

2022/2023

**CMCP Junction Boxes
Brochure**



"Great Concept and Design"

BNC Junction Boxes

BNC Junction Boxes are the first step to take portable vibration data more accurately and more safely. Accelerometers are installed permanently on the machine to be monitored and wired to the BNC Junction Box. The portable Data Collector is connected to the BNC and repeatable measurements will be taken from a safe distance. If desired, the setup can be utilized later as the basis for an online system.

STI's wide variety of BNC and Switch Boxes offer a local access point for the machine's sensors. The BNC and Switch Boxes are typically installed within the proximity of the machine being monitored.



This Brochure provides an overview of the BNC Junction Boxes and other solution for BNC's.

For more information and the complete data sheets, please visit us online:
<https://www.stiweb.com>

Why CMCP BNC Junction Boxes?

- Individual (one BNC per channel) or Switchable (one BNC per 12 channels)
- Enclosures in Fiberglass, Painted Steel or Stainless Steel
- Flexible Channel Count
- Quick Release Door Latches (when BNC is located internally)
- Engraved Channel ID's
- Heavy Duty Sensor Input Terminal Strips
- Sensor Location Guide in Door
- Optional Installed IP68 Breakthrough Cord Grips
- Suitable for Class 1 Division 2 Environments

The CMCP300 Series BNC Junction Boxes are multiple channel connection centers for terminating the outputs of accelerometers or other transducers. They are normally located near a machine to reduce wiring costs as well as to provide a convenient and safe location to access sensor signals. The CMCP300 Series BNC Boxes are available with either a Fiberglass NEMA 4X, Painted Steel NEMA 4 or Stainless Steel NEMA 4X enclosure. Stainless Steel enclosures are rated IP67. All enclosures feature integral mounting flanges and quick release door latches. Rigid or flex conduit can be connected to the enclosure to protect the sensor cables, or cable glands such as our CMCP261 Liquid Tight Strain Relief Connectors, can be used for individual cables that do not require conduit. BNC boxes are suitable for Class 1 Division 2 environments.

What our customers say!

"Great concept and design" says Magnus Hildingsson, Sweden "We really like the concept and the quality of the boxes from STI and the solution where the BNC hatch covers the terminals." Magnus refers to the front plate that protects the entire wiring after installing.



Shown above: CMCP310 Front plate covering the Terminals

Individual versus Switchable Junction Boxes

Category	Part ID	
Type	CMCP300	CMCP310
Specifications	Individual BNC Junction Boxes	Switchable BNC Junction Boxes
		
Case Material and Rating	FG Option: Compression Molded Fiberglass NEMA 4X (IP66) PS Option: 14 AWG Mild Steel ANSI 61 Powder Coated NEMA 4 (IP65/66) SS Option: 14 AWG 304 Stainless Steels NEMA 4X (IP67)	
Standard Number of Channels	1-18	6, 12, 24, 36 and 48
Number of BNC's	One BNC per channel	One BNC for up to 12 Channels
Temperature	-55 to +85 °C (-67 to 185 °F)	-55 to +85 °C (-67 to 185 °F)
Example MSRP:	CMCP300FG-06-01-00 \$ 245.00	CMCP310FG-06-01-00 \$ 360.00

Most of our Junction Boxes are ordered with the BNC's located inside the enclosure, however, outside BNC's can be specified with -02 (CMCP300FG-06-02-00) after the number of channels (-06).

The last two digits in the part id determine if Cord Grips are installed in the bottom of the enclosure as cable entries for Sensors.

The Switchable Junction Box advantage

The switchable BNC Junction Box (CMCP310) features, in addition to the BNC connector, a MS 5015 connector to connect a portable Data Collector via the cable also used for accelerometers. Just plug in and switch through the channels to take data.



CMCP303 Series of Triax Connection Boxes

The CMCP303 Series Triax Connection Boxes are used to connect remotely installed Triaxial Accelerometers to Multi Channel Data Collectors and Analyzers. The CMCP303 Connection Box is installed in a convenient and safe area and connected to Triaxial Accelerometers mounted on rotating machinery. The CMCP303 Series Triax Connection Boxes are available in 2, 4 and 6 Triax configurations. They are also available with Fiberglass, Painted Steel or Stainless Steel Enclosures with Fiberglass being the most popular. Optional CMCP261-02 Cord Grips are available.

Features

- 2, 4 or 6 Triaxial Accelerometers
- 4-Pin Quick Connect Connector
- Quick Release Doors
- Engraved Wiring Labels
- Easy and Safe Access



Shown above: CMCP303 for 2 Triaxial Accelerometers

CMCP315 BNC Junction Box

The CMCP315 Series Triaxial Accelerometer Switchable BNC Junction Boxes are multiple channel connection centers designed for terminating the outputs of triaxial accelerometers while allowing simultaneous data collection. The CMCP315 Series BNC Boxes are circuit board based with a removable front cover plate to ease installation. The cover plate hides all internal wiring to limit exposure for increased protection.

Features

- Available for 2 to 16 Triaxial Accelerometer Inputs
- 3 BNC Outputs (X,Y and Z)
- Optional Quick Connect Output
- Fiberglass, Painted Steel or Stainless Steel Enclosures
- Rated IP66/IP67, NEMA 4/4X
- Heavy Duty Terminal Strips
- Quick Release Door Latches
- Top Plate Safety Cover
- Optional IP68 Break Cord Grips



Shown above: CMCP305PS Quick Access BNC JB

CMCP305 Series of Quick Access BNC Boxes

The CMCP305 Quick Access series BNC boxes are a low cost solution to adding a local measurement point to your maintenance route. The polycarbonate enclosure is rated for NEMA 4X and IP67. The "screw type" terminals can handle up to 16 AWG wire and are mounted on the lid, leaving the base of the enclosure for wiring. The CMCP305 is available in 2, 3 and 4 channels with CMCP261-01 Liquid Tight Strain Relief Connectors pre-installed. STI's wide variety of BNC and Switch boxes are designed to bring the measurement point to you, keeping you out of the way of moving parts and saving you time from having to walk to each location.

Features

- Individual BNC
- Low Cost
- NEMA 4x, IP67
- Indoor Use Only
- 2, 3 or 4 Channels
- Dust Caps for BNC's



Shown above: CMCP305 with 4 channel and 2 channel (right)

CMCP305PS BNC Junction Box

The CMCP305PS Quick Access BNC Junction Boxes are multiple channel Quick Access centers for terminating the outputs of accelerometers or other transducer field wiring. Typically, the boxes are installed near the machine to reduce wiring costs and provide a quick and safe way to access the vibration signals when used with a portable data collector or analyzer.

Features

- Individual BNC's
- Low Cost
- Black Die Cast Aluminum Powder Coated Housing
- Ingress Protection IP66, -for Outdoor Locations
- Scalable in 2, 3 or 4 Channels
- Internal BNC's (Behind Door)
- Compact Footprint



Shown above: CMCP305PS Quick Access BNC JB



STI Vibration Monitoring Inc.
An ISO 9001:2015 Certified Company

Condition Monitoring Custom Products

Low-Cost BNC Solutions

CMCP312 12 Channel DIN Rail Mount Switchable BNC

The CMCP312 provides a switchable BNC output for up to 12 Accelerometers, and easy access for connecting Data Collectors and Analyzers. The CMCP312 small size allows it to be mounted almost anywhere. The CMCP312 mounts on Standard 35 mm DIN Rail and Accelerometers are easily attached using the provided screw terminals. The CMCP312 is for Interior Mounting, if mounted outdoors a suitable Junction Box should be used.

Features

- 12 Accelerometer Channels
- BNC Output
- DIN Rail Mounted
- Screw Terminals
- 22-14 AWG
- Indoor (or Enclosure) Use



Shown above: CMCP312 DIN Rail Mount Switchable BNC

CMCP300P Sensor Interface and Power Module

The CMCP300P Sensor Interface and Power Module accepts up to four (4) two-wire or three-wire sensors and can provide power to various Accelerometers, Proximity Probes and Speed Sensors. Each channel can be independently configured to allow the use of 2 or more different sensors. Selectable constant current power is provided for all standard accelerometers and dual power supply connections allow for +24 VDC and -24 VDC to be used simultaneously, making the CMCP300P ideal for portable and permanent installations.



Shown above: CMCP300P

Features

- Compact Design
- Easily accessible Screw Terminals
- Accepts up to Four Sensors
- Normally Closed (NC) Signal Outputs
- Simultaneous Connection of Accelerometers, Proximity Probes and DC Sensors
- Onboard Constant Current Power for IEPE Sensors (Integrated Electronics Piezo-Electric)
- Dual Power Supply Capability (+24V and -24V Operation)
- Optional Battery Pack for Portable Use
- Optional Din Rail Mounting Plate
- Optional Din Rail Mounted Power Supply



STI Vibration Monitoring Inc.
An ISO 9001:2015 Certified Company

Condition Monitoring Custom Products

CMCP310PSB Portable Switch Box

The CMCP310PSB is a multiple channel connection center used to terminate the outputs of accelerometers or other transducers. The lightweight, portable switch box allows the user to collect data in a convenient and safe location. The CMCP310PSB features a compact anodized aluminum housing with eight BNC signal inputs and one BNC output with selector switch.

Features

- Accepts up to 8 Inputs
- BNC or Terminal Block Inputs
- BNC Outputs with Selector Switch
- Lightweight Anodized Aluminum Housing
- Compact Housing •Increases Data Collection Time
- Small footprint: 4.4"x4.2"x2.0" (111.7x106.7x50.8mm)
- Laser Engraved Channel ID's



Shown above: CMCP310SB with 8 BNC Inputs



Shown above: CMCP310SB with Terminal Inputs

BNC Junction Box Kits

The BNC Junction Box Kits combine the CMCP300 Individual Junction Box with **CMCP1100 100 mV/g Side Exit Accelerometers** with 10 Meter Integral Cable, one for each channel.

Shown right: CP1101003 with 1x CMCP300FG-04-01-00, 4x CMCP1100S-10 Accelerometer and 1x CMCP262 Cable Gland

