

Accessories

And Spare Parts for Light Curtains



safety light curtains

- Mirrors
- Stands
- Mounting Kits
- Shock Mount Kits
- Key Switch Assembly
- Cable Adapter Boards
- Laser Alignment Tool
- 45 Mirror Bracket
- Power Supply

Spare Parts Available

- Fuse and Relay Kits
- Test Object

■ 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-Surface Glass	12%
Rear-Surface Glass	19%
Polished Stainless Steel	22%

Mirrors 48 inches and shorter are built with front-surface glass. Mirrors above 48 inches in length are manufactured with rear-surface glass. 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 two inch (51 mm) 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

E **Go to the Engineering Guide** in this catalog for in-depth information on safety standards and use of this product.

are available in 4 inch (102 mm) height increments up to 48 inches (1219 mm). Wide mirrors have 4.25 inch (108 mm) wide reflective surfaces and ease alignment on applications with a large

perimeter and where there are no space limitations. Wide mirrors are available in sizes that correspond to all STI light curtain sizes from 4 to 96 inches (102 to 2440 mm).

Net range using mirrors (percentage of maximum range)

Material	Surface	No. of Mirrors Used			
		1	2	3	4
Glass	Front	88%	77%	68%	60%
Glass	Rear	81%	66%	53%	43%
Stainless Steel		78%	61%	47%	37%

All mirrors come complete with hardware for mounting to optional STI-supplied stands. Order by model number.

Length	Model Number	Weight lb./kg	Model Number	Weight lb./kg	Model Number
	Narrow Glass		Wide Glass		Wide Stainless Steel*
4 inches (102 mm)	MIRN-04FG	1.74/0.8	MIRW-04FG	2.3/1.0	MIRW-04SS
6 inches (152 mm)			MIRW-06FG	2.8/1.3	MIRW-06SS
8 inches (203 mm)	MIRN-08FG	2.36/1.0	MIRW-08FG	3.3/1.5	MIRW-08SS
12 inches (305 mm)	MIRN-12FG	2.98/1.4	MIRW-12FG	4.2/1.9	MIRW-12SS
16 inches (406 mm)	MIRN-16FG	3.60/1.6	MIRW-16FG	5.2/2.4	MIRW-16SS
18 inches (457 mm)			MIRW-18FG	5.6/2.5	MIRW-18SS
20 inches (508 mm)	MIRN-20FG	4.22/1.9	MIRW-20FG	6.1/2.8	MIRW-20SS
24 inches (610 mm)	MIRN-24FG	4.84/2.2	MIRW-24FG	7.1/3.2	MIRW-24SS
28 inches (711 mm)	MIRN-28FG	5.46/2.5	MIRW-28FG	8.1/3.7	MIRW-28SS
30 inches (762 mm)			MIRW-30FG	8.5/3.8	MIRW-30SS
32 inches (813 mm)	MIRN-32FG	6.08/2.8	MIRW-32FG	9.0/4.0	MIRW-32SS
36 inches (914 mm)	MIRN-36FG	6.70/3.0	MIRW-36FG	9.9/4.5	MIRW-36SS
40 inches (1016 mm)	MIRN-40FG	7.32/3.3	MIRW-40FG	10.9/5.0	MIRW-40SS
42 inches (1067 mm)			MIRW-42FG	11.4/5.2	MIRW-42SS
44 inches (1118 mm)	MIRN-44FG	7.94/3.6	MIRW-44FG	11.9/5.4	MIRW-44SS
48 inches (1219 mm)	MIRN-48FG	8.56/3.9	MIRW-48FG	12.9/5.9	MIRW-48SS
52 inches (1321 mm)			MIRW-52RG	13.8/6.3	MIRW-52SS
54 inches (1372 mm)			MIRW-54RG	14.3/6.5	MIRW-54SS
56 inches (1422mm)			MIRW-56RG	14.8/6.7	MIRW-56SS
60 inches (1524mm)			MIRW-60RG	15.8/7.2	MIRW-60SS
64 inches (1626mm)			MIRW-64RG	16.8/7.6	MIRW-64SS
72 inches (1830mm)			MIRW-72RG	18.6/8.5	MIRW-72SS
84 inches (2134mm)			MIRW-84RG	21.5/9.8	MIRW-84SS
96 inches (2440 mm)			MIRW-96RG	24.3/11.0	MIRW-96SS

* Consult factory for weights.



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■ Dimensions

Narrow Mirror Package

Model: MIRN-(XX)(OM)

XX = Length in inches

OM = Offered material

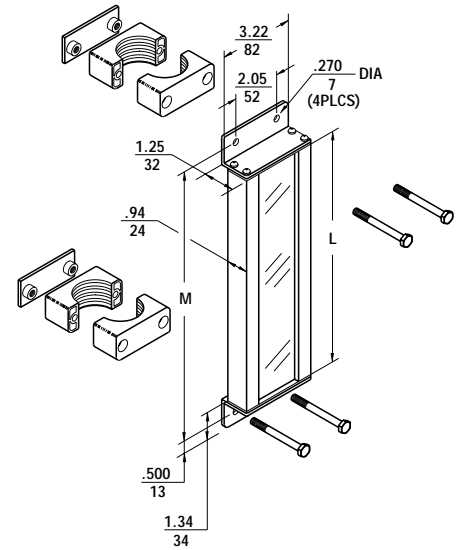
Narrow Mirror Dimensions

XX	Dimension L		Dimension M		Offered Material
	Inches	mm	Inches	mm	
-04	6.0	152	7.68	195	FG
-08	10.0	254	11.68	297	FG
-12	14.0	356	15.68	398	FG
-16	18.0	457	19.68	500	FG
-20	22.0	559	23.68	601	FG
-24	26.0	660	27.68	703	FG
-28	30.0	762	31.68	805	FG
-32	34.0	864	35.68	906	FG
-36	38.0	965	39.68	1008	FG
-40	42.0	1067	43.68	1109	FG
-44	46.0	1168	47.68	1211	FG
-48	50.0	1270	51.68	1313	FG



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ACAD FILE: (96)12103A.DWG
NARROW MIRROR PACKAGE



FG = Front surface glass

RG = Rear surface glass

SS = Stainless steel



This drawing is available in CAD format.
Request file no. 96121-0010.

Wide Mirror Package

Model: MIRW-(XX)(OM)

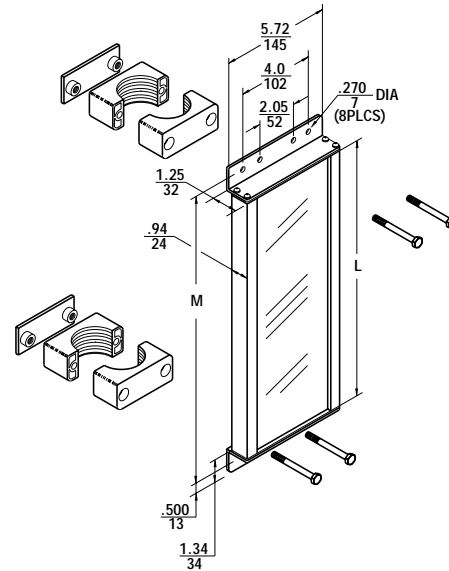
XX = Length in inches

OM = Offered material

Wide Mirror Dimensions

xx	Dimension L		Dimension M		Offered Material
	Inches	mm	Inches	mm	
-04	5.5	140	7.18	182	FG, SS
-06	7.5	191	9.18	233	FG, SS
-08	9.5	241	11.18	284	FG, SS
-12	13.5	343	15.18	386	FG, SS
-16	17.5	445	19.18	487	FG, SS
-18	19.5	495	21.18	538	FG, SS
-20	21.5	546	23.18	589	FG, SS
-24	25.5	648	27.18	690	FG, SS
-28	29.5	749	31.18	792	FG, SS
-30	31.5	800	33.18	843	FG, SS
-32	33.5	851	35.18	894	FG, SS
-36	37.5	953	39.18	995	FG, SS
-40	41.5	1054	43.18	1097	FG, SS
-42	43.5	1105	45.18	1148	FG, SS
-44	45.5	1156	47.18	1198	FG, SS
-48	49.5	1257	51.18	1300	FG, SS
-52	53.5	1359	55.18	1402	RG, SS
-54	55.5	1410	57.18	1452	RG, SS
-56	57.5	1461	59.18	1503	RG, SS
-60	61.5	1562	63.18	1605	RG, SS
-64	65.5	1664	67.18	1706	RG, SS
-72	73.5	1867	75.18	1910	RG, SS
-84	85.5	2172	87.18	2214	RG, SS
-96	97.5	2477	99.18	2519	RG, SS

ACAD FILE: (96)12104A.DWG
WIDE MIRROR PACKAGE



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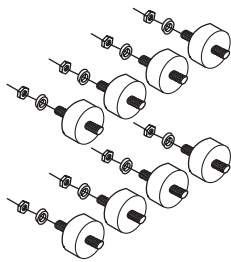
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Mounting Kits

The kits listed here allow one STI transmitter and one STI receiver to be mounted to STI stands. Order by model number.

Model Number	Description
LCMK-1	Mounting kit for MiniSafe MS4300, FlexSafe FS4300.
LCMK-2	Mounting kit for OptoSafe P4100, OptoFence OF4100, MiniSafe MS4400, MiniSafe MS4500, Perimeter Access PA4400 and Perimeter Access PA4500.
LCMK-3	Mounting kit for MicroSafe MC4200 and MicroSafe Flexible MCF4200.
25762-0010	Mirror mounting bracket designed for mounting mirrors close to floor level when using STI mirror stands.

Shock Mount Kits

These kits are used to isolate mirrors from possible sources of vibration. They can also be used to shock-mount controller/power supplies and transmitter/receiver. Eight shock mounts included.

Model Number	Description
SHP4-18	Shock mounts secured with 1/4-20 studs for OptoSafe, OptoFence, Perimeter Access and MiniSafe LR.
SHMS-18	Shock mounts secured with 10-32 studs for MiniSafe and FlexSafe.

45° Mirror Bracket and Mirror

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

Part Number	Description
MIR45	4 inch front-surface glass mirror for use with MIR45BRK
MIR45BKT	Bracket for mounting MIR45 to STI stand at 45° angle.
MIR45ES	Accessories to allow MIR45BKT to be mounted to extruded aluminum framing systems.

Laser Alignment Tool

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

Part Number	Description
BS2LA	Laser alignment tool for use with BeamSafeII.

Terminal Block Adapter Board

When using the Universal controller, this accessory allows the controller end of transmitter and receiver cables to be terminated at terminal blocks rather than with the standard connector. This is useful when cables are being cut to the proper length on the field.

Part Number	Description
TBAB	Terminal Block Adapter Board for Universal controller

E Go to the Engineering Guide in this catalog for in-depth information on safety standards and use of this product.

Power Supply

This DIN-rail mounted, CE marked power supply allows STI products such as the LCC-DN and E-DN controllers, which operate exclusively from 24 VDC to be powered by 115 and 230 VAC. Input: 115 or 230 VAC. Output: 24 VDC, 2.2 amps.

Part Number	Description
42992	24 VDC power supply

Key Switch Assembly

This key switch assembly can be mounted remotely and used to perform the reset function on all STI safety light curtains with guard mode controller. Order by part number.

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

Fuse and Relay Kit

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
FRK-3D	Relay and Fuse Kit for 120VAC Light Curtains. C Controller
FRK-4D	Relay and Fuse Kit for 220VAC Light Curtains. C Controller

Relay Board Assemblies

The Relay Board Assembly contains three force-guided output relays each with fuse protection, and one monitoring relay. All components are installed on a circuit board assembly. The Relay Board Assembly with Mute contains additional circuitry for use with light curtains with Mute Option.

The Relay Board assemblies are for use with D and E series controllers only.

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.



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Test Object

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
42800-0110	Test object, 0.75 in./19.1 mm for MiniSafe 4300, FlexSafe FS4300
42800-0120	Test object, 0.80 in./20.3 mm for MicroSafe MC4200, MicroSafe Flexible MCF4200
42800-0130	Test object, 1.00 in./25.4 mm for MiniSafe 4400, MS4500, FlexSafe FS4400
42800-0140	Test object, 1.25 in./31.8 mm for OptoSafe P4100
42800-0150	Test object, 1.30 in./33.0 mm for MicroSafe with Floating Blanking (1 beam)
42800-0160	Test object, 1.50 in./38.1 mm for MiniSafe MS4400 and MiniSafe MS4500 with Floating Blanking (1 beam).
42800-0170	Test object, 1.80 in./45.7 mm for MicroSafe MS4200, MicroSafe Flexible MCF4200 with Floating Blanking (2 beams)
42800-0180	Test object, 2.00 in./50.8 mm for MiniSafe MS4400, MiniSafe MS4500, Perimeter Access PA4500D with Floating Blanking (2 beams).

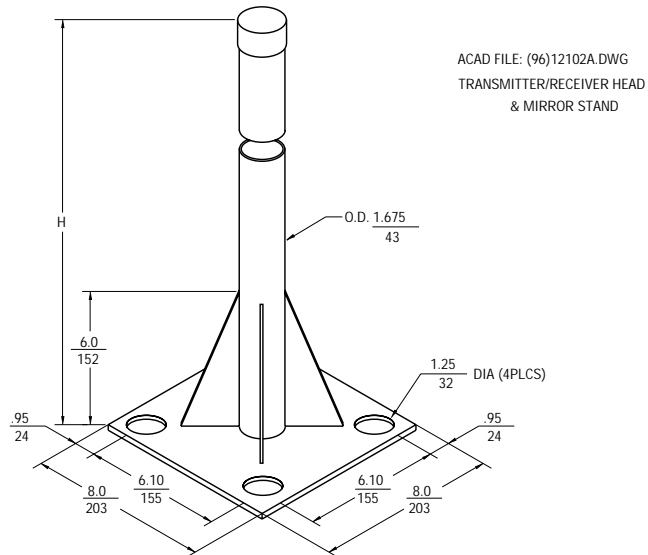
Snubber Kit

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.

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.

Height	Model Number	Weight lb./kg
4 feet (1.2 m)	MIRS-04	19.3/8.8
6 feet (1.8 m)	MIRS-06	24.7/11.2
7 feet (2.1 m)	MIRS-07	27.4/12.5
8 feet (2.4 m)	MIRS-08	30.1/13.7
10 feet (3.1 m)	MIRS-10	35.4/16.1



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