OPERATION / INSTALLATION MANUAL

CMCP300 Series
BNC JUNCTION BOX

REV. A August, 2010

Model Description:

The **CMCP300 Series** BNC Boxes are designed for terminating the outputs of up to 6 sensors. BNC Boxes are generally installed in a location as close to the machine as practical to reduce wiring costs and yet provide a convenient and safe way to access the vibration and/or temperature signals by an operator or analyst with a portable data collector or analyzer.

The **CMCP300 Series** BNC Boxes are available in three (3) types of enclosures to best suit the environment in which they will be installed.

- Fiberglas, NEMA 4X
- Powder Coated Steel, NEMA 4
- Stainless Steel, NEMA 4X

Mounting:

Powder Coated Steel (PS) and Stainless Steel (SS) enclosures provide welded on mounting feet. Fiberglass (FG) versions are shipped with field installable mounting feet (qty. 4) inside of each enclosure.
See mounting dimensions on pages 4 thru 6.

Wiring:

It is strongly recommended that the **CMCP300 Series** BNC Box be mounted as close as practical to the associated machine. This will prevent signal distortion associated with current drive limitations, and will minimize interference from external electro-magnetic noise sources (EMI). A well shielded, properly installed transducer cable is absolutely necessary to obtain reliable operation. The cable should be routed as far away from other electrical circuits as possible, and run in metal conduit where possible. Twisted-shielded cables designed and pre-fitted with the proper transducer connector, and sold for this specific purpose are highly recommended. A common cable grounding scheme should be used on all sensors to avoid ground loops.

1. The cable shield should be open at the transducer end, and connected to the input common on the **CMCP300 Series BNC Box**. ***STI's Preferred Method***
2. **Or** connected at the transducer end, and open at the **CMCP300 Series BNC Box**. The cable should be routed as far away from other electrical circuits as possible, and run in metal conduit where possible

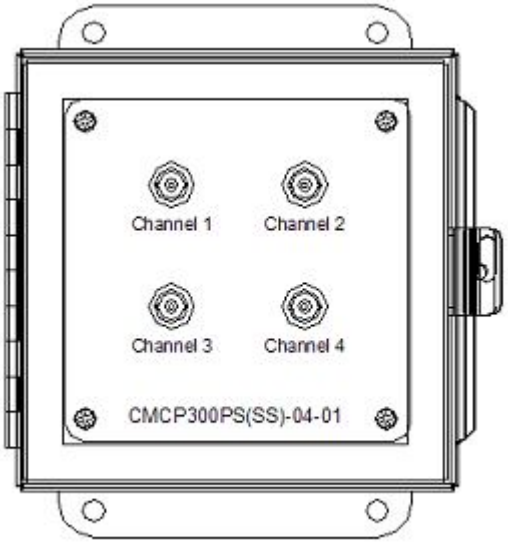
Cable Entry:

Conduit, cord grips and cable glands should be installed on the bottom of the enclosure to prevent any leakage into the enclosure. When installing conduit a drain hole should be drilled in the conduit at the lowest point to allow moisture or liquid to drain.

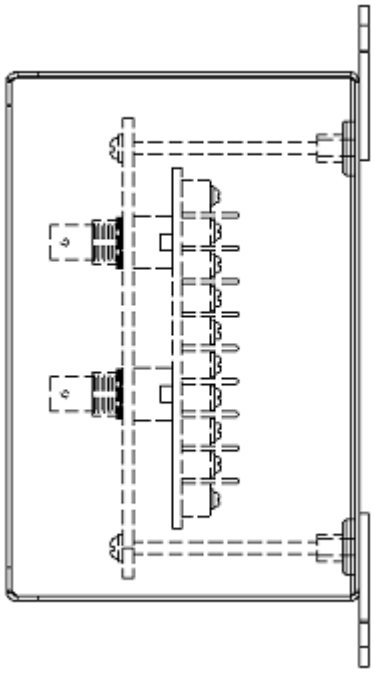
Sensor Wiring:

To gain access to the sensor input terminals simply open the enclosure and remove the four (4) Phillips Head screws that hold the front panel. The sensor input terminals are located on the reverse side of the panel.

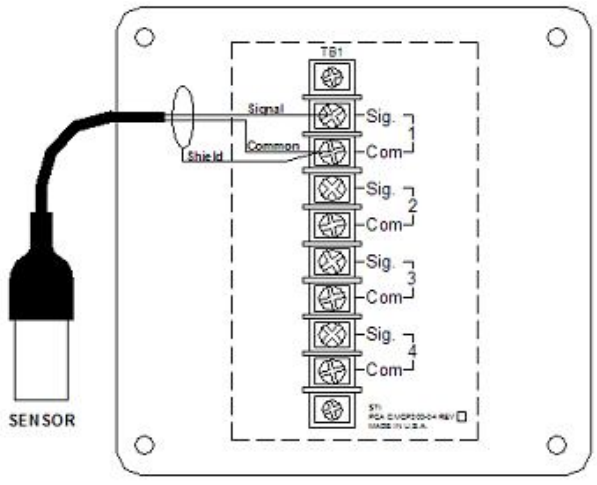
Front Panel (Door Open)



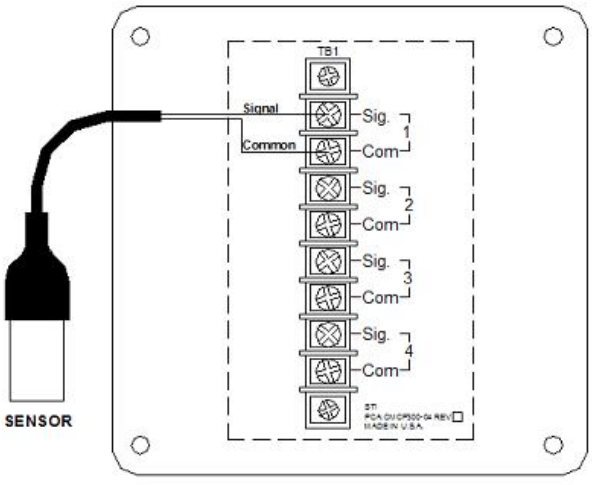
Sensor Input Terminal Location



Grounded at CMCP300 Series BNC Box
******STI Preferred Method******



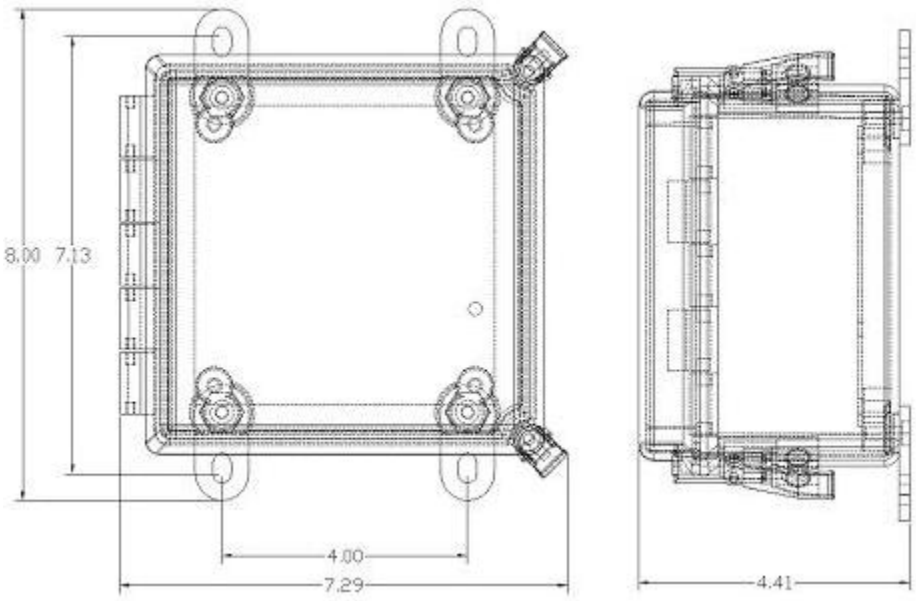
Grounded at Machine



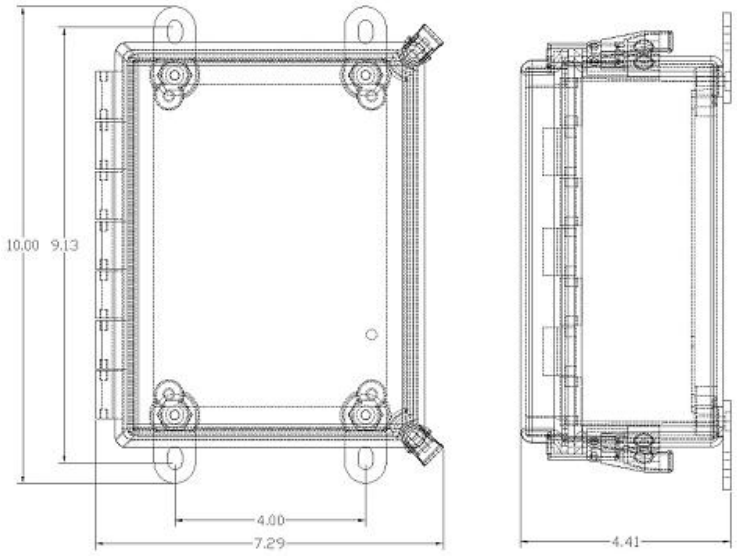
Dimensions and Ratings:

Fiberglass (FG) NEMA 4X

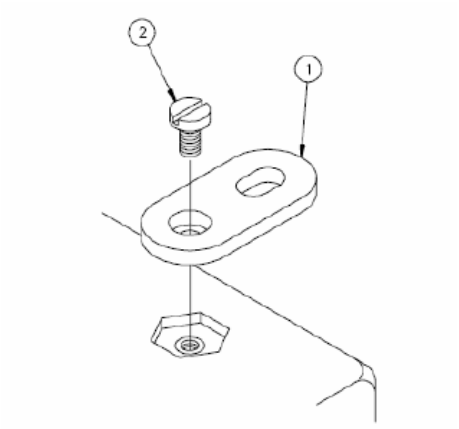
CMCP300FG-01, 02 and 04



CMCP300FG-06



Mounting Feet Installation

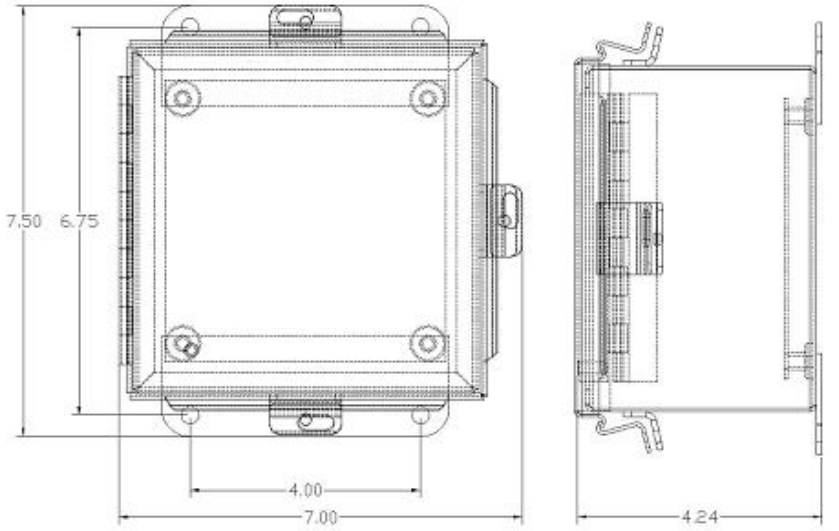


Industry Ratings:

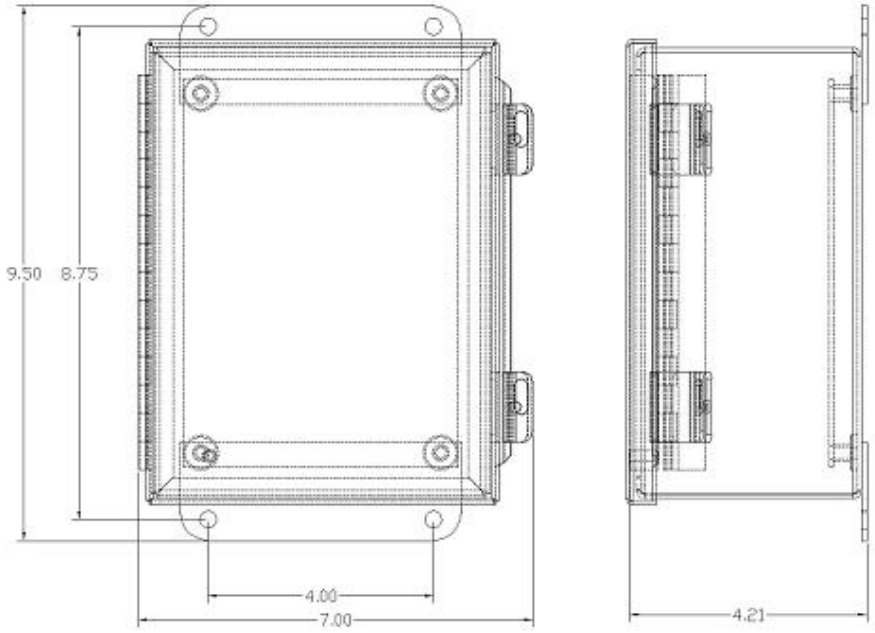
UL 508A, File No. E61997: Type 4, 4X, 12 and 13
NEMA/EEMAC Type 4, 4X, 12 and 13
Enclosure Flammability Rating per UL 508A
CSA File No. 42186: Type 4, 4X, 12 and 13; IEC 60529, IP66

Painted Steel (PS) NEMA 4

CMCP300PS-01,02 and 04



CMCP300PS-06

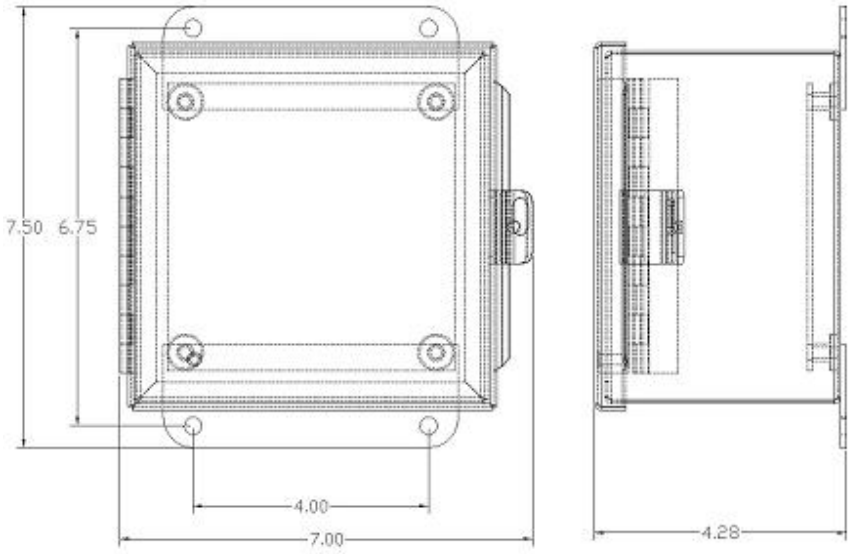


Industry Ratings:

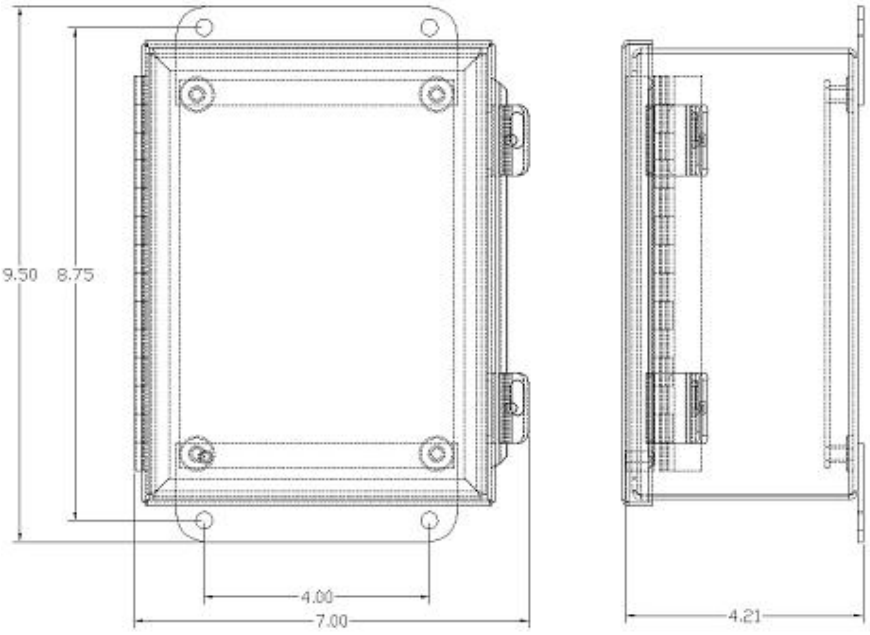
UL 50, File No. E27567: Type 4, 12, and 13
UL 508A, File No. E61997: Type 4, 12, and 13
NEMA/EEMAC Type 4, 12, and x13
CSA, File No. 42184: Type 4 and 12, IEC 60529, IP66

Stainless Steel (SS) NEMA 4X

CMCP300SS-01,02 and 04



CMCP300SS-06



Industry Ratings:

UL 50, File No. E27567: Type 3R, 4, 4X and 12
UL 508A, File No. E61997: Type 3R, 4, 4X, and 12
NEMA/EEMAC Type 3R, 4, 4X, 12 and 13
CSA, File No. 42184: Type 4, 4X, and 12
IEC 60529, IP66

Troubleshooting Guide:

Symptom	Corrective Action
No Output	Check sensor wiring
Channels Reversed	Check to be sure sensor is wired in correct location.

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