

Accessories

And Spare Parts for Light Curtains

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safety light curtains

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■ Mirrors

The correct mirror is important to maintaining the integrity of a safety light curtain system. Whenever an infrared beam strikes a mirror a certain percentage of the signal will be lost. In order to minimize this loss, glass and stainless steel mirrors from STI use materials of the highest possible optical quality.

Mirror Material

Mirror Material	Percentage of range lost per mirror
Front Reflective Surface Glass	12%
Polished Stainless Steel	18%

Glass mirrors are built with front reflective surface glass. This material provides the minimum possible signal loss. For applications where the possibility of broken glass cannot be tolerated, wide, polished stainless steel mirrors are available in all heights.

STI mirrors are available in both a narrow and a wide package. If space permits, the wide mirrors are recommended for ease of alignment. Narrow mirrors have 51 mm (2 in.) wide reflective surfaces and can be used on applications where space is limited or the range between the light curtain transmitter and receiver is short. Narrow mirrors are available in 102 mm (4 in.) height increments up to 1219 mm (48 in.). Wide mirrors have 108 mm (4.25 in.) wide reflective surfaces

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For in-depth information on safety standards and use.

and ease alignment on applications with a large perimeter or where there are no space limitations. Wide mirrors are available in sizes that correspond to all STI light curtain sizes from 102 to 2440 mm (4 to 96 in.)

Net Range Using Mirrors (percentage of maximum range)

Material	No. of Mirrors Used			
	1	2	3	4
Glass	88%	77%	68%	60%
Stainless Steel	82%	67%	55%	45%

Length	Model Number	Weight	Model Number	Weight	Model Number	Model Number
	Narrow Glass	kg/lb.	Wide Glass	kg/lb.	Wide Stainless Steel*	Narrow Stainless Steel*†
102 mm (4 in.)	MIRN-04FG	0.8/1.74	MIRW-04FG	1.0/2.3	MIRW-04SS	MIRN-04SS
152 mm (6 in.)			MIRW-06FG	1.3/2.8	MIRW-06SS	
203 mm (8 in.)	MIRN-08FG	1.0/2.36	MIRW-08FG	1.5/3.3	MIRW-08SS	MIRN-08SS
305 mm (12 in.)	MIRN-12FG	1.4/2.98	MIRW-12FG	1.9/4.2	MIRW-12SS	MIRN-12SS
406 mm (16 in.)	MIRN-16FG	1.6/3.60	MIRW-16FG	2.4/5.2	MIRW-16SS	MIRN-16SS
457 mm (18 in.)			MIRW-18FG	2.5/5.6	MIRW-18SS	
508 mm (20 in.)	MIRN-20FG	1.9/4.22	MIRW-20FG	2.8/6.1	MIRW-20SS	MIRN-20SS
610 mm (24 in.)	MIRN-24FG	2.2/4.84	MIRW-24FG	3.2/7.1	MIRW-24SS	MIRN-24SS
711 mm (28 in.)	MIRN-28FG	2.5/5.46	MIRW-28FG	3.7/8.1	MIRW-28SS	MIRN-28SS
762 mm (30 in.)			MIRW-30FG	3.8/8.5	MIRW-30SS	
813 mm (32 in.)	MIRN-32FG	2.8/6.08	MIRW-32FG	4.0/9.0	MIRW-32SS	MIRN-32SS
913 mm (36 in.)	MIRN-36FG	3.0/6.70	MIRW-36FG	4.5/9.9	MIRW-36SS	MIRN-36SS
1016 mm (40 in.)	MIRN-40FG	3.3/7.32	MIRW-40FG	5.0/10.9	MIRW-40SS	MIRN-40SS
1067 mm (42 in.)			MIRW-42FG	5.2/11.4	MIRW-42SS	
1118 mm (44 in.)	MIRN-44FG	3.6/7.94	MIRW-44FG	5.4/11.9	MIRW-44SS	MIRN-44SS
1219 mm (48 in.)	MIRN-48FG	3.9/8.56	MIRW-48FG	5.9/12.9	MIRW-48SS	MIRN-48SS
1321 mm (52 in.)			MIRW-52FG	5.3/13.8	MIRW-52SS	MIRN-52SS
1372 mm (54 in.)			MIRW-54FG	6.5/14.3	MIRW-54SS	
1422 mm (56 in.)			MIRW-56FG	6.7/14.8	MIRW-56SS	
1524 mm (60 in.)			MIRW-60FG	7.2/15.8	MIRW-60SS	
1626 mm (64 in.)			MIRW-64FG	7.6/16.8	MIRW-64SS	
1830 mm (72 in.)			MIRW-72FG	8.5/18.6	MIRW-72SS	
2134 mm (84 in.)			MIRW-84FG	9.8/21.5	MIRW-84SS	
2440 mm (96 in.)			MIRW-96FG	11.0/24.3	MIRW-96SS	

* Consult factory for weights.

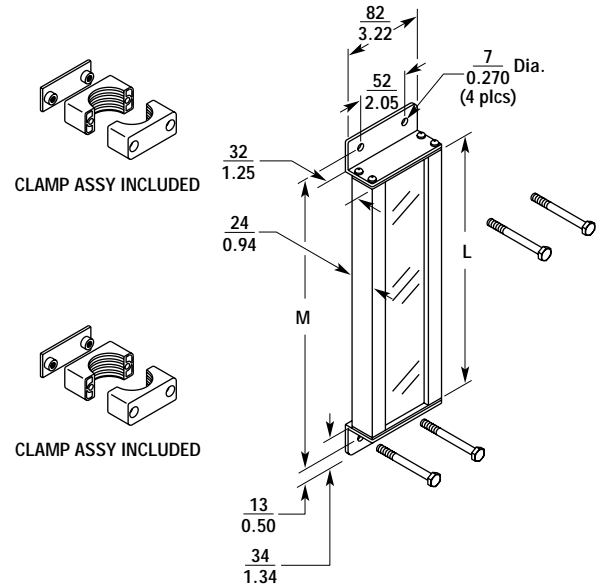
† Use for ESD applications

Mirror Dimensions and Model Numbers

Narrow Mirror Package (MIRN)

Narrow Mirror Dimensions— Front Reflective Surface Glass

Part Number	Dimension L		Dimension M	
	mm/in.	mm/in.	mm/in.	mm/in.
42326-0040	152/6.0	195/7.68		
42326-0080	254/10.0	297/11.68		
42326-0120	356/14.0	398/15.68		
42326-0160	457/18.0	500/19.68		
42326-0200	559/22.0	601/23.68		
42326-0240	660/26.0	703/27.68		
42326-0280	762/30.0	805/31.68		
42326-0320	864/34.0	906/35.68		
42326-0360	965/38.0	1008/1139.68		
42326-0400	1067/42.0	1109/43.68		
42326-0440	1168/46.0	1211/47.68		
42326-0480	1270/50.0	1313/51.68		

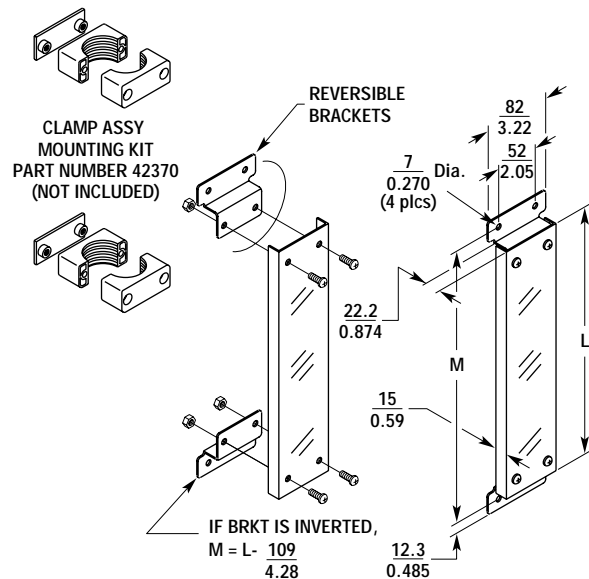


This drawing is available in CAD format at www.sti.com/curtains/cad/12101.DXF

Narrow Mirror Dimensions— Stainless Steel Reflective Surface

Part Number	Dimension L		Dimension M	
	mm/in.	mm/in.	mm/in.	mm/in.
43863-0040	203/8.0	236/9.28		
43863-0080	305/12.0	337/13.28		
43863-0120	406/16.0	439/17.28		
43863-0160	508/20.0	541/21.28		
43863-0200	610/24.0	642/25.28		
43863-0240	711/28.0	744/29.28		
43863-0280	813/32.0	845/33.28		
43863-0320	914/36.0	947/37.28		
43863-0360	1016/40.0	1049/41.28		
43863-0400	1118/44.0	1150/45.28		
43863-0440	1219/48.0	1252/49.28		
43863-0480	1321/52.0	1353/53.28		

Notes: Use for ESD applications.
Use mounting kit Model Number 42370 to mount to STI stands.

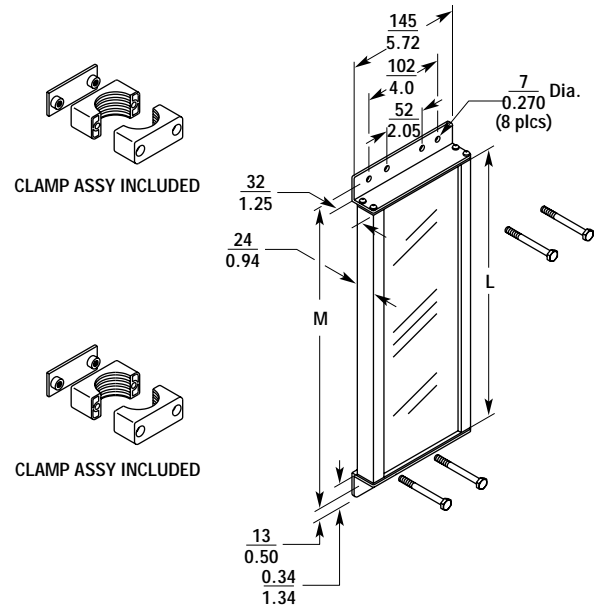


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For in-depth information on safety standards and use.

Wide Mirror Package (MIRW)



This drawing is available in CAD format at www.sti.com/curtains/cad/12101.DXF



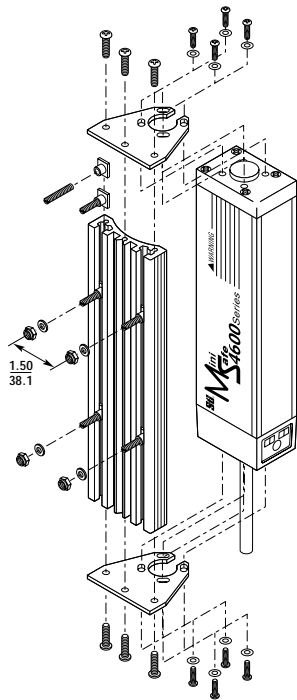
safety light curtains

**Wide Mirror Dimensions—
Front Reflective Surface Glass**

Part Number	Dimension L	Dimension M
	mm/in.	mm/in.
41030-0040	140/5.5	182/7.18
41030-0060	191/7.5	233/9.18
41030-0080	241/9.5	284/11.18
41030-0120	343/13.5	386/15.18
41030-0160	445/17.5	487/19.18
41030-0180	495/19.5	538/21.18
41030-0200	546/21.5	589/23.18
41030-0240	648/25.5	690/27.18
41030-0280	749/29.5	792/31.18
41030-0300	800/31.5	843/33.18
41030-0320	851/33.5	894/35.18
41030-0360	953/37.5	995/39.18
41030-0400	1054/41.5	1097/43.18
41030-0420	1105/43.5	1148/45.18
41030-0440	1156/45.5	1198/47.18
41030-0480	1257/49.5	1300/51.18
41030-0520	1359/53.5	1402/55.18
41030-0540	1410/55.5	1452/57.18
41030-0560	1461/57.5	1503/59.18
41030-0600	1562/61.5	1605/63.18
41030-0640	1664/65.5	1706/67.18
41030-0720	1867/73.5	1910/75.18
41030-0840	2172/85.5	2214/87.18
41030-0960	2477/97.5	2519/99.18

**Wide Mirror Dimensions—
Stainless Steel Reflective Surface**

Part Number	Dimension L	Dimension M
	mm/in.	mm/in.
43454-0040	140/5.5	182/7.18
43454-0060	191/7.5	233/9.18
43454-0080	241/9.5	284/11.18
43454-0120	343/13.5	386/15.18
43454-0160	445/17.5	487/19.18
43454-0180	495/19.5	538/21.18
43454-0200	546/21.5	589/23.18
43454-0240	648/25.5	690/27.18
43454-0280	749/29.5	792/31.18
43454-0300	800/31.5	843/33.18
43454-0320	851/33.5	894/35.18
43454-0360	953/37.5	995/39.18
43454-0400	1054/41.5	1097/43.18
43454-0420	1105/43.5	1148/45.18
43454-0440	1156/45.5	1198/47.18
43454-0480	1257/49.5	1300/51.18
43454-0520	1359/53.5	1402/55.18
43454-0540	1410/355.5	1452/57.18
43454-0560	1461/57.5	1503/59.18
43454-0600	1562/61.5	1605/63.18
43454-0640	1664/65.5	1706/67.18
43454-0720	1867/73.5	1910/75.18
43454-0840	2172/85.5	2214/87.18
43454-0960	2477/97.5	2519/99.18



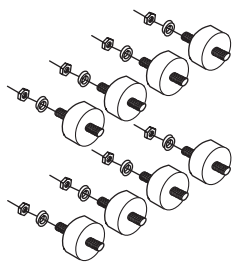
■ T-Slot Brackets

MS4600-14, -20, -30 and OF4600-50 Rail Mounting Kits

Part Number	Description	mm/in.
43801-0010	MS46 Rail Mounting Kit 260mm	260/10.35
43801-0020	MS46 Rail Mounting Kit 350mm	350/13.78
43801-0030	MS46 Rail Mounting Kit 435mm	435/17.20
43801-0040	MS46 Rail Mounting Kit 520mm	520/20.62
43801-0050	MS46 Rail Mounting Kit 610mm	610/24.05
43801-0060	MS46 Rail Mounting Kit 700mm	700/27.47
43801-0070	MS46 Rail Mounting Kit 785mm	785/30.89
43801-0080	MS46 Rail Mounting Kit 870mm	870/34.32
43801-0090	MS46 Rail Mounting Kit 955mm	955/37.74
43801-0100	MS46 Rail Mounting Kit 1045mm	1045/41.16
43801-0110	MS46 Rail Mounting Kit 1130mm	1130/44.60
43801-0120	MS46 Rail Mounting Kit 1215mm	1215/48.01
43801-0130	MS46 Rail Mounting Kit 1305mm	1305/51.43
43801-0140	MS46 Rail Mounting Kit 1390mm	1390/54.86
43801-0160	MS46 Rail Mounting Kit 1570mm	1570/61.71
43801-0180	MS46 Rail Mounting Kit 1745mm	1745/68.56
43801-0200	MS46 Rail Mounting Kit 1920mm	1920/75.41
43801-0220	MS46 Rail Mounting Kit 2095mm	2095/82.27

■ Shock Mount Kits

These kits are used to isolate light curtain receivers and transmitters from possible sources of vibration. They can also be used to shock-mount controllers/power supplies and mirrors. Each kit consists of eight mounts.



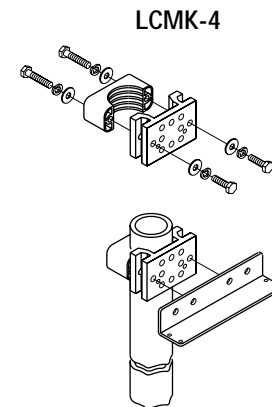
Part Number	Description
40316-0020	Shock Mounting Kit for Weight Class 1 MC/MCF4700
42591-0030	Shock Mounting Kit for Weight Class 2 MC/MCF4700
42591	Shock Mounting Kit for Weight Class 2
41768	Shock Mounting Kit for Weight Class 3 and 4

MC/MCF4700 Series	Weight Class	PA4600 Series	Weight Class
MC/MCF4700 Lengths 150-600	1	PA46-2-500	3
MC/MCF4700 Lengths 750-1800	2	PA46-2-600	3
MS4700 Series		PA46-3-400	3
MS4700 Lengths 150-600	2	PA46-3-500	4
MS4700 Lengths 750-1200	3	PA46-4-300	3
MS4700 Lengths 1200-1800	4	PA46-5-300	4
MS/OF4600 Series		PA46-6-300	4
MS/OF4600 Lengths 260-870	2		
MS/OF4600 Lengths 1045-1390	3		
MS/OF4600 Lengths 1570-2095	4		

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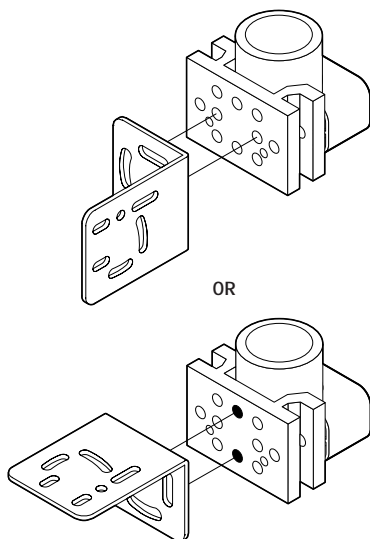
■ Mounting Accessories

Model Number	Description
LCMK-4	Allows a transmitter/receiver pair of any model STI light curtain to be mounted to STI stands.
25762-0010	Mirror mounting bracket designed for mounting mirrors close to floor level when using STI mirror stands.
BSMK	Allows mounting of one BeamSafe II transmitter and one BeamSafe II receiver to STI mounting stands.
ESBKT	Allows mounting of BSMK, LCMK-4 and MIR45BKT components to extruded aluminum framing systems and other flat surfaces. Four required for use with LCMK-4, two required for use with BSMK, and one required for use with each MIR45BKT.
42370	Mirror mounting brackets, will mount to STI stands.

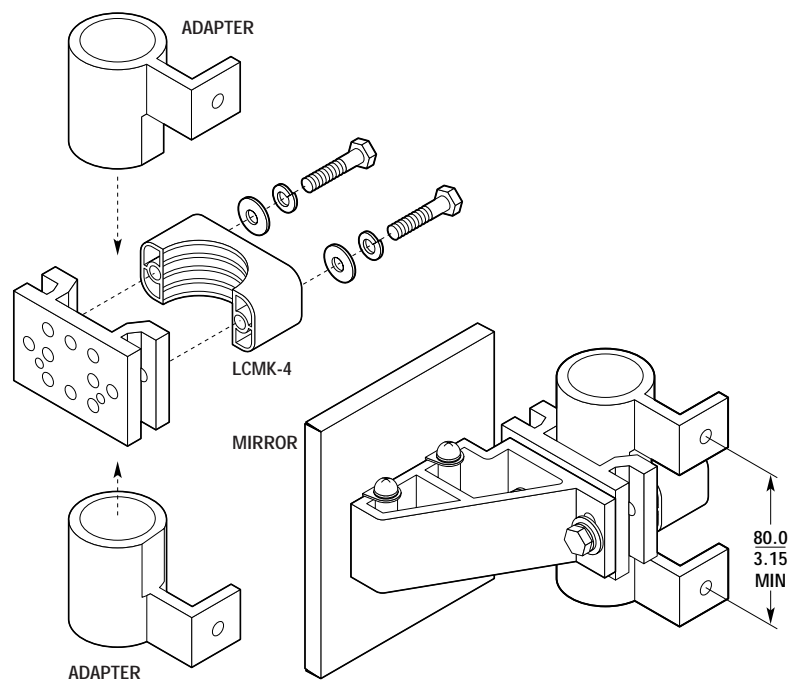


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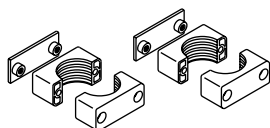
BSMK



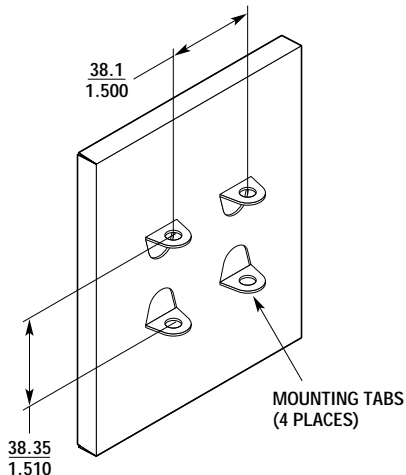
ESBKT (INCLUDES ADAPTERS ONLY)



MIRROR MOUNTING BRACKETS PART NUMBER 42370



MIR45-FG and MIR45-SS

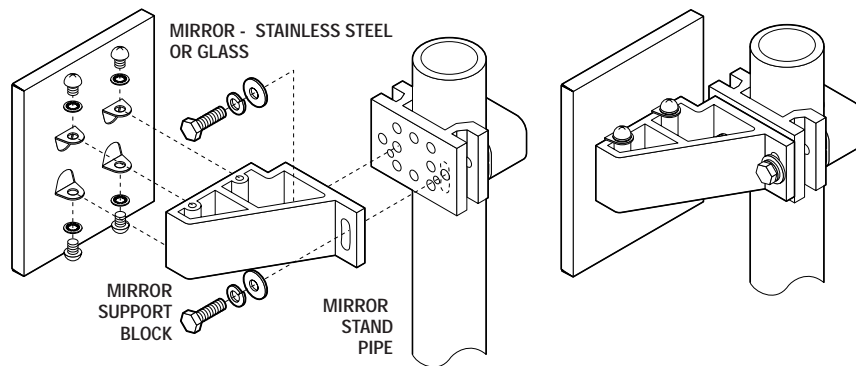


■ 45° Mirror Bracket and Mirror

Use in conjunction with BeamSafe II to guard large perimeters or protect openings using a “double bounce” arrangement.

Part Number	Description
MIR45-FG	4 in. front reflective surface glass mirror for use with MIR45BKT
MIR45-SS	4 in. polished stainless steel mirror for use with MIR45BKT
MIR45BKT	Bracket for mounting MIR45 to STI stand at 45° angle

MIR45BKT

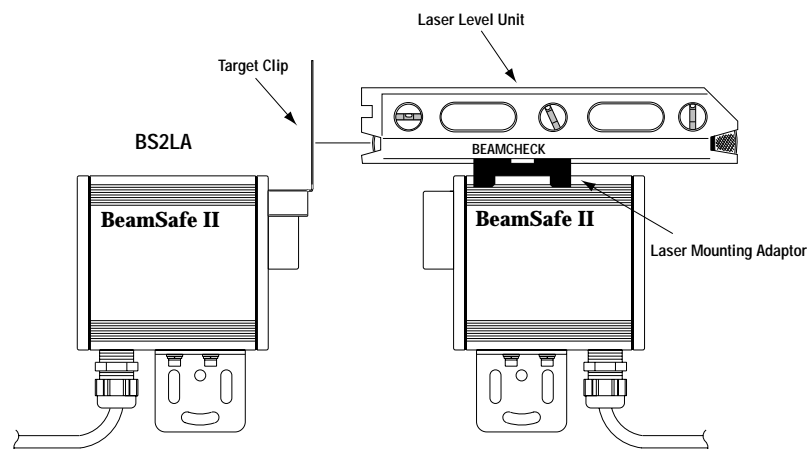


■ Laser Alignment Tool

To assist with long-range alignment of installations. Tool includes precision laser tool, mounting brackets and associated targets and sturdy carrying case. Requires 3 AA batteries (included).



Model Number	Description
UNLA	Laser alignment tool (Part Number 40355-0010)
BS2LA	Laser alignment tool for use with BeamSafe II
46LA	Laser alignment tool for use with MS/PA/OF4600 series



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■ Power Supply

These DIN-rail mounted, CE marked power supplies allow STI products such as the 4600 Series, 4700 Series and Resource Modules, which operate exclusively from 24 VDC to be powered by 115 and 230 VAC. Input: 115 or 230 VAC.

Part Number	Description
42992	24 VDC power supply, 50 W, 2.1 A
40128	24 VDC power supply, 100 W, 4.2 A

■ Reset Switches

These switches can be mounted remotely and used to perform the reset function on all STI safety light curtains. Order by part number.

Part Number	Description
43307-0010	Key Switch Assembly, Panel Mount
43307-0020	Push Button Switch Assembly, Panel Mount



43307-0020

43307-0010

■ Relay Board Assembly Replacements

The Relay Board Assembly contains force-guided relays. All components are installed on a circuit board assembly.

Part Number	Description
42998-0030	Relay Board Assembly without Mute; D Series Controller only
42998-0040	Relay Board Assembly with Mute; D Series Controller only
42998-0050	Relay Board Assembly; E Series Controller only
68030-0010	Relay Board Assembly for MG4600
68070-0010	Relay Board Assembly for LCM-100 Controller

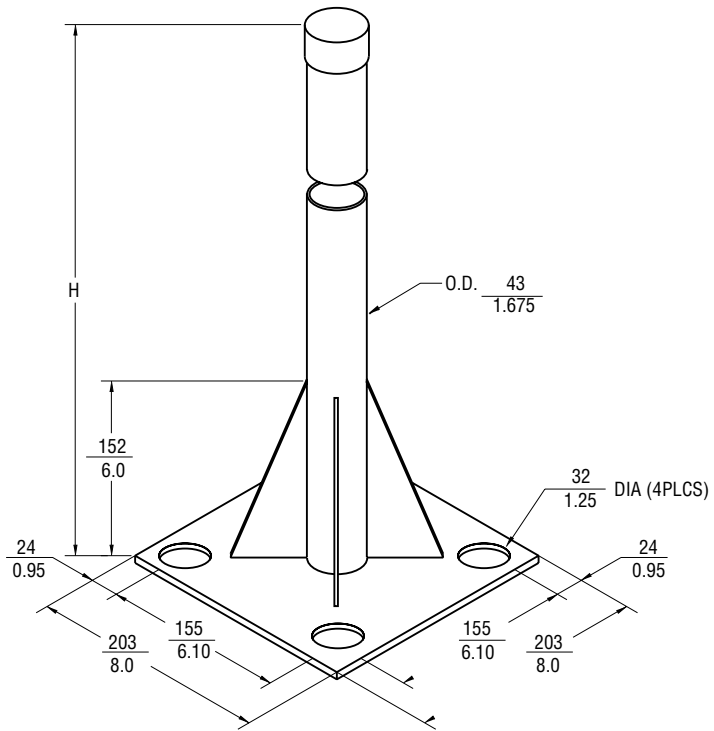
■ Snubber Kits

Part Number	Description
43127-0010	A set of 2 R-C snubbers to be mounted across inductive loads which may be connected to light curtain output relays (AC coils only)
43127-0020	A set of transient voltage suppressors (TVS) for DC coils

■ **Heavy Duty Floor Stands**

STI stands provide a stable, secure method for mounting both safety light curtains and mirrors. Hardware for mounting stand to concrete floor is included. Order by model number.

Model Number	Part Number	Height m/ft.	Weight kg/lb.
MIRS-04	42338-0040	1.2/4	8.8/19.3
MIRS-06	42338-0060	1.8/6	11.2/24.7
MIRS-07	42338-0070	2.1/7	12.5/27.4
MIRS-08	42338-0080	2.4/8	13.7/30.1
MIRS-10	42338-0100	3.1/10	16.1/35.4



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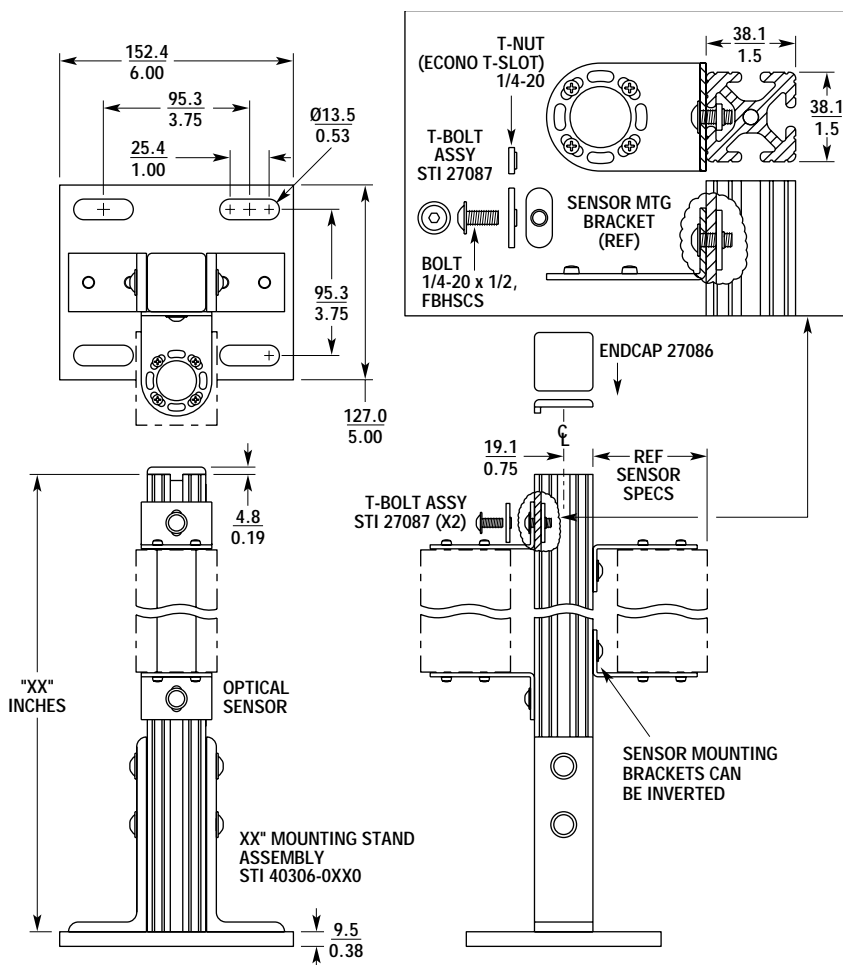
■ **Light Duty Floor Stands**

Light curtains and perimeter guards used to detect the torso of personnel have specific mounting requirements per ANSI/RIA R15.06 and other standards. These light duty stands are ideal for mounting the bottom beam of the light curtain or perimeter guard within the required 0.3 m (12 in.) from the floor. The new Light Duty Floor Stand is a cost effective alternative to our more robust heavy duty stand, and mounting hardware is included.

Model Number	Part Number	Description	Height m/in.
PA-STAND-40	40306-0400	Light-Duty Floor Stand	1.0/40
PA-STAND-44	40306-0440	Light-Duty Floor Stand	1.1/44
PA-STAND-48	40306-0480	Light-Duty Floor Stand	1.2/48
PA-STAND-52	40306-0520	Light-Duty Floor Stand	1.3/52
PA-STAND-56	40306-0560	Light-Duty Floor Stand	1.4/56



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■ Fuse and Relay Kits

STI recommends the purchase of a Fuse and Relay kit with every light curtain. Kit contains three force-guided replacement relays, hold-down tie-wraps and a replacement fuse for use with either the Universal or DuoSafe controller. Order by model number.

Model Number	Description
43120-0010	Relay and Fuse Kit for 120 VAC Universal or DuoSafe controllers
43121-0010	Relay and Fuse Kit for 220 VAC Universal or DuoSafe controllers

■ Spare Replacement Fuses

Model Number	Description
51122	Fuse, 250 mA, 250 V slow blow for use on 220 VAC versions of MC42E, MC42D and DSC controllers and on 120 VAC versions of LCC universal controllers
51135	Fuse, 125 mA, 250 V slow blow for use on 220 VAC versions of LCC universal controllers
51145	Fuse, 500 mA, 250 V slow blow for use on 120 VAC versions of MC42E, MC42D and DSC controllers
51353	Fuse, 2 A, 250 V slow blow for use on VAC versions of LCM-100 controllers
51376	Fuse, 3.15 A, 250 V slow blow for use on 24 VDC versions of LCM-100 controllers
44512-0340	500 mA fuse for MG4600

■ Test Objects

Replacement of additional test objects can be ordered by part number. Make sure you order the test object for the correct light curtain model desired.

Part Number	Description
42800-0200	Test object 12 mm (0.47 in.) for MC4700-12, MS4700-12 and MCF4700-12
42800-0110	Test object, 19.1 mm (0.75 in.) for MS4300, FS4300, MG4600-20 and MS4600-20
42800-0120	Test object, 20.3 mm (0.80 in.) for MC4200 and MCF4200
42800-0130	Test object, 25.4 mm (1.00 in.) for MS4400, MS4500, and FS4400
42800-0030	Test object, 45.7 mm (1.80 in.) for MS4200 and MCF4200 with Floating Blanking (2 beams)
42800-0140	Test object, 31.8 mm (1.25 in.) for OptoSafe P4100 , MS4600-30, MS4700-30, MC4700-30 and MCF4700-30
42800-0150	Test object, 33.0 mm (1.30 in.) for MicroSafe with Floating Blanking (1 beam)
42800-0180	Test object, 50.8 mm (2.00 in.) for MS4400, MS4500 and PA4500D with Floating Blanking (2 beams).
42800-0220	Test object, 30 mm (1.18 in.) for MC4700-30, MG4600-30, MS4600-30 and MS4700-30
42800-0240	Test object, 14 mm (0.55 in.) for MC4700-14, MS4600-14 and MS4700-14
42800-0230	Test object, 50 mm (2.2 in.) for MG4600-50 and OF4600-50

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■ Weld Slag Protective Shields for MS4600, OF4600, MC4700 and PA4600 Series

- Available in a full range of sizes
 - MS4600: 293 to 2120 mm (11.55 to 83.47 in.);
 - OF4600: 728 to 2120 mm (28.67 to 83.47 in.);
 - MC4700: 102 to 1602 mm (5.21 to 64.27 in.)
 - PA4600: 62.48 mm (2.46 in.)
- Reduces down time and increases the life of the curtain
- Resistant to many chemicals and compounds
- Easy to install and replace
- Lexan® construction

These protective shields are designed to protect the light curtains, when used in harsh applications. In many cases, welding cell applications produce hot weld slag that over time may damage the lens (filter) and degrade the light curtain's performance. These covers offer the user the ability to easily and inexpensively reduce machine down time. The covers are available to fit all sizes.



PA4600

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Chemical Resistance of Lexan®

Chemical Class		Effects
Acids	R	No significant effect under most typical conditions of concentration and temperature.
Alcohols	LR	Generally compatible at low concentration and room temperature. Higher concentrations and elevated temperatures can result in etching and attack evidenced by decomposition.
Alkalis	LR	Generally compatible at low concentration and room temperature. Higher concentrations and elevated temperatures can result in etching and attack evidenced by decomposition.
Aliphatic Hydrocarbons	R	Generally compatible.
Amines	NR	Surface crystallization and chemical attack.
Aromatic Hydrocarbons	NR	Partial solvents and severe stress cracking agents (i.e. xylene, toluene).
Detergents and Cleaners	LR	Mild soap solutions are generally compatible.
Detergents and Cleaners, with Alkaline Materials	NR	
Esters	NR	Cause severe crystallization. Partial solvents.
Greases and Oils	LR	Pure petroleum types generally compatible.
Halogenerated Hydrocarbons	NR	Solvents.
Ketones	NR	Cause severe crystallization and stress cracking. Partial solvents.
Silicone Oil and Greases	LR	Generally compatible up to 85°C (185°F).
Silicone Oil and Greases, with Alkaline Materials	NR	

KEY:

- R - Resistant
- LR - Limited Resistance
- NR - Not Resistant

Notes:

Lexan® is a registered trademark of G.E. General Electric Corp.

Certain combinations of chemical environments, temperature and stress can adversely affect thermoplastic parts made from LEXAN resin. For this reason, lubricants, gaskets, O-rings, cleaning solvents, or any other material which may come in contact with the finished part must be carefully evaluated under end-use conditions for compatibility. You should also follow the use and compatibility recommendations of the manufacturer of any such material.

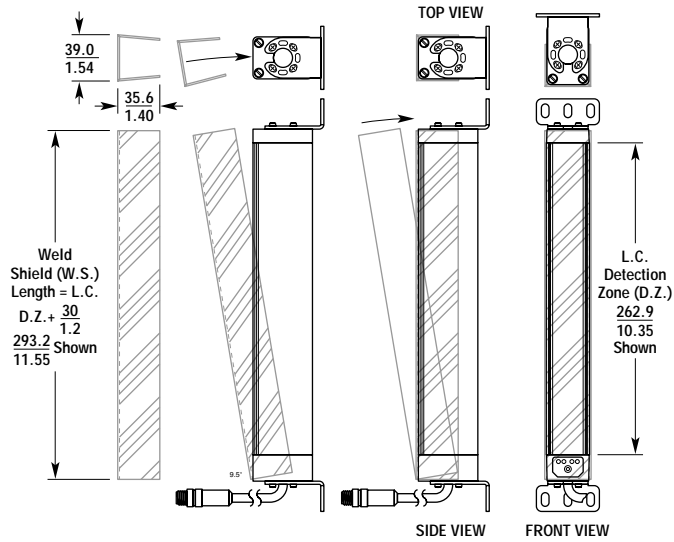
LEXAN resin generally is stable to water, mineral acids and organic acids. Cracking and/or embrittlement may occur if a part molded from LEXAN resin is highly stressed and exposed to hot water or a moist high-temperature environment. As a result, a temperature limit of 60 to 71°C (140 to 160°F) is recommended under these conditions.

■ Weld Slag Protective Shields for MS4600, OF4600 and MC4700 Series (continued)

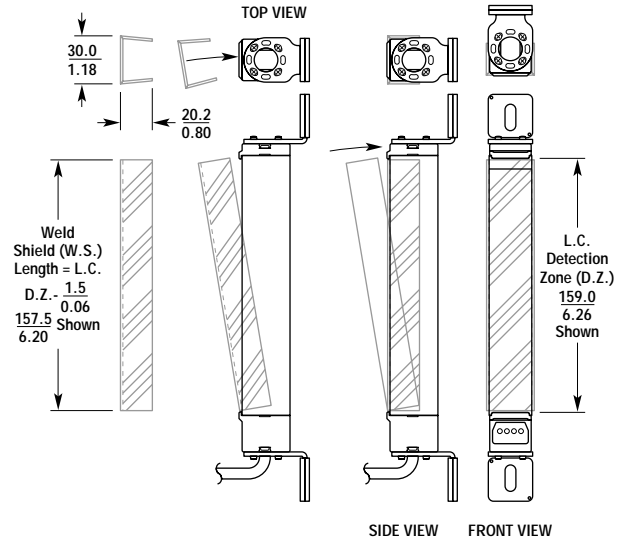
Dimensions—mm/in.

safety light curtains

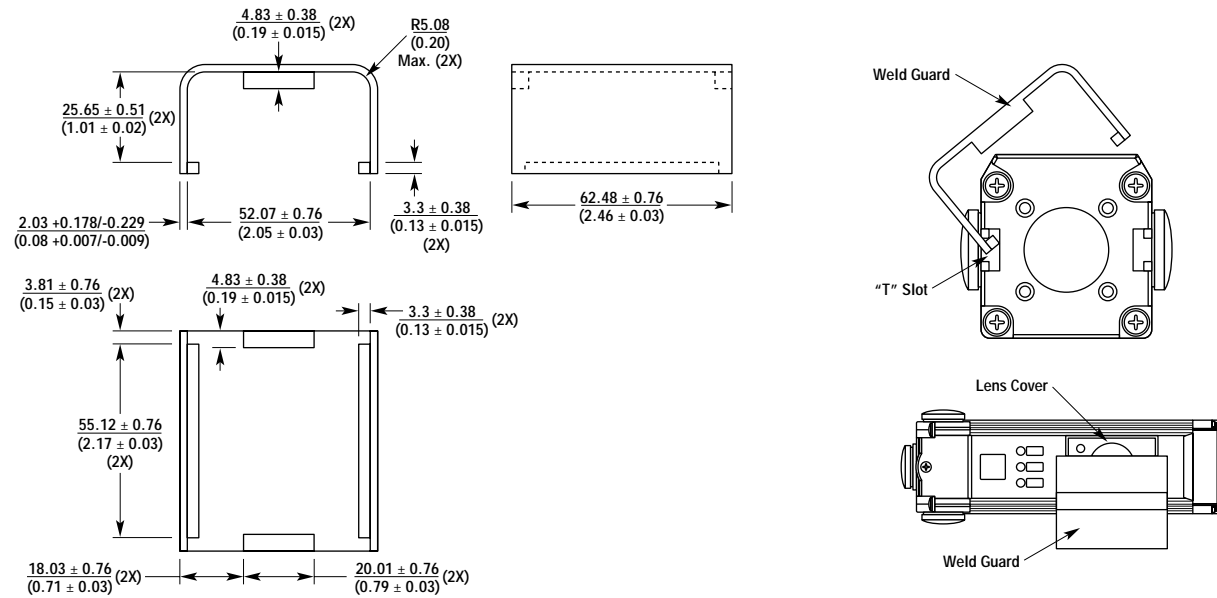
MS4600 Light Curtain (L.C.)



MC4700 Light Curtain (L.C.)



PA4600 Perimeter Access Guarding Device



A Go to the Engineering Guide
For in-depth information on safety standards and use.

Ordering

Lexan Weld Shield Kit for MS4600 and OF4600*

Part Number	Model Number	Description	mm/in.
40424-0010	MS46WS-KT-260	260 mm Kit	293/11.54
40424-0020	MS46WS-KT-350	350 mm Kit	380/14.96
40424-0030	MS46WS-KT-435	435 mm Kit	467/18.39
40424-0040	MS46WS-KT-520	520 mm Kit	554/21.81
40424-0050	MS46WS-KT-610	610 mm Kit	641/25.24
40424-0060	MS46WS-KT-700	700 mm Kit	728/28.66
40424-0070	MS46WS-KT-785	785 mm Kit	815/32.09
40424-0080	MS46WS-KT-870	870 mm Kit	902/35.51
40424-0090	MS46WS-KT-955	955 mm Kit	989/38.94
40424-0100	MS46WS-KT-1045	1045 mm Kit	1075/42.32
40424-0110	MS46WS-KT-1130	1130 mm Kit	1163/45.79
40424-0120	MS46WS-KT-1215	1215 mm Kit	1249/49.17
40424-0130	MS46WS-KT-1305	1305 mm Kit	1336/52.60
40424-0140	MS46WS-KT-1390	1390 mm Kit	1423/56.02
40424-0160	MS46WS-KT-1570	1570 mm Kit	1597/62.87
40424-0180	MS46WS-KT-1745	1745 mm Kit	1771/69.72
40424-0200	MS46WS-KT-1920	1920 mm Kit	1945/76.57
40424-0220	MS46WS-KT-2095	2095 mm Kit	2120/83.46

Lexan Weld Shield Kit for MC4700 (12 mm resolution)*

Part Number	Model Number	Description	mm/in.
40424-4010	MC47WS-KT-100	100 mm Kit	100/3.96
40424-4020	MC47WS-KT-200	200 mm Kit	200/7.89
40424-4030	MC47WS-KT-300	300 mm Kit	300/11.83
40424-4040	MC47WS-KT-400	400 mm Kit	400/15.77
40424-4050	MC47WS-KT-500	500 mm Kit	500/19.70
40424-4060	MC47WS-KT-600	600 mm Kit	600/23.64
40424-4070	MC47WS-KT-700	700 mm Kit	700/27.58
40424-4080	MC47WS-KT-800	800 mm Kit	800/31.51
40424-4090	MC47WS-KT-900	900 mm Kit	900/35.45
40424-4100	MC47WS-KT-1000	1000 mm Kit	1000/39.39
40424-4110	MC47WS-KT-1100	1100 mm Kit	1100/43.33
40424-4120	MC47WS-KT-1200	1200 mm Kit	1200/47.26
40424-4130	MC47WS-KT-1300	1300 mm Kit	1300/51.20
40424-4140	MC47WS-KT-1400	1400 mm Kit	1400/55.14
40424-4150	MC47WS-KT-1500	1500 mm Kit	1500/59.07
40424-4160	MC47WS-KT-1600	1600 mm Kit	1600/63.01

Lexan Weld Shield Kit for MC4700 (14/20/30 mm resolution)*

Part Number	Model Number	Description	mm/in.
40424-3010	MC47WS-KT-150	150 mm Kit	157.48/6.20
40424-3015	MC47WS-KT-225	225 mm Kit	233.43/9.19
40424-3020	MC47WS-KT-301	300 mm Kit	307.59/12.11
40424-3025	MC47WS-KT-375	375 mm Kit	383.54/15.10
40424-3030	MC47WS-KT-450	450 mm Kit	457.45/18.01
40424-3035	MC47WS-KT-525	525 mm Kit	533.40/21.00
40424-3040	MC47WS-KT-601	600 mm Kit	607.57/23.92
40424-3045	MC47WS-KT-675	675 mm Kit	683.51/26.91
40424-3050	MC47WS-KT-750	750 mm Kit	757.43/29.82
40424-3055	MC47WS-KT-825	825 mm Kit	833.37/32.81
40424-3060	MC47WS-KT-901	900 mm Kit	907.54/35.73
40424-3065	MC47WS-KT-975	975 mm Kit	983.49/38.72
40424-3070	MC47WS-KT-1050	1050 mm Kit	1057.40/41.63
40424-3075	MC47WS-KT-1125	1125 mm Kit	1133.60/44.63
40424-3080	MC47WS-KT-1201	1200 mm Kit	1207.52/47.54
40424-3085	MC47WS-KT-1275	1275 mm Kit	1283.46/50.53
40424-3090	MC47WS-KT-1350	1350 mm Kit	1357.38/53.44
40424-3095	MC47WS-KT-1425	1425 mm Kit	1433.58/56.44
40424-3100	MC47WS-KT-1501	1500 mm Kit	1507.49/59.35
40424-3105	MC47WS-KT-1575	1575 mm Kit	1583.44/62.34
40424-3110	MC47WS-KT-1650	1650 mm Kit	1657.35/65.25
40424-3115	MC47WS-KT-1725	1725 mm Kit	1733.55/68.25
40424-3120	MC47WS-KT-1800	1800 mm Kit	1807.46/71.16
40424-3130	MC47WS-KT-1950	1950 mm Kit	1957.58/77.07
40424-3140	MC47WS-KT-2100	2100 mm Kit	2107.44/82.97

Lexan Weld Shield Kit for PA4600

Part Number	Model Number	Description	mm/in.
40317-0010	PA46WS-1	Qty. 1 Kit	62.48/2.46
40317-0020	PA46WS-2	Qty. 2 Kit	62.48/2.46
40317-0040	PA46WS-4	Qty. 4 Kit	62.48/2.46
40317-0060	PA46WS-6	Qty. 6 Kit	62.48/2.46
40317-0080	PA46WS-8	Qty. 8 Kit	62.48/2.46
40317-0100	PA46WS-10	Qty. 10 Kit	62.48/2.46
40317-0120	PA46WS-12	Qty. 12 Kit	62.48/2.46

*MS4600, OF4600 and MC4700 Weld shield kits consists of one pair.

■ **MG4600 Cables**

Below are spare cables for the MegaSafe MG4600.

Part Number	Model Number	Description
60600-0030	MG46RO-CBL-PWRMINI03	3 m mini power cable
60600-0100	MG46RO-CBL-PWRMINI10	10 m mini power cable
60600-0150	MG46RO-CBL-PWRMINI15	15 m mini power cable
60600-0300	MG46RO-CBL-PWRMINI30	30 m mini power cable
60601-0030	MG46RO-CBL-PWRMICRO03	3 m micro power cable
60601-0100	MG46RO-CBL-PWRMICRO10	10 m micro power cable
60601-0150	MG46RO-CBL-PWRMICRO15	15 m micro power cable
60601-0300	MG46RO-CBL-PWRMICRO30	30 m micro power cable
60602-0030	MG46RO-CBL-RLYMINI03	3 m mini relay cable
60602-0100	MG46RO-CBL-RLYMINI10	10 m mini relay cable
60602-0150	MG46RO-CBL-RLYMINI15	15 m mini relay cable
60602-0300	MG46RO-CBL-RLYMINI30	30 m mini relay cable
60603-0030	MG46RO-CBL-RLYMICRO03	3 m micro relay cable
60603-0100	MG46RO-CBL-RLYMICRO10	10 m micro relay cable
60603-0150	MG46RO-CBL-RLYMICRO15	15 m micro relay cable
60603-0300	MG46RO-CBL-RLYMICRO30	30 m micro relay cable
60604-0030	MG46RO-CBL-AUX03	3 m auxiliary relay cable
60604-0100	MG46RO-CBL-AUX10	10 m auxiliary relay cable
60604-0150	MG46RO-CBL-AUX15	15 m auxiliary relay cable
60604-0300	MG46RO-CBL-AUX30	30 m auxiliary relay cable
60605-0030	MG46RO-CBL-CTL03	3 m control cable
60605-0100	MG46RO-CBL-CTL10	10 m control cable
60605-0150	MG46RO-CBL-CTL15	15 m control cable
60605-0300	MG46RO-CBL-CTL30	30 m control cable

■ **Double-Ended Cables for MS4600 and OF4600**

These cables contain quick disconnects on both ends for use in panel mounting applications or as extension cables.

Model Number	Description
RECEIVER	
60594-0010	Double-ended, quick disconnect, 1 m (3.28 ft.), Receiver
60594-0050	Double-ended, quick disconnect, 5 m (16.4 ft.), Receiver
60594-0100	Double-ended, quick disconnect, 10 m (32.8 ft.), Receiver
60594-0150	Double-ended, quick disconnect, 15 m (49.2 ft.), Receiver
60594-0250	Double-ended, quick disconnect, 25 m (82.0 ft.), Receiver
60594-0300	Double-ended, quick disconnect, 30 m (98.4 ft.), Receiver

A **Go to the Engineering Guide**
For in-depth information on safety standards and use.



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China Tel. +86-21-5836-7708
Singapore Tel. +65-648-44-001



For the Latest Information
On the Internet: www.sti.com
E-mail: sales@sti.com

STANDARD (NON-MTS) TRANSMITTER

60598-0010	Standard double-ended quick disconnect, 1 m (3.28 ft.), Transmitter
60598-0050	Standard double-ended quick disconnect, 5 m (16.4 ft.), Transmitter
60598-0100	Standard double-ended quick disconnect, 10 m (32.8 ft.), Transmitter
60598-0150	Standard double-ended quick disconnect, 15 m (49.2 ft.), Transmitter
60598-0250	Standard double-ended quick disconnect, 25 m (82.0 ft.), Transmitter
60598-0300	Standard double-ended quick disconnect, 30 m (98.4 ft.), Transmitter

MTS VERSION TRANSMITTER

60595-0010	MTS Version, double-ended quick disconnect, 1 m (3.28 ft.), Transmitter
60595-0050	MTS Version, double-ended quick disconnect, 5 m (16.5 ft.), Transmitter
60595-0100	MTS Version, double-ended quick disconnect, 10 m (32.8 ft.), Transmitter
60595-0150	MTS Version, double-ended quick disconnect, 15 m (49.2 ft.), Transmitter
60595-0250	MTS Version, double-ended quick disconnect, 25 m (82.0 ft.), Transmitter
60595-0300	MTS Version, double-ended quick disconnect, 30 m (98.4 ft.), Transmitter

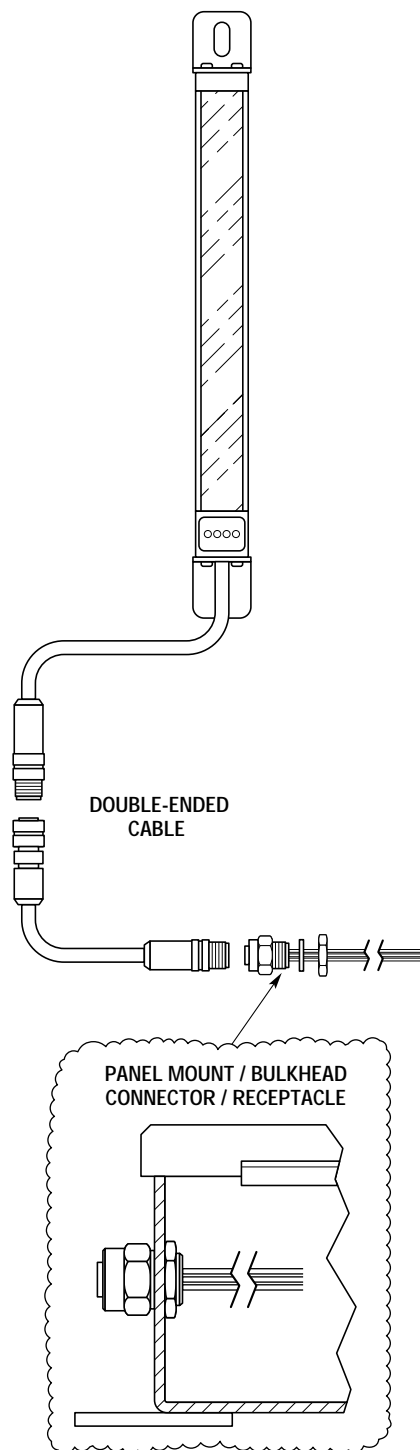
PANEL MOUNT/BULKHEAD CONNECTORS

60593	Receiver Connector, 91.44 cm (36 in.) Leads
60597	Transmitter Connector, 91.44 cm (36 in.) Leads
60592	Transmitter with MTS Connector, 91.44 cm (36 in.) Leads

■ Double-Ended Cables for the 4700 Series

These cables contain quick disconnects on both ends for use in panel mounting applications or as extension cables.

Model Number	Description
RECEIVER	
60624-1010	Double-ended, quick disconnect, 1 m (3.28 ft.), Receiver
60624-1050	Double-ended, quick disconnect, 5 m (16.4 ft.), Receiver
60624-1100	Double-ended, quick disconnect, 10 m (32.8 ft.), Receiver
60624-1150	Double-ended, quick disconnect, 15 m (49.2 ft.), Receiver
60624-1250	Double-ended, quick disconnect, 25 m (82.0 ft.), Receiver
60624-1300	Double-ended, quick disconnect, 30 m (98.4 ft.), Receiver
TRANSMITTER	
60623-0010	Double-ended, quick disconnect, 1 m (3.28 ft.), Transmitter
60623-0050	Double-ended, quick disconnect, 5 m (16.4 ft.), Transmitter
60623-0100	Double-ended, quick disconnect, 10 m (32.8 ft.), Transmitter
60623-0150	Double-ended, quick disconnect, 15 m (49.2 ft.), Transmitter
60623-0250	Double-ended, quick disconnect, 25 m (82.0 ft.), Transmitter
60623-0300	Double-ended, quick disconnect, 30 m (98.4 ft.), Transmitter
PANEL MOUNT/BULKHEAD CONNECTORS	
19102-0010	Receiver Connector, 91.44 cm (36 in.) Leads
19103-0010	Transmitter Connector, 91.44 cm (36 in.) Leads



■ **IP67 Enclosure for MS4600 and OF4600 Series**
For Mounting the Safety Light Curtain in Wash-down Applications

- Available in the full range of sizes — 260 to 2095 mm (10.4 to 82.4 in.)
- Reduces down time and increases the life of the light curtain
- Resistant to many chemicals and compounds (see tables on subsequent pages)
- Improved mounting system
- Reinforced stainless steel brackets

The IP67 Enclosure is designed for washdown applications. The enclosure is constructed with an acrylic tube. The brackets are made of stainless steel. The radial seal prevents fluids from coming in contact with the safety light curtain.

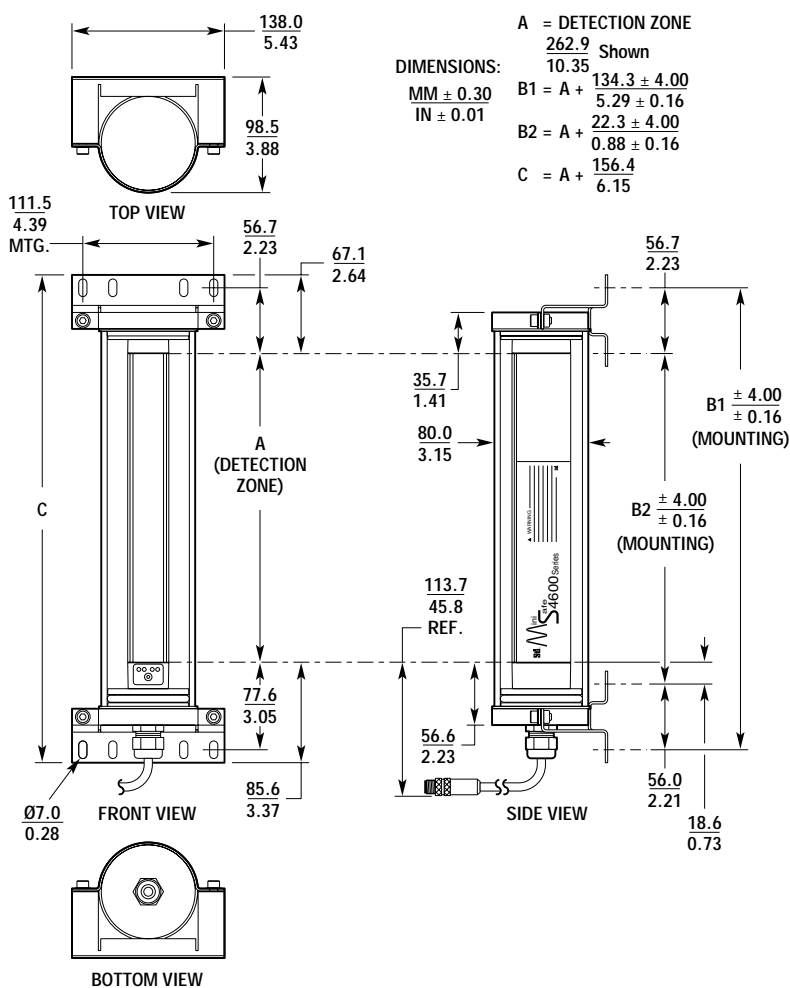
Operating characteristics of the 4600 are affected by the enclosure. The range is reduced by 10% and the effective aperture angle changes to less than $\pm 3^\circ$.

The enclosures are available in the full range of sizes from 260 to 2095 mm (10.4 to 82.4 in.). Note: These enclosures will only fit the Q1 version of the 4600 series.



A **Go to the Engineering Guide**
 For in-depth information on safety standards and use.

Dimensions—mm/in.



D
 safety light curtains

IP67 Models	MS4600 Models	A mm/in.
MS46-IP67-260	MS46-X/R-260- 14/20	262.9/10.35
MS46-IP67-350	MS46-X/R-350- 14/20/30	350.0/13.78
MS46-IP67-435	MS46-X/R-435- 14/20	436.9/17.20
MS46-IP67-520	MS46-X/R-520- 14/20/30	523.8/20.62
MS46-IP67-610	MS46-X/R-610- 14/20	610.9/24.05
MS46-IP67-700	MS46-X/R-700- 14/20/30/50*	697.7/27.47
MS46-IP67-785	MS46-X/R-785- 14/20	784.6/30.89
MS46-IP67-870	MS46-X/R-870- 14/20/30	871.7/34.32
MS46-IP67-955	MS46-X/R-955- 14/20	958.6/37.74
MS46-IP67-1045	MS46-X/R-1045- 14/20/30/50*	1045.5/41.16

IP67 Models	MS4600 Models	A mm/in.
MS46-IP67-1130	MS46-X/R-1130- 14/20	1132.8/44.60
MS46-IP67-1215	MS46-X/R-1215- 14/20/30	1219.5/48.01
MS46-IP67-1305	MS46-X/R-1305- 14/20	1306.3/51.43
MS46-IP67-1390	MS46-X/R-1390- 14/20/30/50*	1393.4/54.86
MS46-IP67-1570	MS46-X/R-1570- 30	1480.6/58.29
MS46-IP67-1745	MS46-X/R-1745- 30/50*	1741.4/68.56
MS46-IP67-1920	MS46-X/R-1920- 30	1915.4/75.41
MS46-IP67-2095	MS46-X/R-2095- 30/50*	2089.7/82.27

*Models with 50 mm resolution are OF46-X/R- (OPTOFENCE).

■ IP67 Enclosure for MS4600 and OF4600 Series (continued)

Chemical Resistance of Acrylic Tube

KEY:

- R - Resistant
- LR - Limited Resistance
- NR - Not Resistant

D

safety light curtains

PAINT	
Acrylic paints and lacquers	LR
Aromatic-free hydrocarbons	R
Nitrocellulose	NR
Oil paints, pure	R
Thinners, general	NR
CHEMICAL PROCESS BATHS	
Electroplating baths	R
Photographic baths	R
BUILDING MATERIALS AND PROTECTIVE AGENTS FOR BUILDINGS	
Bituminous emulsion	NR
Cement	R
Hot bitumen	LR
Mortar	R
Plaster of paris	R
Red lead	R
CHEMICALS, SOLVENTS, ETC.	
Acetic acid, glacial	NR
Acetic acid, to 25%	LR
Acetone	NR
Alum	R
Aluminium chloride	R
Aluminium oxalate	R
Aluminium sulphate	R
Ammonia, aqueous solution	R
Ammonium sulphate	R
Amyl acetate	NR
Aniline	NR
Arsenic	R
Arsenic acid	R
Battery acid	R
Benzaldehyde	NR
Benzene	NR
Bromine	NR
Butanol	LR
Butyl lactate	NR

Butyric acid, to 5%	R
Calcium chloride	R
Calcium hypochlorite	R
Carbon disulfide	NR
Carbon tetrachloride	NR
Chlorinated hydrocarbons	NR
Chlorine, liquid	NR
Chlorine, water	LR
Chloroethyl acetate	NR
Chlorophenol	NR
Chromic acid	LR
Citric acid, to 20%	R
Copper sulphate	R
Cresol	NR
Cyclohexane	R
Diacetone alcohol	NR
Diamyl phthalate	LR
Dibutyl phthalate	NR
Diethylene glycol	R
Dioxan	NR
Ether	NR
Ethyl acetate	NR
Ethyl alcohol, absolute	NR
Ethyl alcohol, to 30%	LR
Ethyl bromide	NR
Ethyl butyrate	NR
Ethylene bromide	NR
Ferric chloride	R
Ferrous chloride	R
Ferrous sulphate	R
Formic acid, to 2%	R
Formic acid, to 40%	LR
Glycerol	R
Glycol	R
Heptane	R
Hexane	R
Hydrochloric acid	R
Hydrogen peroxide, over 40%	LR
Hydrogen peroxide, to 40%	R
Iodine	R
Isopropyl alcohol, to 50%	LR
Lactic acid, to 80%	LR

Magnesium chloride	R
Magnesium sulphate	R
Manganese sulphate	R
Mercury	R
Methanol, absolute	NR
Methanol, to 30%	LR
Methyl ethyl ketone	NR
Methylated spirits	NR
Milk of lime	R
Monobromonaphthalene	R
Motor fuel benzene-free	R
Motor fuel, with benzene	NR
Nickel sulphate	R
Nitric acid, to 20%	R
Nitric acid, 20 - 70%	LR
Nitric acid, over 70%	NR
Oxalic acid	R
Paraffin	LR
Perchloroethylene	NR
Petroleum ether	R
Phenols	NR
Phosphoric acid, to 10%	R
Phosphorus trichloride	NR
Phosphorus, yellow	NR
Picric acid, 1% in water	R
Potassium bichromate	R
Potassium carbonate	R
Potassium chloride	R
Potassium cyanide	R
Potassium hydroxide	R
Potassium nitrate	R
Pottassium permanganate	R
Silicon tetrachloride	NR
Silver nitrate	R
Soap solution	R
Soda	R
Sodium bisulphite	R
Sodium carbonate	R
Sodium chlorate	R
Sodium chloride	R
Sodium hydroxide	R
Sodium hypochlorite	R



Chemical Resistance of Acrylic Tube (continued)

Sodium sulphate	R	PVC, plasticized	NR	Glycerol	R
Sodium sulphide	R	Rubber	R	Hair setting lotion	R
Stearic acid	R	Rubber, containing plasticizer	NR	Nail varnish	NR
Sulphur	R	FOODSTUFFS, SPICES		Nail varnish remover	NR
Sulphur dioxide, liquid	NR	Aniseed, bay, nutmeg	R	Ointments	R
Sulphuric acid, to 30%	R	Cloves	NR	Peat water	R
Sulphurous acid, conc	LR	Honey, pure	R	Sea water	R
Sulphurous acid, to 5%	R	Ice cream	R	Soaps	R
Sulphuryl chloride	R	Marinades	R	Sprays	LR
Tartaric acid, to 50%	R	Meat and fish	R	CLEANING AGENTS	
Thionyl chloride	NR	Pepper, cinnamon, onions	R	Acids, see under chemicals	
Tin chloride	R	Salt	R	Alcohol, absolute	NR
Toluene	NR	GASES AND VAPORS		Alcohol, to 30%	R
Triethylamine	R	Ammonia	R	Alkalis, see under chemicals	
Trichloroacetic acid	NR	Bromine vapor (dry)	LR	Ammonia	R
Tricresyl phosphate	R	Carbon dioxide	R	Aqueous hypochlorite solution	R
Turpentine	LR	Carbon monoxide	R	Carbon tetrachloride	NR
Turpentine substitute	LR	Chloride vapor (dry)	LR	Methylated spirits	NR
Urea, to 20%	R	Exhaust gases, containing HCl	R	Parafin	LR
Xylene	NR	Exhaust gases, containing HF	R	Perchloroethylene	NR
Zinc sulphate, aqueous	R	Exhaust gases, containing		Petrol, pure	R
Zinc sulphate, solid	R	Sulphuric acid	R	Petrol mixture, containing	
DISINFECTANTS		Hydrogen sulphide	R	benzene	NR
Bleaching powder	R	Methane	R	Petroleum ether	R
Carbolic acid	NR	Nitric oxide	R	Soap solution	R
Hydrogen peroxide, to 40%	R	Nitrogen peroxide	R	Soda solution	R
Hydrogen peroxide, over 40%	LR	Oxygen	R	Solvent stain removers	NR
Iodine tincture, 5%	NR	Ozone	R	Trichloroethylene	NR
Lugol solution	R	Sulphur dioxide (dry)	R	Turpentine	LR
Mercuric chloride	R	Natural Gas (Butane)	R	Turpentine substitute	LR
Surgical spirit	NR	FREON TG*		PEST CONTROL AGENTS	
GREASES, OILS, WAXES		trichlorotrifluoroethane	NR	Aqueous solutions of pesticides	LR
Animal	R	FREON TF*		Stable spray-new	R
Mineral	R	trichlorotrifluoroethane	R	Sprays (for direct spraying)	LR
Silicone oil	LR	BEVERAGES, etc.		PROTECTIVE (strippable) COATINGS	
Vegetable	LR	Beer, wine	R	Sign Strip®** strippable masking	LR
PLASTICS		Camomile extract	R	MISCELLANEOUS	
Foams	R	Chocolate	R	Urine	R
Foams, containing plasticizer	NR	Fruit juice, milk, coffee	R		
Polyamide	R	Spirits, to 30%	R		
Polyethylene	R	Vinegar	R		
PVC	R	Water, mineral waters	R		

* Trademark of E.I. duPont deNemours & Company, Inc.

** Trademark of Spraylat Corp., Mt. Vernon, NY

D

safety light curtains



Custom Modifications

For Safety Light Curtains

safety light curtains

Custom Modifications

STI offers a wide range of safety light curtains. The correct curtain for your application is probably in this engineering guide. If it isn't, contact our engineers to discuss your requirements. STI has an established reputation for creating custom modifications of standard products. Some examples are highlighted below.

ESD-safe Modification

Versions of several STI safety light curtains are available for use in areas where it is important to dramatically reduce electrostatic discharge. The curtains have been tested to the standards of the EOS/ESD associations. Triboelectrification and static charge are well within the required limits. Consult STI for test results.

Film-safe Safety Light Curtains

When used in a photographic film production facility, the infrared light normally emitted by safety light curtains will fog the film and spoil production. STI has designed safety light curtains with no visible indicators and "film friendly" infrared light using 940 nanometer infrared emitters.

Controller Quick-disconnect

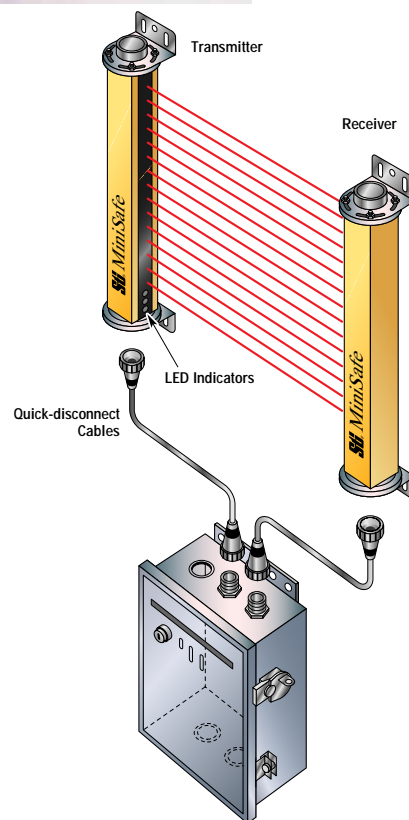
Certain applications call for safety light curtains to have double-ended quick-disconnect cables. This custom modification is available from STI. Quick-disconnect cables are available for transmitter, receiver, input power and relay output connections.

ESD-safe Mirrors

Versions of STI mirrors for light curtains are available for use in areas where it is important to dramatically reduce electrostatic discharge. The mirrors have been tested to the standards of the EOS/ESD associations. Triboelectrification and static charge are well within the required limits. Refer to "Narrow Mirrors—Stainless Steel" in the accessory section for more details.

LCC Series Controller with Remote Channel Select

Safety light curtain systems based on the LCC series controller can be supplied with an option which allows exact channel select to be programmed and operating modes to be programmed remotely using interface switches supplied by the user. A remote start/reset function is included as part of this feature.



Exact Channel Select Pattern Selection

The Model LCM-3 offers a unique feature of the ability to store up to 8 exact channel select patterns. These patterns can be remotely selected via 3 inputs located on the LCM-3. The LCM-3 with this feature is not CE certified. Please consult the factory for more details.

A **Go to the Engineering Guide**
For in-depth information on safety standards and use.