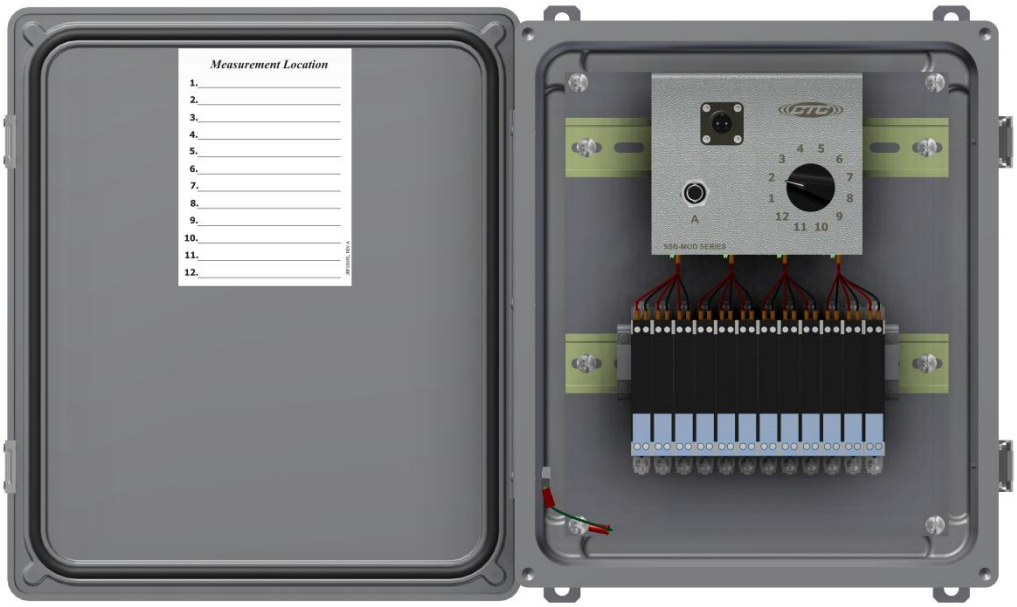
PROTECTION & RELIABILITY
OPTIMIZATION INSTRUMENTS
A CTC COMPANY

PRODUCT MANUAL

SSB9000 Series



SSB Module Switch Box with Barriers

Connection Technology Center, Inc. ● 7939 Rae Boulevard ● Victor, NY 14564 ● (585) 924-5900

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A CTC hivatalos magyarországi képviseletét a Delta-3N Kft. látja el.
Delta-3N Kft. 7030 Paks, Jedlik Á. u. 2. Tel.: +36-75-510115 Fax: +36-75-510114 www.delta3n.hu

FIGURES

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SECTION 1: OVERVIEW

Introduction

This document contains information on the operation, installation and maintenance of the SSB9000 Series Switch Box. This manual is an overview of the system and references the specific component manuals. User manuals are provided with the system for all configurable internal components.

Description

The SSB9000 Series Switch Box is a turnkey solution for a common cable termination point for bringing single axis intrinsically safe sensor cables into the SSB9000 switch box for routine data collection with portable data collectors. The sensors are to be wired directly to the provided barriers. Once wired, the outputs of the sensors can be obtained from the BNC or 2 pin Mil connector on the SSB module. Up to 12 single axis sensors can be wired for data collection. **The SSB9000 Series Switch Box is to be mounted in Safe Zone Areas ONLY.**

SSB9000 Series Model Selection

Ordering Information

SSB □□□□ – □□ – □ – □

Enclosure Type	# of Channels	Enclosure Entry	Enclosure Exit
9100 = Fiberglass Enclosure	**02** = 2 channels **03** = 3 channels	**A** = None	**A** = None
9101 = Fiberglass Enclosure with continuous output	**04** = 4 channels **05** = 5 channels	**B** = Conduit Fitting	**B** = Conduit Fitting
9200 = Stainless Steel Enclosure	**06** = 6 channels **07** = 7 channels	**C** = Cord Grips	
9201 = Stainless Steel Enclosure with continuous output	**08** = 8 channels **09** = 9 channels	**S** = *Stainless Steel Cord Grips	
	10 = 10 channels **11** = 11 channels **12** = 12 channels		

*Stainless Steel enclosure only.

Example Part Number: *SSB9100-12-AA*
Fiberglass enclosure, 12 Xener barriers and SSBMOD12 switch module, no enclosure entry, no enclosure exit

Figure 1. Product Selection Guide

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Specifications

Environmental

- Ambient Temperature Range: **-4°F(-20°C)** to **140°F(60°C)**
- Storage Temperature Range: **-4°F(-20°C)** to **167°F(75°C)**
- Humidity Range: 0-95% mean, No Dewing

Electrical

See MNX10XXX – IS111-1B Intrinsically Safe Barrier Manual for specific electrical and performance instructions and ratings.

Physical

- Fiberglass Enclosure Dimensions:
  - 12 x 10 x 6 ½ IN (305 x 254 x 165 mm)
- Stainless Steel Enclosure Dimensions:
  - 12 x 10 x 7 IN (305 x 254 x 178 mm)

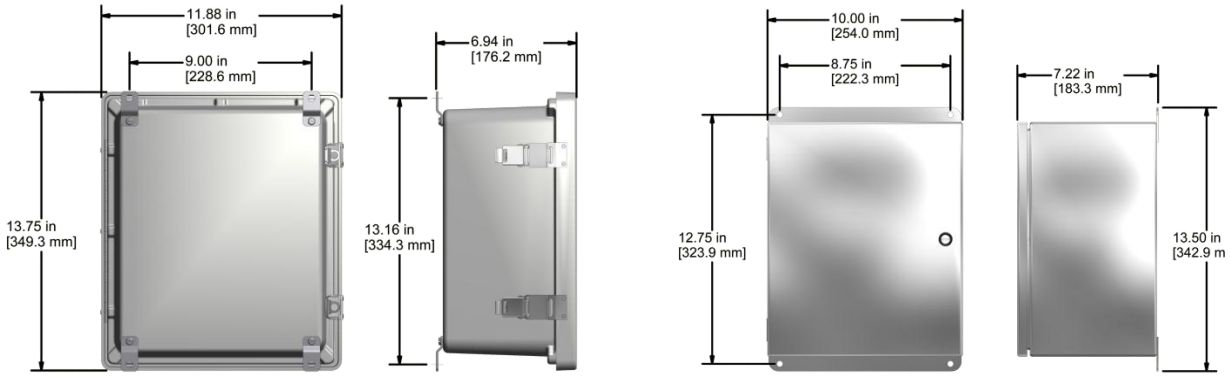

Figure 2. Enclosure Dimensions

Ratings

- Enclosures are rated with a NEMA 4X (IP66)
  - Resistant to Hose Directed Fluid and Corrosion

Safe Zone Installation Only

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SECTION 2: INSTALLATION

Mounting Instructions

Mounting

a. For Fiberglass enclosures, mounting brackets and fasteners are included with the enclosure. They should be taped to the top side of the enclosure upon arrival. These mounting brackets can be attached at the pre-determined locations. **(Wall anchoring screws are not included)**

Figure 3. Fiberglass Mounting Feet

b. For Stainless Steel enclosures, mounting brackets are built into the enclosure. **(Wall anchoring screws are not included)**

Figure 4. Stainless Steel Mounting Flanges

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Enclosure Grounding

c. For Fiberglass enclosures, a ground lug is provided on the hinge side of the enclosure for earth ground. (Customer is required to supply wire from earth ground to shield ground lug)

Figure 5. Fiberglass Grounding

d. For Stainless Steel enclosures, the box is internally grounded. **(Customer is required to supply wire from earth ground to mounting bracket of enclosure)**

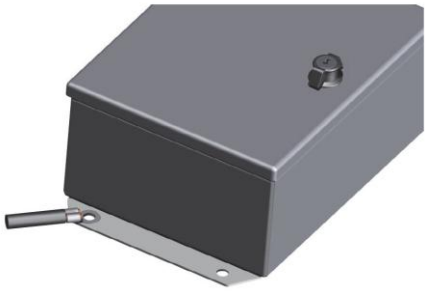

Figure 6. Stainless Grounding

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Cable Entry/Exit

e. Cables enter and exit through conduit fittings and/or cord grips on the bottom of the enclosure. Input wires are routed through either cord grips (1 per channel) or a conduit fitting. All output wires are routed through a conduit fitting.

f. If the cable entry/exit options are to be user defined, ensure that the conduit cable entry enters from the bottom of the enclosure when mounted. **(CTC does not recommend putting holed in the top of the enclosure due to access and moisture concerns.)**

Figure 7. Entry / Exit Options

Note: To ensure moisture will not flow into the enclosure, a hole should be drilled at the lowest point in the conduit to provide drainage for any moisture.

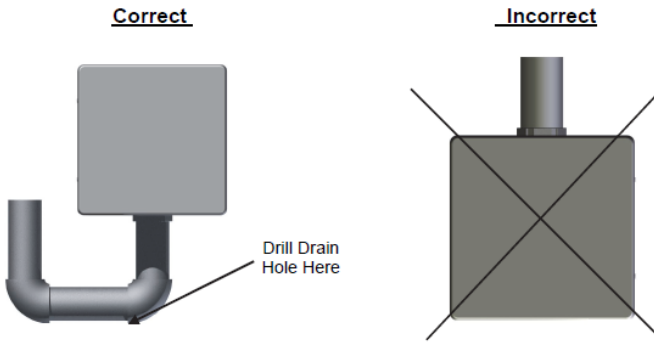

Figure 8. Conduit Orientation

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Electrical Connections

Inputs

Cables enter the enclosure through the designated entry option selected (cord grips, conduit, or custom user defined/installed options). All wires are connected to the provided barriers (1 barrier per channel).

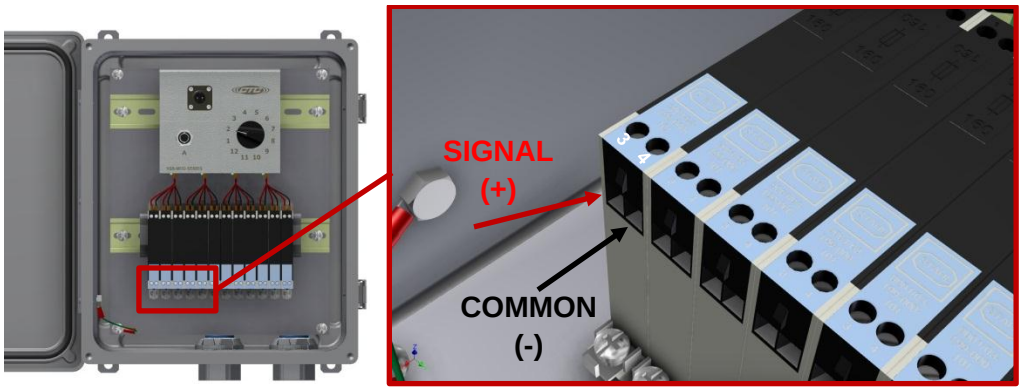

Figure 9. Sensor Wiring

Outputs

For the continuous output option, a conduit or custom user defined/installed option is provided for cable exit. Output signals can be obtained through the provided “T” plug on the SSB Module.

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SECTION 3: OPERATION

Once all sensors are wired to the provided barriers, data may be taken from the BNC or 2 pin Mil connector on the SSB Module. Use the switch to change the channel being analyzed.

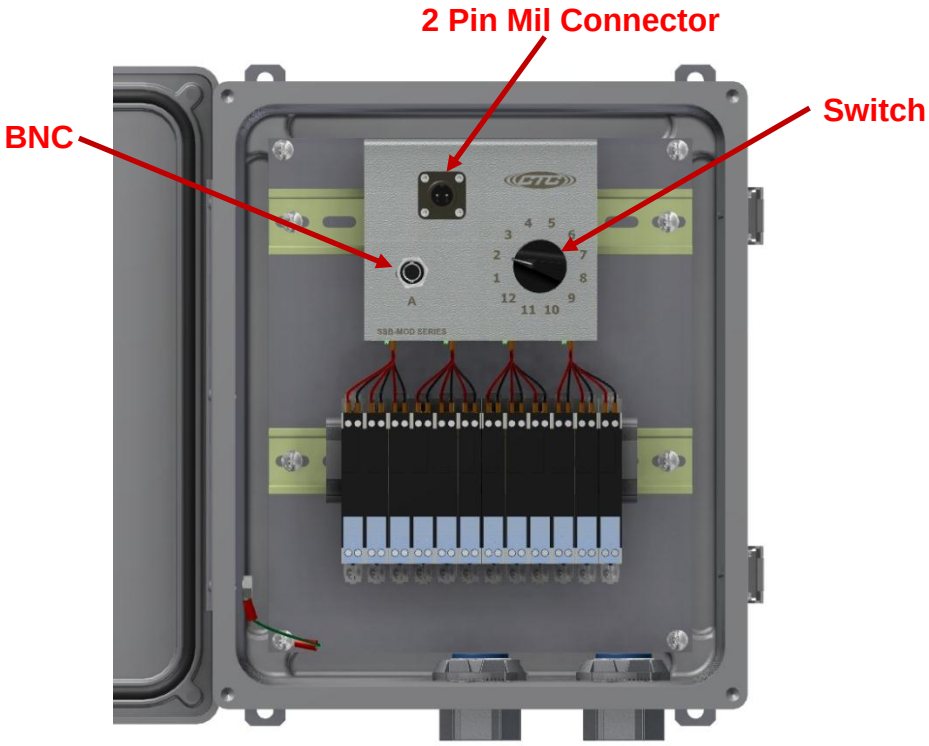

Figure 10. SSB9000 Series Layout

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SECTION 4: TROUBLESHOOTING

Common Problems

Trouble shooting chart

Note: For specific problem resolution, please call an Applications Engineer at 1-800-999-5290.

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SECTION 5: MAINTENANCE

Once the system has been installed, it requires minimal maintenance. Basic checks to ensure system integrity should be made periodically.

Visual inspection should include examinations for the following:

- No Visible electrical burns or smoke inside the enclosure
- Enclosure hinges are free from rust and securely latched
- No moisture or condensation build up inside the enclosure

General

There are no customer replaceable parts. The SSB9000 Series Switch Box should provide trouble-free continuous service under normal operating conditions.

Warranty

If any PRO product should ever fail, we will repair or replace it an no charge as long as the product was not subject to misuse, natural disasters, improper installation or modification which caused the defect.

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