



BeamSafe® III-C

Compact Single-Beam Safety Control — 14 m Range

Sensor

- 14 m (45 ft.) range
- Compact size
- Alignment indicator
- Reverse polarity and short circuit protected
- Sensitivity control
- 270° adjustable swivel connector

Controller

- DIN-rail mount controller
- 24 VDC power
- Manual or automatic reset
- Red-Green LEDs flash to indicate error codes
- Indicator LEDs for controller and safety output status
- Designed in accordance with IEC61496, EN954-1 and ANSI B11.19-2003
- Accepts up to two sets of sensors
- Redundant force-guided relay safety outputs
- Dual solid-state auxiliary (non-safety) outputs
- MPCE test inputs

CE

Description

The BeamSafe III is a compact, medium-range, infrared safety control system designed for access guarding. A BeamSafe III system consists of the BS3-C controller combined with the compact BeamSafe III sensors to provide a true, type 4, self-monitoring system.

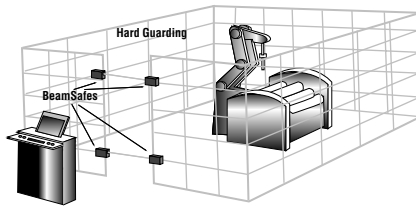
The BS3-C controller allows up to two transmitter-receiver pairs to be connected and provides a common set of redundant, force-guided, safety relay outputs. In addition, two non-safety outputs can be configured to follow the safety outputs or report on the status of independent transmitter receiver pair.

LED indicators, located on the top of the controller, provide diagnostic and status information. Terminals are provided for Machine Primary Control Element (MPCE) monitoring.

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

■ Applications

A BeamSafe III system can provide access and perimeter guarding for robotic systems, cutting machines, revolving machines, conveyor systems, production lines, graphic machinery, and semiconductor equipment. A typical example is shown.



■ Specifications

BS3-C Controller

Supply Voltage: 24 VDC ±20%
Power Consumption: 600 mA with two sets of sensors connected
Enclosure Rating: IP20
Maximum Conductor Area: 2 x 1.5 mm ² with end sleeve, 2 x 2.5 mm ² with solid connectors
Safety Relay Outputs: Two potentially-free N.O. outputs. Each protected with a 4 A fuse (nonreplaceable).
Response Time: <30 mS relays with force-guided contacts
Max. Switching Frequency: 1/s
Max. Switching Voltage: DC 60V, AC 250 V
Max. Switching Current: 2 A
Max. Switching Power: 50 W, 500 VA
Min. Switching Current: 20 mA
Auxiliary (non-safety) Outputs: Two potential-free opto-coupler outputs
Max. Switching Voltage: DC 30 V
Max. Switching Current: 30 mA
Inputs: Two sensors, two manual reset, two automatic reset, two MPCE test
Diagnostics: Two red-green LED
Safety Category: Type 4, self-monitoring system
Requirements: IEC 61496-1, -2; EN 954-1
Operating Temperature: 0 to 55°C (32 to 131°F)
Storage Temperature: -25 to 55°C (-13 to 131°F)
Weight: Approx. 300 g (0.7 lbs.)

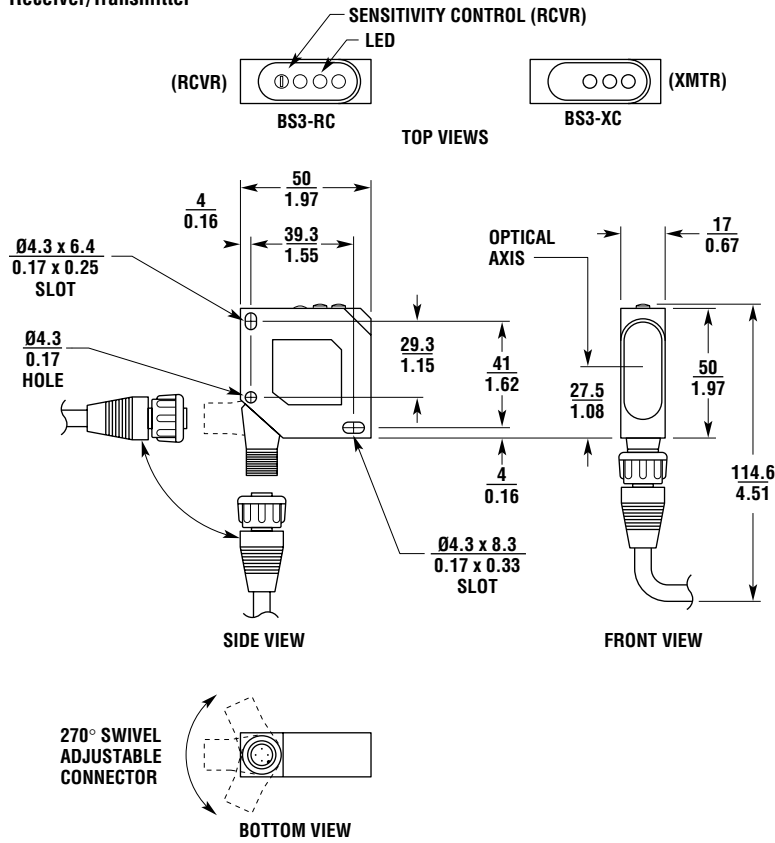
BS3-XC/BS3-RC Sensor Set

Operating Range: 15 m (45 ft.)
Reverse Polarity Protected: Yes
Short Circuit Protected: Yes
Maximum Cable: 100 m
Angle of Aperture: < ±2°
Ambient Light: EN60947-5-2
Light Source: Light Emitting Diode 880 nm
Sensitivity Adjust: Two turn with indicator
Environmental Rating: IP67
Operating Temperature: -20 to 60°C (10 to 143°F)
Weight: 60 g (0.14 lbs.)

Specifications are subject to change without notice.

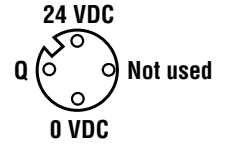
■ Dimensions—mm/in.

Receiver/Transmitter

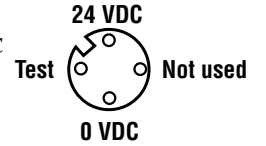


■ Wiring

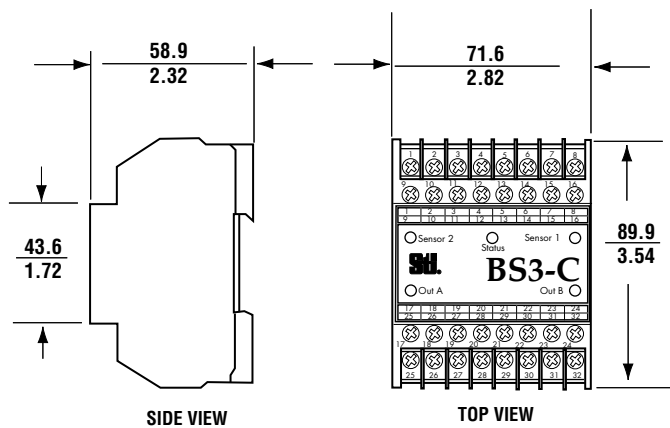
BS3-RC
 Brown: +24 VDC
 Black: Q
 Blue: 0 V



BS3-XC
 Brown: +24 VDC
 White: Test
 Blue: 0 V



Controller



A [Go to the Engineering Guide](#)
 For in-depth information on safety standards and use.