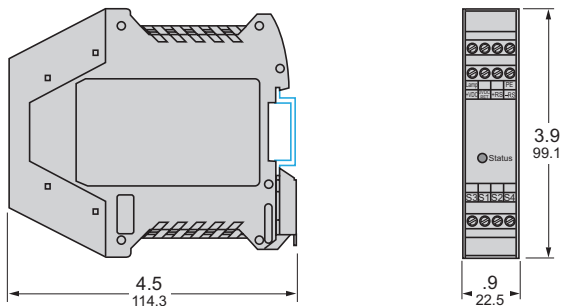
Description	Power W	Reference	Weight oz (kg)
“Muting” indicator light kit (1)	5	XSZCM01	0.42 (0.012)
Replacement bulbs for “muting” indicator light kit comprising one lot of 10 replacement bulbs and 1 removal/insertion tool XBF X13	1 to 7	XSZCM02	0.56 (0.016)

(1) XVB or XVD with steady light LED or filament bulb can also be used.

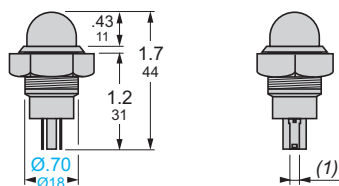
## Dimensions

### XPSLCM1

Mounting on 35 mm rail



### “Muting” indicator light kit XSZ CM01



(1) Faston connector 4.7.

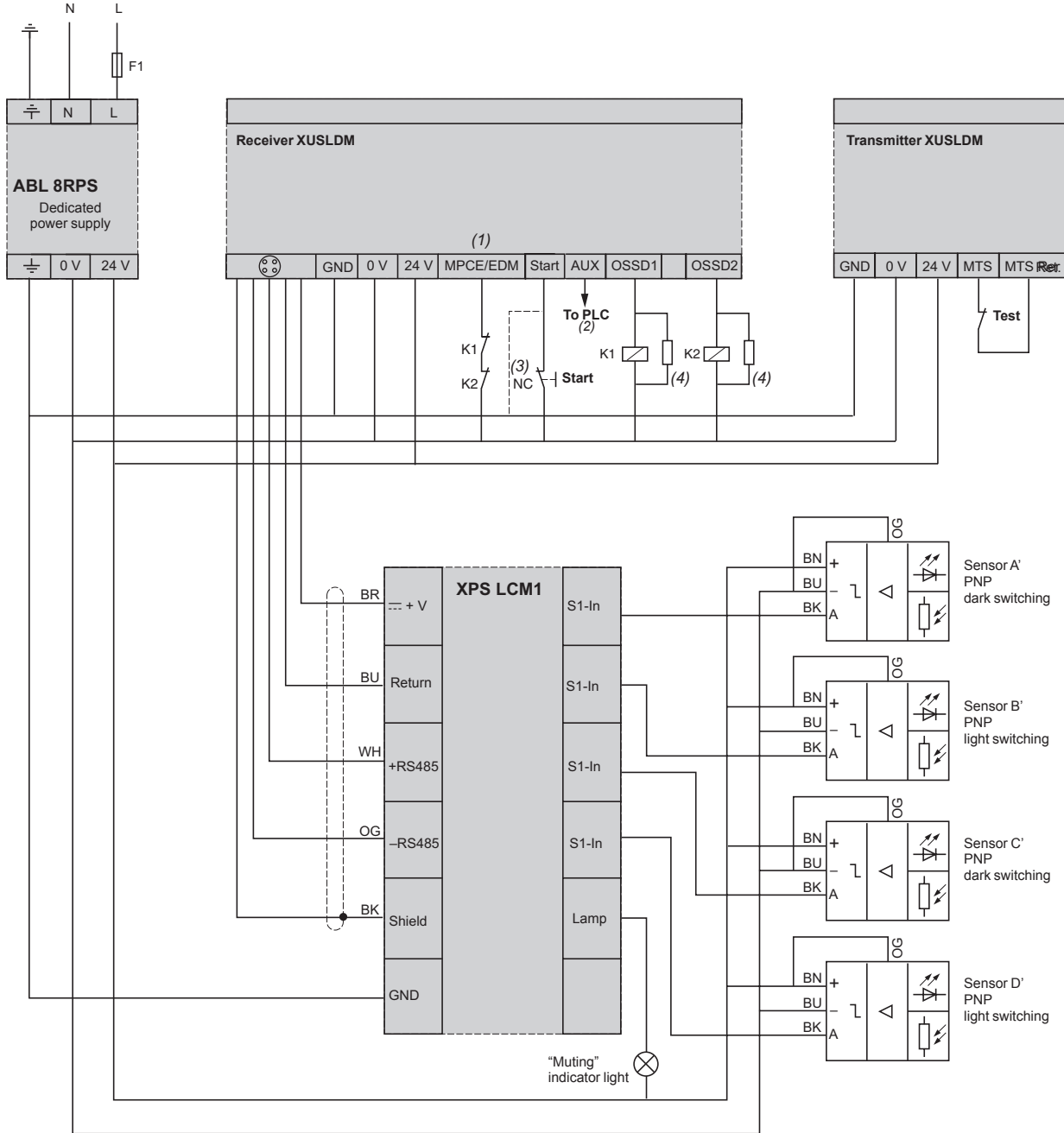
Dual Dimensions: INCHES  
Millimeters

# Safety detection solutions

Connection module Preventa™ XPSLCM1  
For “muting” function on light curtains  
type XUSLDM

## Connection of light curtains XUSLDM with connection module XPSLCM1

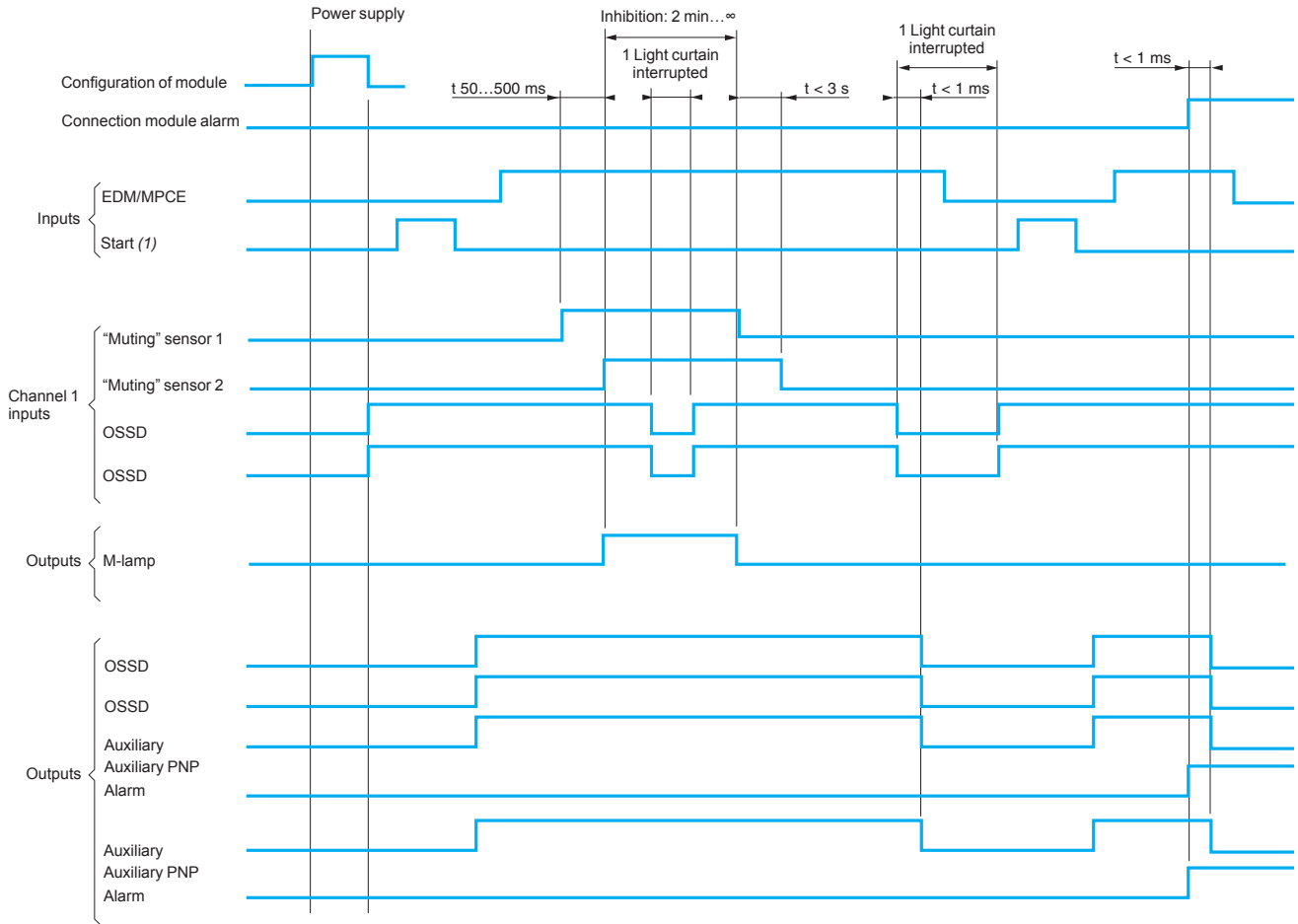
Example: configuration with light curtains XUSLDM



- (1) For testing prior to installation, the user can select MPCE/EDM OFF (default factory setting). In this case, the MPCE/EDM line must be connected to the 0 V line of the system.
- (2) The auxiliary output connects to a PLC (optional).
- (3) If remote start is not used, connect the start line to the 0 V line.
- (4) The K1 and K2 coils must be protected using the arc suppressors included in the documentation kit.

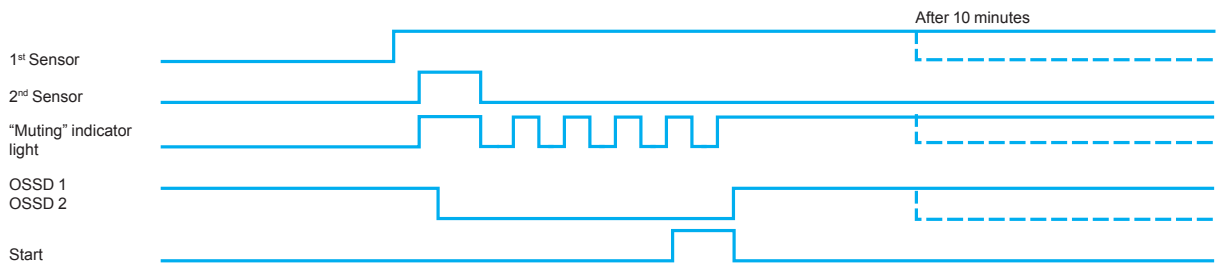
**Functional diagram of light curtain XUSLDM with connection module XPSLCM1**

“Start/restart interlock” mode with 2 sensors



(1) Press Start button.

**Override function**

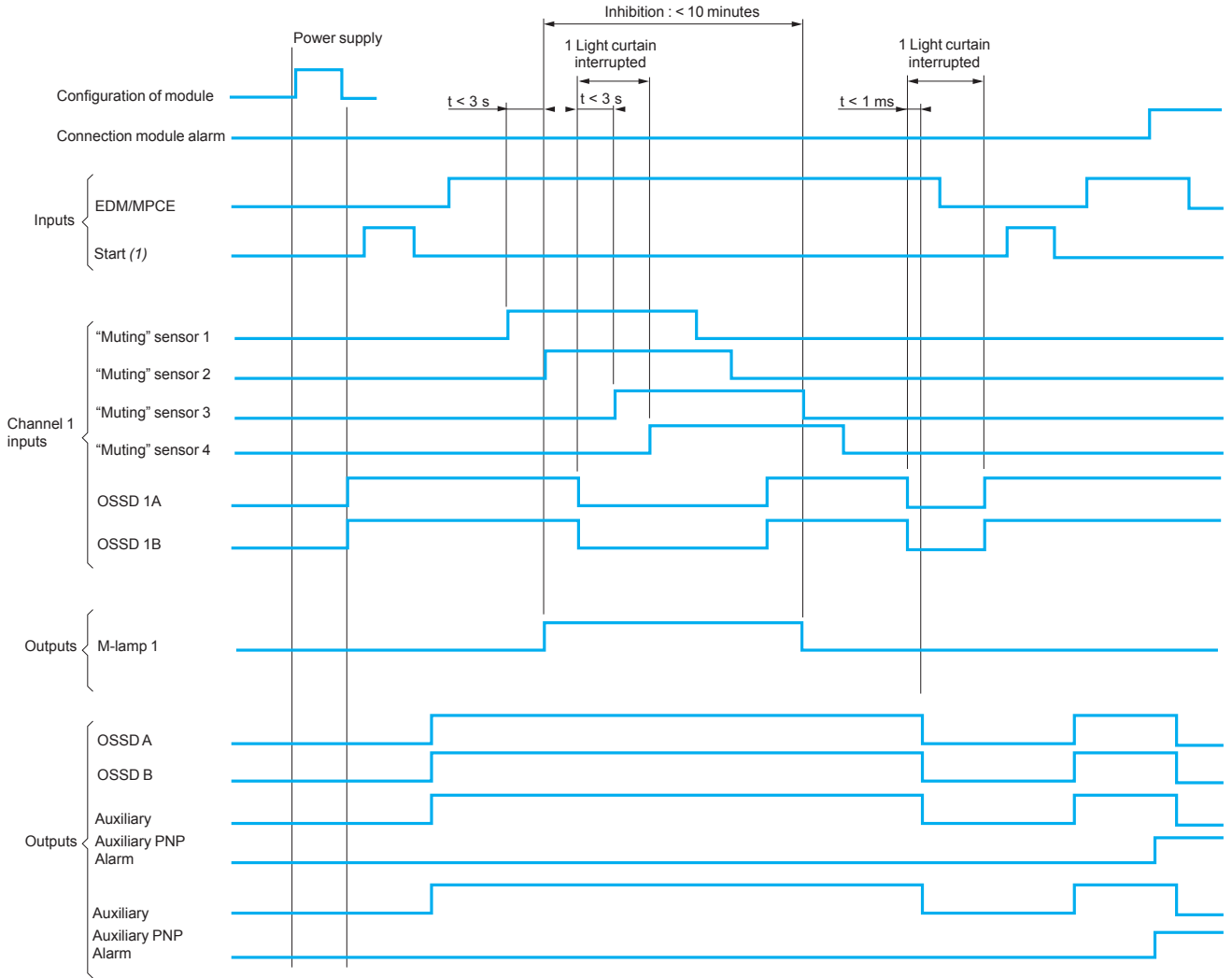


Key 0 1



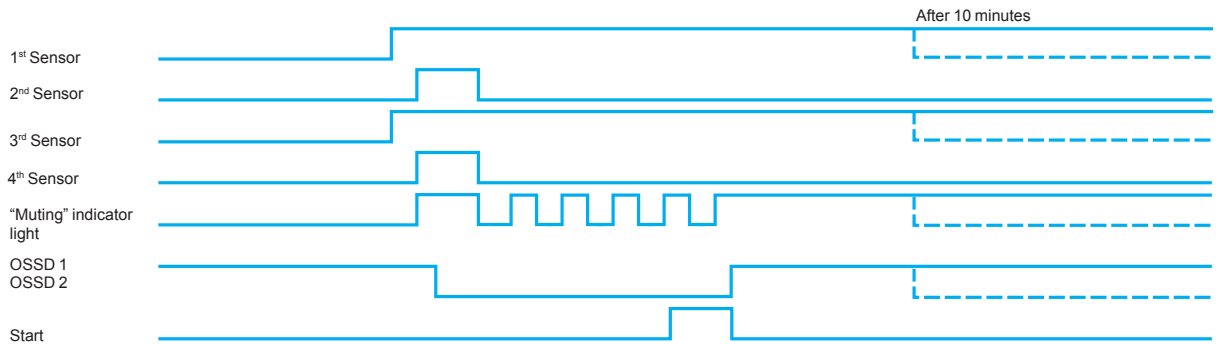
**Functional diagram of light curtain XUSLDM with connection module XPSLCM1**

“Start/restart interlock” mode with 4 sensors



(1) Press Start button.

**Override function**



Key 0 1

# Safety detection solutions Preventa™

Accessories for safety light curtains types 2 and 4

## 90° mirror adaptor for light curtains

Glass mirror (0.88 Sn) (1)

Description	For use with light curtains			Height (2) in (mm)	Reference	Weight lb (kg)
	XUSLB/LDM	XUSLP	XUSLN			
90° mirror adaptor with rotatable mounting	-	XUSLPZ1A●	-	5.5 (140)	XUSZM0102	2.3 (1.040)
	-	-	-	7.5 (191)	XUSZM0152	2.9 (1.300)
	XUSLB/LDM0280	-	XUSLN●●●0150	13.5 (343)	XUSZM0305	4.2 (1.900)
	XUSLB/LDM0320	-	XUSLN●●●0300	19.5 (495)	XUSZM0457	5.5 (2.500)
	XUSLB/LDM0360	-	-	-	-	-
	XUSLB/LDM0440	-	XUSLN●●●0450	21.5 (546)	XUSZM0508	6.2 (2.800)
	XUSLB/LDM0520	XUSLP●2A500●	-	25.5 (648)	XUSZM0610	7.1 (3.200)
	XUSLB/LDM0600/0680	XUSLP●2A0600●	XUSLN●●●0600	29.5 (749)	XUSZM0711	8.2 (3.700)
	XUSLB/LDM0720	-	-	31.5 (800)	XUSZM0762	8.4 (3.800)
	XUSLB/LDM0760	-	XUSLN●●●0750	33.5 (851)	XUSZM0813	8.8 (4.000)
	XUSLB/LDM0880	XUSLPZ3A0400●	-	37.5 (953)	XUSZM0914	9.9 (4.500)
	XUSLB/LDM0920/0960	-	XUSLN●●●0900	41.5 (1054)	XUSZM1016	11 (5.000)
	XUSLB/LDM1040	XUSLPZ3A0500●	-	43.5 (1105)	XUSZM1067	11.5 (5.200)
	XUSLB/LDM1120	XUSLPZ4A0300●	XUSLN●●●1050	49.5 (1257)	XUSZM1219	13 (5.900)
	XUSLB/LDM1200	XUSLPZ5A0300●	XUSLN●●●1200	53.5 (1359)	XUSZM1321	13.9 (6.300)
	XUSLB/LDM1360	-	XUSLN●●●1350	55.5 (1410)	XUSZM1372	14.3 (6.500)
	XUSLB/LDM1400	-	-	57.5 (1461)	XUSZM1422	14.8 (6.700)
	XUSLB/LDM1520	-	XUSLN●●●1500	61.5 (1562)	XUSZM1524	15.9 (7.200)
	XUSLB/LDM1560	XUSLPZ6A0300●	-	65.5 (1664)	XUSZM1626	16.8 (7.600)
	XUSLB/LDM1640/1720	-	-	73.5 (1867)	XUSZM1830	18.7 (8.500)
XUSLB/LDM1800	-	-	73.5 (1867)	XUSZM1830	18.7 (8.500)	
XUSLB/LDM1920/2120	-	-	85.5 (2172)	XUSZM2134	21.6 (9.800)	

Stainless steel mirror (0.82 Sn) (1)

Description	For use with light curtains			Height (2) in (mm)	Reference	Weight lb (kg)
	XUSLB/LDM	XUSLP	XUSLN			
90° mirror adaptor with rotatable mounting	-	XUSLPZ1A●	-	5.5 (140)	XUSZA0102	2.4 (1.090)
	-	-	-	7.5 (191)	XUSZA0152	2.9 (1.300)
	XUSLB/LDM0280	-	XUSLN●●●0150	13.5 (343)	XUSZA0305	4.4 (2.000)
	XUSLB/LDM0320	-	XUSLN●●●0300	19.5 (495)	XUSZA0457	6 (2.700)
	XUSLB/LDM0360	-	-	-	-	-
	XUSLB/LDM0440	-	XUSLN●●●0450	21.5 (546)	XUSZA0508	6.6 (3.000)
	XUSLB/LDM0520	XUSLP●2A500●	-	25.5 (648)	XUSZA0610	7.7 (3.500)
	XUSLB/LDM0600/0680	XUSLP●2A0600●	XUSLN●●●0600	29.5 (749)	XUSZA0711	8.6 (3.900)
	XUSLB/LDM0720	-	-	31.5 (800)	XUSZA0762	9.3 (4.200)
	XUSLB/LDM0760	-	XUSLN●●●0750	33.5 (851)	XUSZA0813	9.7 (4.400)
	XUSLB/LDM0880	XUSLPZ3A0400●	-	37.5 (953)	XUSZA0914	9.9 (4.500)
	XUSLB/LDM0920/0960	-	XUSLN●●●0900	41.5 (1054)	XUSZA1016	11.9 (5.400)
	XUSLB/LDM1040	XUSLPZ3A0500●	-	43.5 (1105)	XUSZA1067	12.3 (5.600)
	XUSLB/LDM1120	XUSLPZ4A0300●	XUSLN●●●1050	49.5 (1257)	XUSZA1219	14.1 (6.400)
	XUSLB/LDM1200	XUSLPZ5A0300●	XUSLN●●●1200	53.5 (1359)	XUSZA1321	15 (6.800)
	XUSLB/LDM1360	-	XUSLN●●●1350	55.5 (1410)	XUSZA1372	15.4 (7.000)
	XUSLB/LDM1400	-	-	57.5 (1461)	XUSZA1422	16.1 (7.300)
	XUSLB/LDM1520	-	XUSLN●●●1500	61.5 (1562)	XUSZA1524	17.2 (7.800)
	XUSLB/LDM1560	XUSLPZ6A0300●	-	65.5 (1664)	XUSZA1626	18.3 (8.300)
	XUSLB/LDM1640/1720	-	-	73.5 (1867)	XUSZA1830	20.3 (9.200)
XUSLB/LDM1800	-	-	73.5 (1867)	XUSZA1830	20.3 (9.200)	
XUSLB/LDM1920/2120	-	-	85.5 (2172)	XUSZA2134	23.4 (10.600)	

(1) Sensing distance reduction coefficient to be taken into account for each 90° mirror adaptor used.

(2) Usable reflective height.

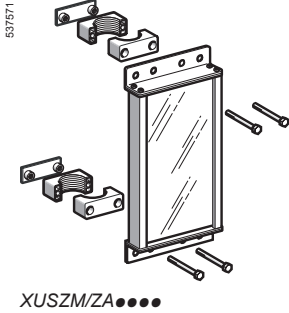
## Accessories

Description	Usage	Reference	Weight lb (kg)
Laser alignment tool	All types of light curtain	XUSLAT1	0.75 (0.340)

## Power supplies for light curtains XUSL●

Input voltage	Secondary			Reset	Conforming to standard EN 61000-3-2	Reference	Weight lb (kg)
	Output voltage	Nominal power	Nominal current				
~ 100...120 V - 200...500 V - 15 %, + 10 % 50/60 Hz	---	72 W	3 A	Auto/manu	Yes	ABL8RPS24030	0.7 (0.300)
	24...28,8 V	120 W	5 A	Auto/manu	Yes	ABL8RPS24050	1.5 (0.700)
		240 W	10 A	Auto/manu	Yes	ABL8RPS24100	2.2 (1.000)

Single phase (N-L1) or 2-phase (L1-L2) connection



Characteristics:  
page 24

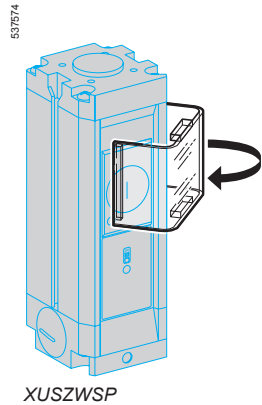
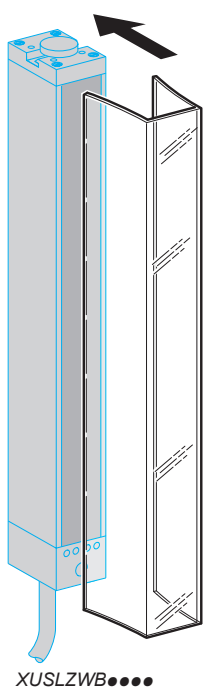
References:  
page 24

Dimensions:  
pages 28 and 31

Wiring diagrams:  
page 31

<b>Protective covers for light curtains XUSLB/XUSLDM/XUSLP</b>		<b>XUSZWS●●●●</b>	
<b>Environmental characteristics</b>			
<b>Air temperature</b>	For operation	<b>°F (°C)</b>	32 ... + 131 (0...+ 55)
	For storage	<b>°F (°C)</b>	- 13... + 158 (- 25... + 70)
<b>Material</b>			polycarbonate
<b>Sensing distance (Sn) reduction coefficient</b>			0.91 (1)
<b>Environmental chemicals</b>			
<b>Chemical resistance</b>	Acids, aliphatic hydrocarbons		Resistant
	Alcohols, Alkalis		Limited resistance
	Detergents and cleaners		
	Greases and oils		
	Silicone oils and greases not containing alkaline products		
	Amines		Not resistant
	Aromatic hydrocarbons		
	Detergents and cleaners containing alkaline		
	Esters		
	Halogenated hydrocarbons		
	Ketones		
	Silicone oils and greases containing alkaline products		

**References of protective covers**



Description	For use with	Height in (mm)	Reference	Weight lb (kg)
<b>polycarbonate protective covers for transmitter-receiver pair (0.91 Sn) (1)</b> <i>(Sold in sets of 2)</i>	XUSLB/DM280	12.2 (310)	<b>XUSLZWB0280</b>	0.6 (0.282)
	XUSLB/DM320	13.8 (350)	<b>XUSLZWB0320</b>	0.7 (0.318)
	XUSLB/DM360	15.4 (390)	<b>XUSLZWB0360</b>	0.8 (0.354)
	XUSLB/DM440	18.5 (470)	<b>XUSLZWB0440</b>	0.9 (0.426)
	XUSLB/DM520	21.7 (550)	<b>XUSLZWB0520</b>	1.1 (0.497)
	XUSLB/DM600	24.8 (630)	<b>XUSLZWB0600</b>	1.3 (0.569)
	XUSLB/DM680	28 (710)	<b>XUSLZWB0680</b>	1.4 (0.641)
	XUSLB/DM720	29.5 (750)	<b>XUSLZWB0720</b>	1.5 (0.677)
	XUSLB/DM760	31.1 (790)	<b>XUSLZWB0760</b>	1.6 (0.713)
	XUSLB/DM880	35.8 (910)	<b>XUSLZWB0880</b>	1.8 (0.821)
	XUSLB/DM920	37.4 (950)	<b>XUSLZWB0920</b>	1.9 (0.857)
	XUSLB/DM960	39 (990)	<b>XUSLZWB0960</b>	2.0 (0.893)
	XUSLB/DM1040	42.1 (1070)	<b>XUSLZWB1040</b>	2.1 (0.965)
	XUSLB/DM1120	45.3 (1150)	<b>XUSLZWB1120</b>	2.3 (1.037)
	XUSLB/DM1200	48.4 (1230)	<b>XUSLZWB1200</b>	2.4 (1.108)
	XUSLB/DM1360	54.7 (1390)	<b>XUSLZWB1360</b>	2.8 (1.252)
	XUSLB/DM1400	56.3 (1430)	<b>XUSLZWB1400</b>	2.8 (1.288)
	XUSLB/DM1520	61 (1550)	<b>XUSLZWB1520</b>	3.1 (1.396)
	XUSLB/DM1560	62.6 (1590)	<b>XUSLZWB1560</b>	3.2 (1.432)
	XUSLB/DM1640	65.7 (1670)	<b>XUSLZWB1640</b>	3.3 (1.504)
XUSLB/DM1720	68.9 (1750)	<b>XUSLZWB1720</b>	3.5 (1.576)	
XUSLB/DM1800	72 (1830)	<b>XUSLZWB1800</b>	3.6 (1.648)	
XUSLB/DM1920	76.8 (1950)	<b>XUSLZWB1920</b>	3.9 (1.756)	
XUSLB/DM2120	84.6 (2150)	<b>XUSLZWB2120</b>	4.3 (1.935)	

Description	For use with	Height in (mm)	Reference	Weight lb (kg)
<b>polycarbonate protective covers for single beam device (0.91 Sn) (1)</b> <i>(Sold in sets of 2)</i>	XUSLP	2.5 (62.48)	<b>XUSZWS●●●●</b>	2.2 (0.100)

(1) Sensing distance reduction coefficient to be taken into account for each pair of polycarbonate protective covers used.

### Anti-vibration kit

#### Selection according to weight and application

##### Weight classes

Light curtain type	Height in (mm)	Weight class				Type of mirror adaptors	Height in (mm)	Weight class			
		1	2	3	4			1	2	3	4
XUSLN	5.9...23.6 (150...600)	●				XUSZM (1)	4 (102)	●			
	29.5...59.1 (750...1500)		●				12...18 (305...457)		●		
XUSLB/LDMQ/LDSQ	11...40.9 (280...1040)		●			XUSZA	20...28 (508...711)			●	
	44.1...53.5 (1120...1360)			●			32...40 (813...1016)				●
XUSLBR/LDMY/LDSY	12.6...40.9 (320...1040)		●				4 (102)		●		
	44.1...83.5 (1120...2120)			●		12...42 (305...1067)			●		
XUSLPZ1A	-			●		48...64 (1219...1626)				●	
XUSLPZ2A0500 et XUSLPZ2A0600	-			●		72...84 (1830...2134)				●	
XUSLPZ3A0400	-			●							
XUSLPZ3A0500	-				●						
XUSLPZ4A0300	-			●							
XUSLPZ5A0300 et XUSLPZ6A0300	-				●						
XUSLPB2A500 et XUSLPB2A600	-				●						

(1) Use of the anti-vibration kit is not recommended for mirror adaptors greater than 40 in (1016 mm) in height.

##### Applications

Weight class	Anti-shock applications (1)				Anti-vibration applications (2)			
	Shear mounted		Compression mounted		Shear mounted		Compression mounted	
	Number of mountings per head (3)	Reference	Number of mountings per head (3)	Reference	Number of mountings per head (3)	Reference	Number of mountings per head (3)	Reference
1	2	XSZSMK	Not recommended		2 or 4	XSZSMK	2	XSZSMK1
	2	XSZSMK1			2 or 4	XSZSMK1		
2	2 or 4	XSZSMK	2	XSZSMK1	2 or 4	XSZSMK	2	XSZSMK
	2 or 4	XSZSMK1			2 or 4	XSZSMK1	2 or 4	XSZSMK1
3	4	XSZSMK	2	XSZSMK	2	XSZSMK2	2 or 4	XSZSMK
	4	XSZSMK1			2 or 4	XSZSMK1		
	2 or 4	XSZSMK2			4	XSZSMK1		
4	4	XSZSMK	2	XSZSMK	2 or 4	XSZSMK2	4	XSZSMK
	4	XSZSMK1			4	XSZSMK1		
	4	XSZSMK1			4	XSZSMK1		
	2	XSZSMK2			2 or 4	XSZSMK2		

(1) Low frequency, high amplitude applications, such as punching presses where a powerful shock can exist.

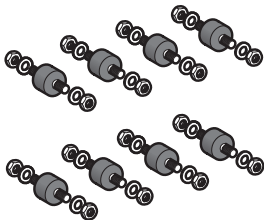
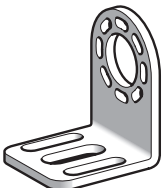
(2) High frequency, low amplitude applications, such as offset printing machines where constant vibration can exist.

(3) Head: transmitter, receiver or mirror.

##### Shock absorber characteristics

Characteristics per shock absorber	Compression mounted			Shear mounted			
	Maximum load	Torque	Natural frequency	Maximum load	Torque	Natural frequency	
	lb (kg)	lb-in (N-m)	Hz	lb (kg)	lb-in (N-m)	Hz	
For anti-vibration kit	XSZSMK	18.0 (8.16)	222.5 (25.16)	11	3.0 (1.36)	27.7 (3.13)	9.5
	XSZSMK1	4.8 (2.177)	96.1 (10.86)	14	2.5 (1.13)	20.7 (2.34)	9
	XSZSMK2	55.0 (24.94)	949.7 (107.39)	13	23.0 (10.43)	132.2 (14.94)	7.5

#### References of anti-vibration kits

Description	For use with	Reference	Weight lb (kg)
 <p>Anti-vibration kit consisting of 8 shock absorbers, 90° mirror adaptors stud fixing. 16 washers and 16 nuts included with kit.</p>	All types of light curtain and 90° mirror adaptors	XSZSMK	0.07 (0.030)
		XSZSMK1	0.04 (0.020)
		XSZSMK2	0.1 (0.045)
 <p>Mounting kit for XUSLN (2 brackets)</p>	Anti-vibration kit	XUSLZ227	1.0 (0.450)

537570 XSZ SMK ●

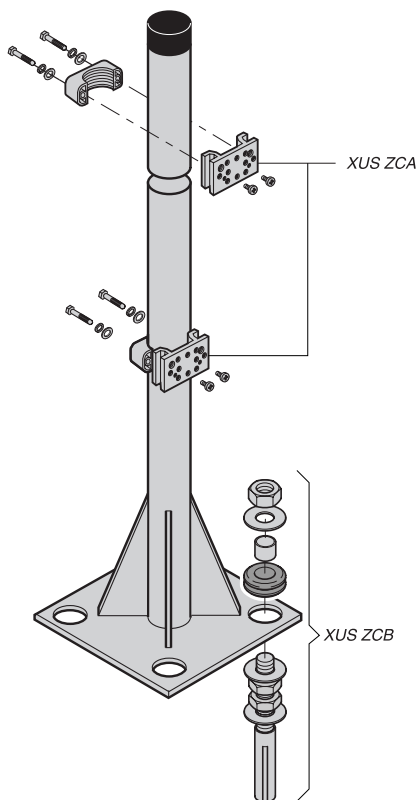
XUSLZ227

# Safety detection solutions Preventa™

Accessories for safety light curtains types 2 and 4

<b>Mounting base for light curtains and mirrors</b>		<b>XUSZC●●●●</b>	
<b>Environmental characteristics</b>			
Ambient air temperature	Operating	°F (°C)	- 13...+ 158 (- 25...+ 70)
	For storage	°F (°C)	- 13...+ 158 (- 25...+ 70)
Materials		Mounting base: steel End protection: black polycarbonate, 20% fiberglass	

## References



### Mounting bases

Désignation	For use with			Protected height in (mm)	Reference	Weight lb (kg)
	Light curtains Height in (mm)	Mirrors Height in (mm)	IP 67 tube Height in (mm)			
<b>Mounting base XUSZC●●●●</b>	5.9 ...35.4 (150...900)	7.2 ...35.2 (182...894)	19.8 ...38.6 (503...981)	47.2 (1200)	<b>XUSZC1200</b>	25 (11.340)
	36.2 ...59.1 (920...1500)	39.2 ...59.2 (995...1503)	43.4 ...63.8 (1102...1620)	70.9 (1800)	<b>XUSZC1800</b>	35 (15.880)
	59.8 ...70.9 (1520...1800)	63.2 ...67.2 (1605...1706)	68.5 ...76.3 (1740...1939)	82.7 (2100)	<b>XUSZC2100</b>	45 (20.410)
	75.6 ...82.5 (1920...2095)	75.2 (1910)	79.6 ...84.3 (2021...2141)	94.5 (2400)	<b>XUSZC2400</b>	60 (27.220)
	–	88.2 (2240)	92 (2336)	122 (3100)	<b>XUSZC3100</b>	66 (29.940)

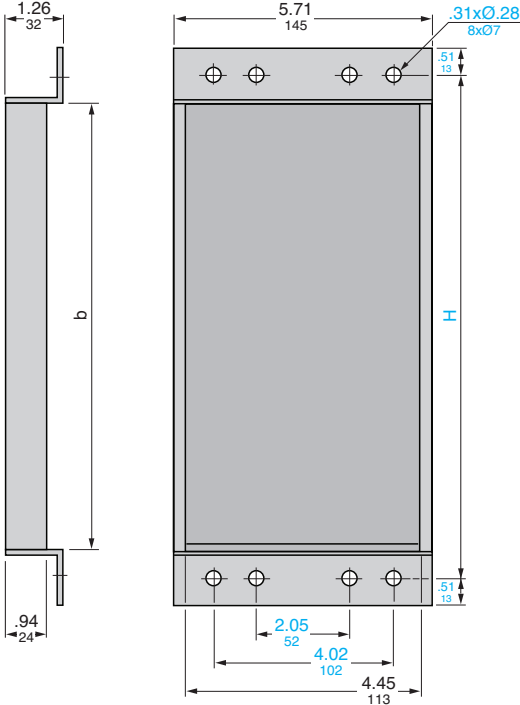
### Accessories

Description	For use with	Reference	Weight lb (kg)
<b>Mounting kit</b> (sold in lots of 2)	Mounting base XUSZC●●●●	<b>XUSZCA</b>	1.0 (0.450)
<b>Floor mounting kit</b> Consisting of: 4 bolts, 4 rawplugs, 12 washers, 8 standard nuts, 4 lock nuts, 4 rubber insulators, 4 spacers (tube)	Mounting base XUSZC●●●●	<b>XUSZCB</b>	1.0 (0.450)

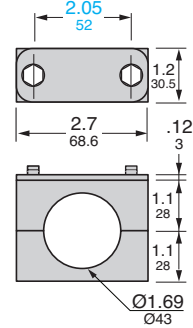
90° mirror adaptors + Mounting clamps

XUSZM●●●●/XUSZA●●●●

Mounting clamp (quantity 2)



XUS		b	H
Glass	Stainless steel		
ZM0102	ZA102	5.5 (140)	0.7 (182)
ZM0152	ZA152	7.5 (191)	9.2 (233)
ZM0305	ZA0305	13.5 (343)	15.2 (386)
ZM0457	ZA0457	19.5 (495)	21.2 (538)
ZM0508	ZA0508	21.5 (546)	23.2 (589)
ZM0610	ZA0610	25.5 (648)	27.2 (690)
ZM0711	ZA0711	29.5 (749)	31.2 (792)
ZM0762	ZA0762	31.5 (800)	33.2 (843)
ZM0813	ZA0813	33.5 (851)	35.2 (894)
ZM0914	ZA0914	37.5 (953)	39.2 (995)
ZM1016	ZA1016	41.5 (1054)	43.2 (1097)
ZM1067	ZA1067	43.5 (1105)	45.2 (1148)
ZM1219	ZA1219	49.5 (1257)	51.2 (1300)
ZM1321	ZA1321	53.5 (1359)	55.2 (1402)
ZM1372	ZA1372	55.5 (1410)	57.2 (1452)
ZM1422	ZA1422	57.5 (1461)	59.2 (1503)
ZM1524	ZA1524	61.5 (1562)	63.2 (1605)
ZM1626	ZA1626	65.5 (1664)	67.2 (1706)
ZM1830	ZA1830	73.5 (1867)	75.2 (1910)
ZM2134	ZA2134	85.5 (2172)	87.2 (2214)



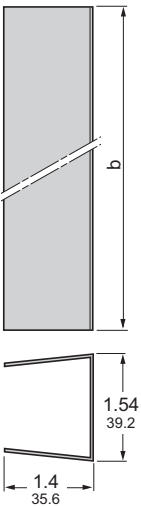
Dual Dimensions: INCHES  
Millimeters

Protective cover

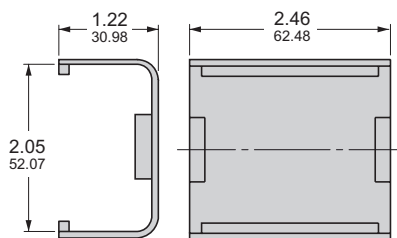
XUSZW●●● for XUL B/D

XUS b

XUSZWSP for XUSLP



LZWB0280	12.2 (310)
LZWB0320	13.8 (350)
LZWB0360	15.4 (390)
LZWB0440	18.5 (470)
LZWB0520	21.7 (550)
LZWB0600	24.8 (630)
LZWB0680	28 (710)
LZWB0720	29.5 (750)
LZWB0760	31.1 (790)
LZWB0880	35.8 (910)
LZWB0920	37.4 (950)
LZWB0960	39 (990)
LZWB1040	42.1 (1070)
LZWB1120	45.3 (1150)
LZWB1200	48.4 (1230)
LZWB1360	54.7 (1390)
LZWB1400	56.3 (1430)
LZWB1520	61 (1550)
LZWB1560	62.6 (1590)
LZWB1640	65.7 (1670)
LZWB1720	68.9 (1750)
LZWB1800	72 (1830)
LZWB1920	76.8 (1950)
LZWB2120	84.6 (2150)

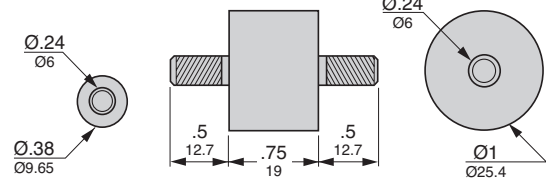
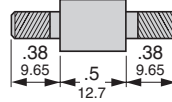
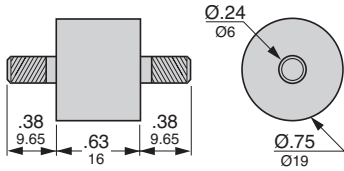


**Anti-vibration kits (1)**

**XSZ SMK**

**XSZ SMK1**

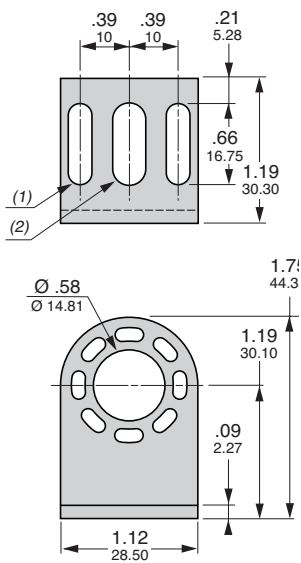
**XSZ SMK2**



(1) The anti-vibration kit consists of 8 shock absorbers, 16 washers and 16 nuts.

**Mounting brackets for anti-vibration kit**

**XUSLZ227 and XUSLN**



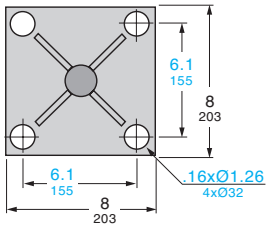
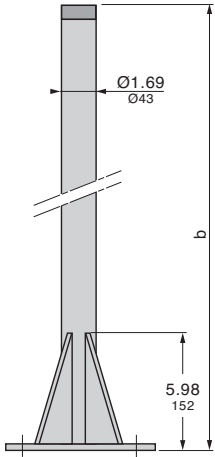
Dual Dimensions: INCHES  
Millimeters

(1) 2 elongated holes Ø 0.2 x 0.7 in (Ø 5.10 x 16.75 mm).

(2) 1 elongated hole Ø 0.3 x 0.7 in (Ø 6.75 x 16.75 mm).

**Mounting base**

XUSZC●●●●

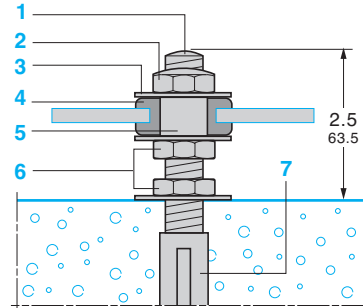


XUS	b in (mm)
ZC1200	47.3 (1200)
ZC1800	70.9 (1800)
ZC2100	82.7 (2100)
ZC2400	94.5 (2400)
ZC3100	122 (3100)

**Floor mounting kit (quantity 4) for mounting base XUSZC●●●●**

XUSZCB

Echelle 2,5



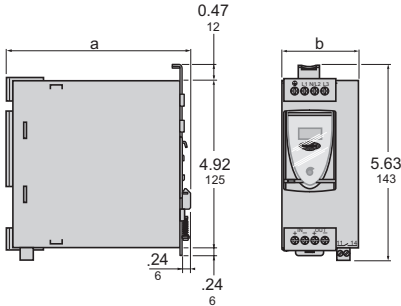
- 1 Bolt,
- 2 1 lock nut,
- 3 3 washers,
- 4 Rubber insulator,
- 5 Spacer (tube),
- 6 2 standard nuts,
- 7 Rawplug.

Dual Dimensions: INCHES  
Millimeters



## Dimensions

**ABL8RPS24●●●**  
common side view



ABL8	a in (mm)	b in (mm)
RPS24030	4.7 (120)	1.7 (44)
RPS24050	4.7 (120)	2.2 (56)
RPS24100	5.5 (140)	3.3 (85)

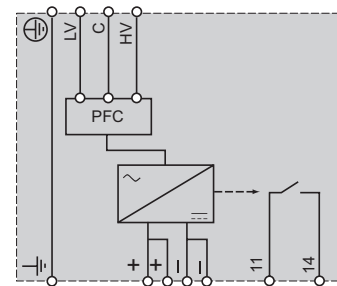
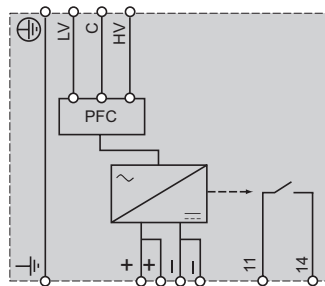
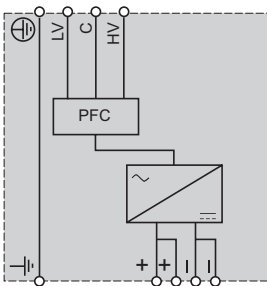
Dual Dimensions: INCHES  
Millimeters

## Internal wiring diagrams

**ABL8RPS24030**

**ABL8RPS24050**

**ABL8RPS24100**



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