



Shown here with optional quick-disconnect cable kit.



File No. LR90200

## ■ Description

The BeamSafe II is a long-range single-beam safety control designed for perimeter and access guarding. “Diverse redundant” microprocessor design provides safe, control reliable operation.

A BeamSafe II system consists of one transmitter and one receiver. No interconnecting cables or separate control enclosure are required. Mounted on the receiver, four separate visible indicators provide instant information on system clear, blocked or interlocked status as well as signal strength. Additional diagnostic indicators on the receiver provide codes to assist with troubleshooting. Output options include redundant solid-state or force-guided relays located in the receiver.

Immunity to weld flash and ambient light are enhanced by coding the infrared beam. This feature also eliminates interference from other BeamSafe II units installed in close proximity. A tight beam angle reduces problems associated with reflective surfaces. The Beamsafe II’s built-in lens heater is effective in environments where condensation may form on the transmitter or receiver lens.

# BeamSafe® II

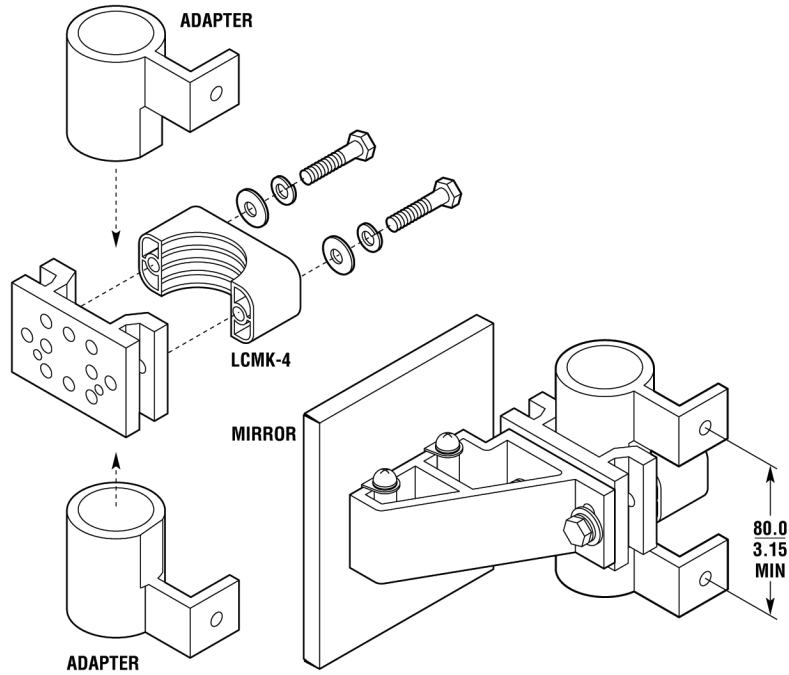
## Long-Range, Single-Beam Safety Control

- 60 m (200 ft.) range
- Four possible transmit codes eliminate crosstalk from multiple units in the same area
- Signal strength indicator and integral “Gun Sight” allow easy installation
- No interconnecting cables required, which speeds long-range installations
- Adjustable mounting brackets allow easy alignment
- Three models available:
  - Relay output with 24 VDC power input
  - Relay output with 85 to 250 VAC power input
  - Solid-state output with 24 VDC power input
- Switch-selected Automatic Start or Start/Restart Interlock operation
- Lens heater
- Designed in accordance with IEC61496, EN954-1 and ANSI B11.19-2003

## ■ Accessories—mm/in. (continued)

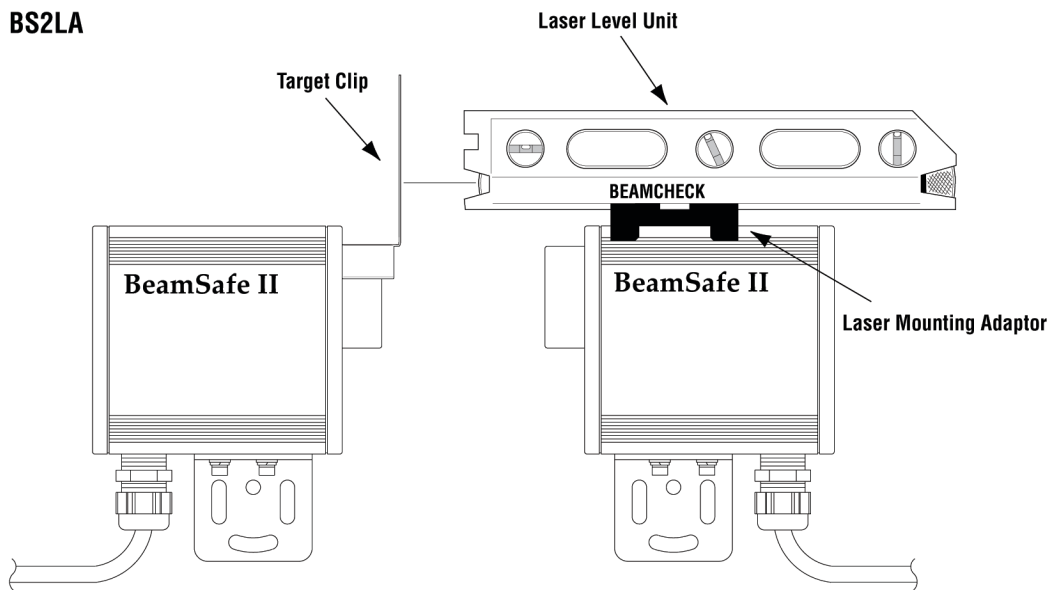
### Adapter Kit

ESBKT (INCLUDES ADAPTERS ONLY)



### Laser Alignment Tool

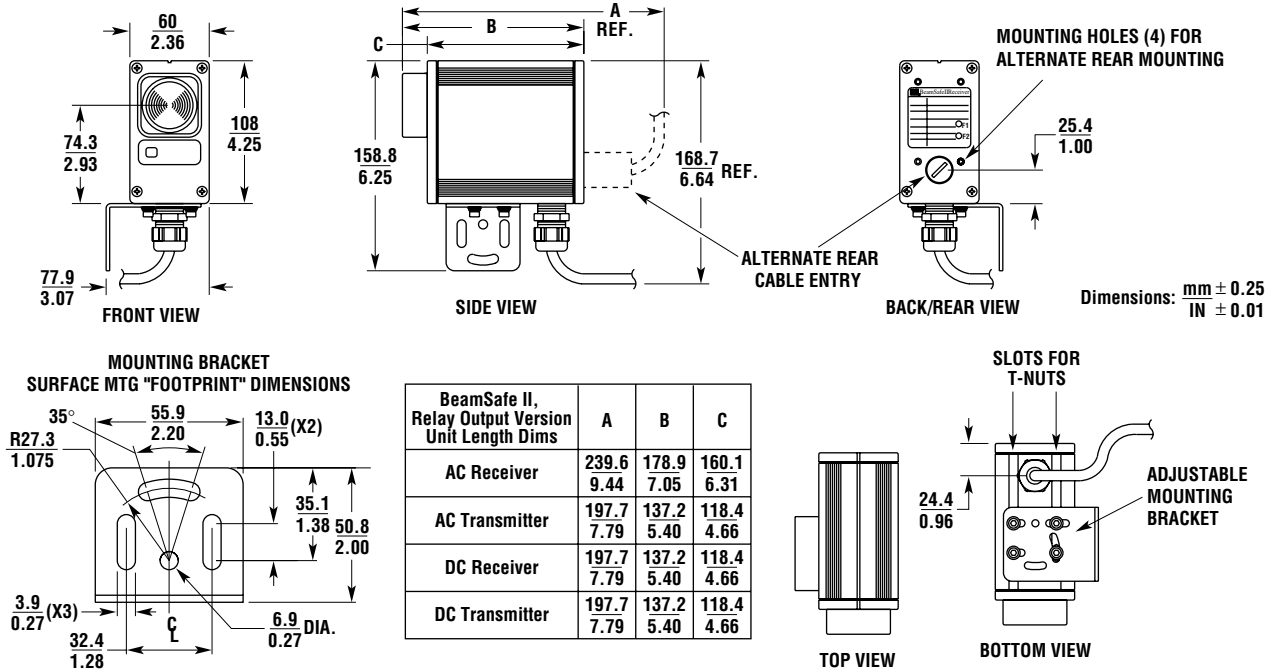
BS2LA



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

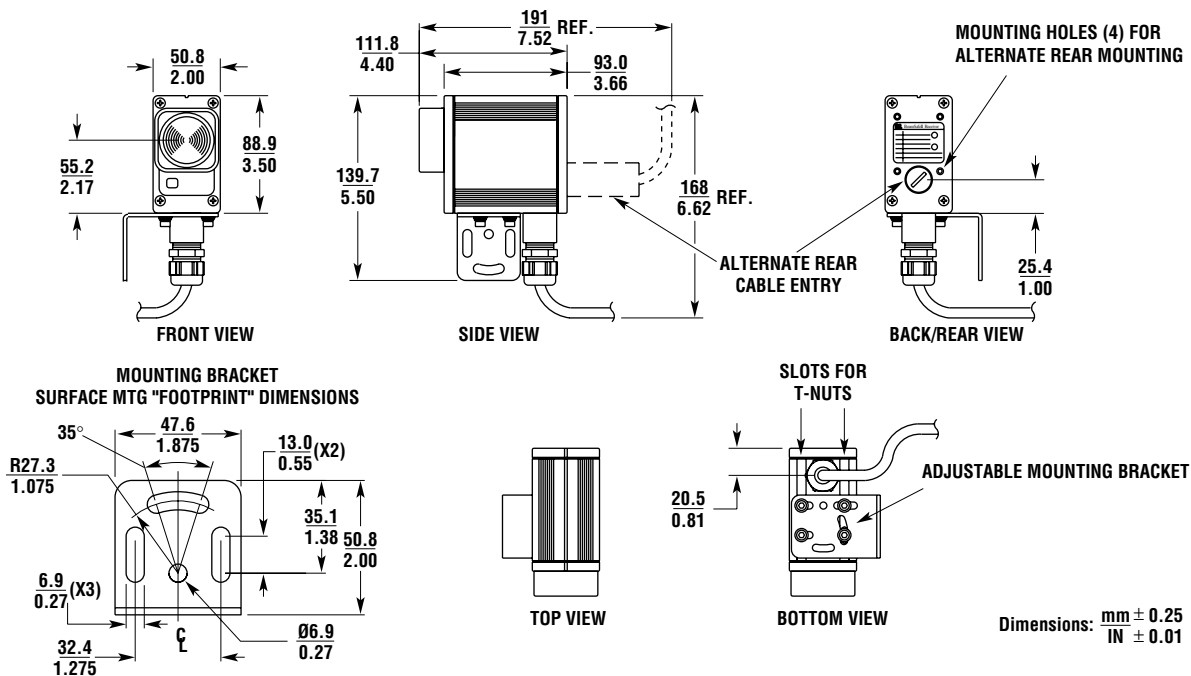
## ■ Dimensions—mm/in.

### BeamSafe II, Relay Output Version



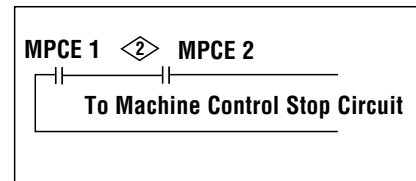
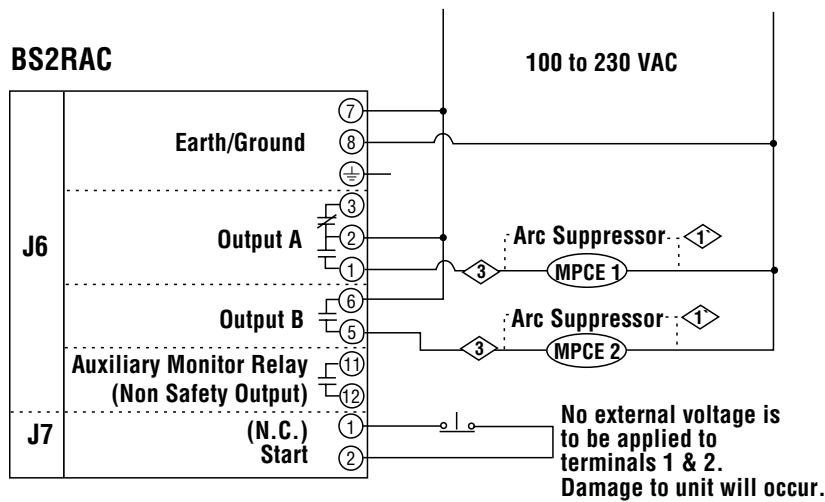
### BeamSafe II, Solid-State Output Version, Transmitter and Receiver

This drawing is available in CAD format at [www.sti.com](http://www.sti.com)



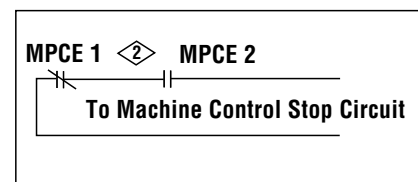
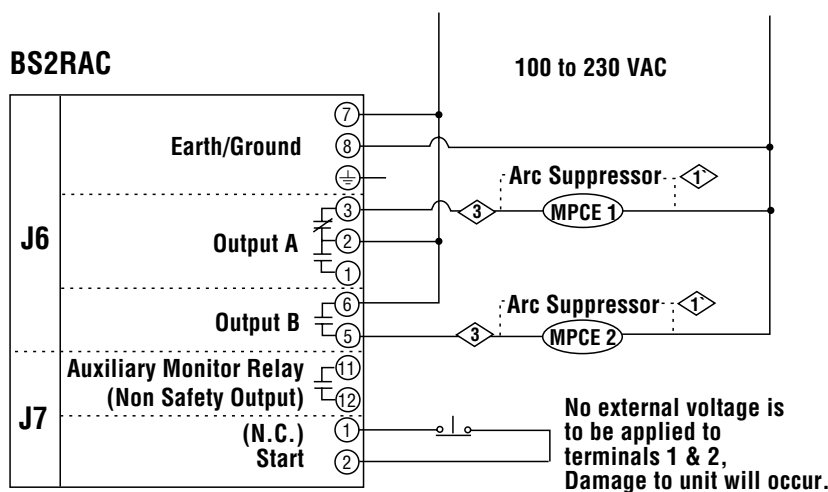
■ Wiring

Two Normally Open Contacts AC Voltage Connections



- ① **WARNING:** Arc suppression devices should only be installed across the coils of the machine control relays. Never install Arc Suppression devices directly across the control output contacts of the BeamSafe. An arc suppression device installed across the contacts may fail with a short circuit and will result in an unsafe condition.
- ② These relay contacts must be force-guided contacts.
- ③ User supplied over current protection, 4A max.

Normally Open/Normally Closed Connection Diagram

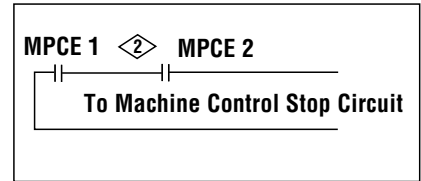
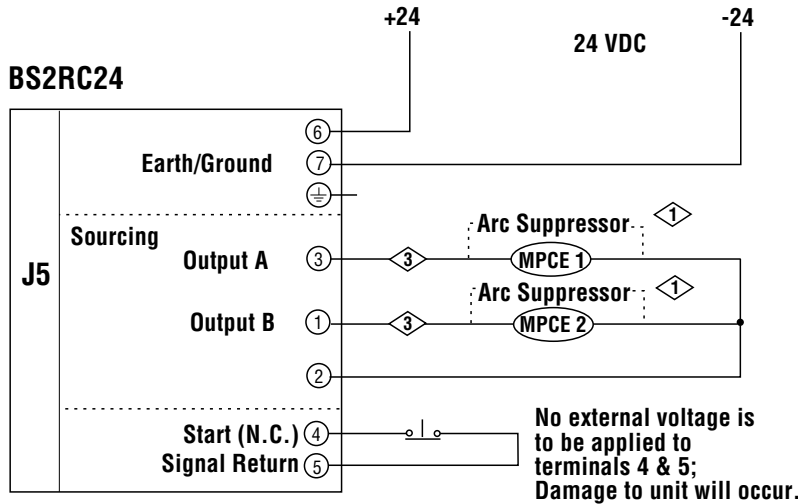


- ① **WARNING:** Arc suppression devices should only be installed across the coils of the machine control relays. Never install Arc Suppression devices directly across the control output contacts of the BeamSafe. An arc suppression device installed across the contacts may fail with a short circuit and will result in an unsafe condition.
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perimeter access guarding

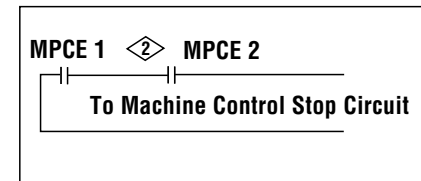
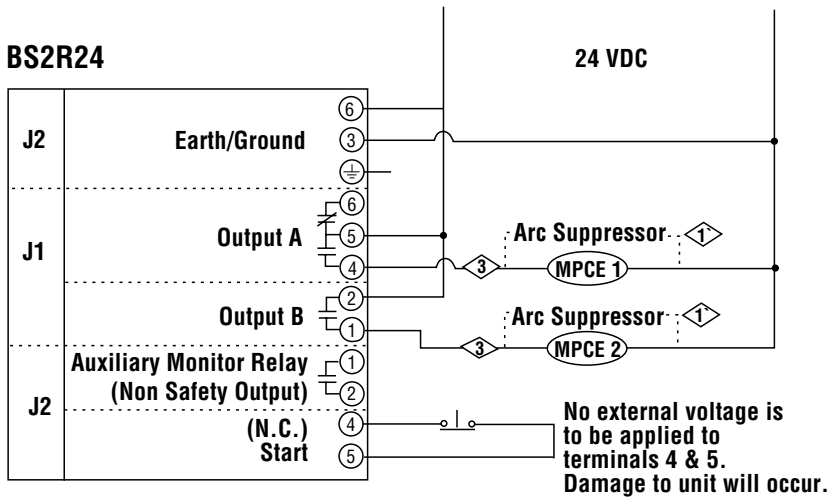
■ **Wiring (continued)**

**Two Normally Open Contacts DC Voltage Connections (Solid-State Output Model)**



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- ② These relay contacts must be force guided contacts.
- ③ If load is less than 50 mA a resistor must be installed across the load.

**Two Normally Open Contacts 24 VDC Voltage Connections**



- ① **WARNING:** Arc suppression devices should only be installed across the coils of the machine control relays. Never install Arc Suppression devices directly across the control output contacts of the BeamSafe. An arc suppression device installed across the contacts may fail with a short circuit and will result in an unsafe condition.
- ② These relay contacts must be force-guided contacts.
- ③ User supplied over current protection, 4A max.

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