



Index to CMCP Product Book

1	Vibration and Temperature Sensors
2	Accelerometer Mounting Accessories
3	Cables and Connectors
4	Eddy Probe Accessories
5	BNC Junction Boxes and Switch Boxes
6	Transmitters and Monitors
7	Monitoring Systems
8	Tachometers
9	Analog to Digital Converters
10	HMI Systems
11	LVDT
12	Balancing Products
13	Rotor Kits
14	Runout Measurement
15	Instrument Wire
16	Custom Cabinet Integration



CMCP1100

General Purpose Industrial Accelerometer

Features

- Small Size Case, 1/2" x 1.05",
- Small Footprint, 1/2"
- Integral Cable (5, 10 or 20 Meters)
- 100 mV/g Sensitivity
- 0.32 Hz to 10 KHz Frequency Range (± 3 dB)
- Waterproof
- LOW COST

DYNAMIC PERFORMANCE	ENGLISH	SI
Sensitivity ($\pm 10\%$)	100 mV/g	10.2 mV/(m/s ²)
Measurement Range	± 50 g	± 490 m/s ²
Frequency Range: (± 3 dB)	20 – 600k cpm	0.32 – 10k Hz
Mounted Resonant Frequency	1320k cpm	22k Hz
Amplitude Linearity	$\pm 1\%$	$\pm 1\%$
Transverse Sensitivity	$\leq 7\%$	$\leq 7\%$
ENVIRONMENTAL		
Shock Limit	5,000 g pk	49k m/s ² pk
Temperature Range	-65 to +185° F	-48 to 85° C
ELECTRICAL		
Settling Time	≤ 2 sec	≤ 2 sec
Excitation Voltage	18 to 30 VDC	18 to 30 VDC
Excitation Constant Current	2 to 20 mA	2 to 20 mA
Output Impedance	<150 ohms	<150 ohms
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC
Electrical Case Isolation	$>10^8$ ohms	$>10^8$ ohms
Electrical Protection	RFI/ESD	RFI/ESD
Integral Cable	22 AWG, 221° F	22 AWG, 105° C
MECHANICAL		
Size	0.5 x 1.05"	12.7 x 26.67 mm
Weight (including 5 M cable)	2.5 oz	70.7 g
Mounting Thread	1/4-28 UNF-2B	1/4-28 UNF-2B
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 N-m
Sensing Element	Ceramic/Shear	Ceramic/Shear
Case Material	Stainless Steel	Stainless Steel
Sealing	Potted	Potted
Wrench Flats	7/16"	7/16"



Ordering Information:

Part No.	-XX	Description
CMCP1100	05	5 Meter Integral Cable (16.5 feet)
	10	10 Meter Integral Cable (33 feet)
	20	20 Meter Integral Cable (66 feet)
	XX	Specify Length

Electrical Noise:

10 Hz:	10 $\mu\sqrt{\text{Hz}}$
100 Hz:	0.7 $\mu\sqrt{\text{Hz}}$
1000 Hz:	1.0 $\mu\sqrt{\text{Hz}}$



CMCP420VT Vibration Transmitter

Features

- **Solid State Reliability**
- **Integral Sensor**
- **4-20 mA Output**
- **Dynamic Signal Output**

Description

The CMCP420VT is a solid state, loop powered vibration transmitter. It provides a 4-20 mA output that is proportional to overall vibration in terms of velocity. The CMCP420VT continuously monitors machinery health and transmits directly into a PLC or DCS for trending, alarm and machine shutdown. In addition, the CMCP420VT provides access to the dynamic transducer output. The buffered output is available for temporary connection of portable analyzers for detailed machine fault analysis.

Simple Installation

Simply mount the CMCP420VT into a tapped hole in the bearing housing or machine case, connect two wires into a 4-20 mA loop, and you are ready to interface with a PLC or DCS. Electrical conduit may be connected directly to the top 3/4" NPT fitting.

Ordering Information: (New)

Part No.	-XX	-XX	-XX	Description
CMCP420V	01			0-1 in/sec, RMS
	02			0-2 in/sec, RMS
	03			0-25 mm/sec, RMS
	04			0-50 mm/sec, RMS
		00		5/16"-24, Standard Mount
		01		1/2" NPT Stud Mounting Adapter
		02		3/4" NPT Stud Mounting Adapter
			00	No LED Display
			01	With LED Display & BNC
			02	With BNC



Specifications:

Dynamic

Output: 4-20 mA proportional to full scale Velocity
 Frequency Response: 2-2,000 Hz
 Buffered Output: Acceleration, 100 mV/g
 Accuracy: ±5%

Electrical

Power (Two wire loop power): + 22 to + 36 Vdc
 Maximum Load: 600 Ohms resistive
 Grounding: Case Isolated

Environmental

Operating Temperature: -20° C to +80° C
 Sealed: Epoxy Encapsulated
 Enclosure: SS, NEMA 4, 4X, 12
 Mounting: Stud Mounted
 Weight: 8 oz. (without display)

Ordering Information: (Retrofit)

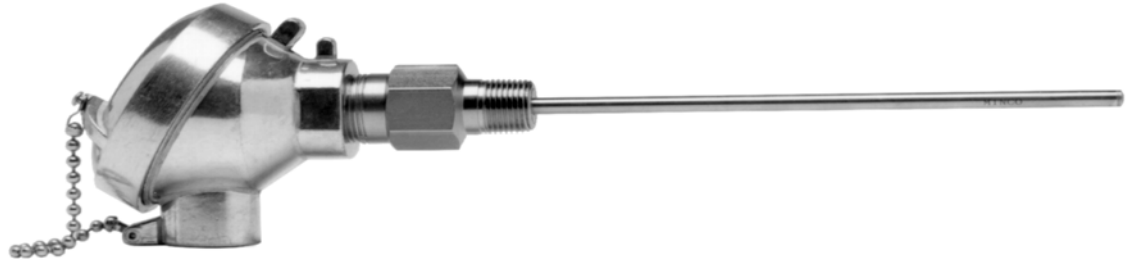
Part No.	-XX	Description
CMCP420LED	01	0-1 in/sec, RMS
	02	0-2 in/sec, RMS
	03	0-25 mm/sec, RMS
	04	0-50 mm/sec, RMS

CMCP420BNC	BNC Adaptor
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CMCP1210

RTD & Thermocouple Tip Sensitive, Spring Loaded Sensors for Rolling Element Bearings



Features:

- *Tip Sensitive RTD or Thermocouple*
- *For use to 260° C (500° F)*
- *Adjustable Spring-Loaded Holder with Fluid Seal*
- *Aluminum Connection Head*

Description

The CMCP-1210 series temperature sensor provides, fast and accurate readings from bearings, blocks, and other solids. CMCP's spring-loaded holder ensures solid contact in drilled holes with a built-in oil seal. The sensing probe features a copper alloy tip for quick response to temperature changes. Probes may be cut to length in the field using a tube cutter. Explosion proof version is available upon request.

Ordering Information:

CMCP-1210	Sensor	Ins. Depth	Description
	- PA		Platinum 392, 100 Ohm (US)
	- PD		Platinum 385, 100 Ohm (Meets DIN, EIC, CI B)
	- J		Type J Iron-Constant Thermocouple
	- K		Type K Chromel-Alumel Thermocouple
		- 8.4	8.4" Standard Insertion Depth (Field Cut)
		- X.X	Insertion Depth - Specify 0.1" Increments Example: 6.7 = 6.7 Inches (Max 8.4")

Specifications

Temperature range: -50° to 260° C (-58° to 500° F)

Material:

Probe: SS with Copper Alloy Tip
 Holder: Nikel Plated Steel with Viton O-ring
 Head: Aluminum

Pressure rating: 50 psi (3.4 bar)

Insulation resistance: 10 megohms min. at 100 Vdc, leads to case. Ungrounded junctions only on thermocouples.

Connection: Terminal block for wires to 14 AWG

Conduit thread: 1/2" or 3/4" NPT (Bushing Provided)

Bearing entry: 1/2" NPT (For 3/4" NPT, use optional CMCP-1211 Adapter. Add 1" to length for adapter.)

Time constant: Typical value in moving water:
2.0 seconds



Accelerometer Mounting Accessories

Description

Accelerometer Mounting Accessories are provided by SKF Condition Monitoring Custom Products to assist our customers with the installation of permanently installed accelerometers. These accessories will simplify acquiring the various components required to complete the job quickly and properly.

The following list itemizes the accessories that may be required for an accelerometer installation:

- Accelerometer Mounting Pads
- Acrylic Epoxy Bypacs
- Silicone Dielectric
- Accelerometer Mounting Studs
- Piloted End Mill Spot Reamers
- NEMA 4X Junction Boxes
- Liquid Tight Connectors
- Ceramic Wire Nuts
- Tie Wraps
- Spiral Wrap

CMCP200 Accelerometer Mounting Pads

Accelerometer Mounting Pads are used for glue (epoxy) mounting accelerometers to a prepared surface. Mounting pads are stainless steel and are 1" (2.54cm) in diameter, and either 1/4"(0.64cm) or 3/8" (0.95cm) thick.

The pads are lapped on one side to provide an ideal mounting surface for the accelerometer attachment. The pads are tapped with a 1/4"x28 UNF hole for accelerometer mounting.

The 1/4" thick version is recommended for low clearance installations or when using the combination epoxy and stud mounting method. The 3/8" thick version is recommended for installing ring mode accelerometers.

Ordering Information

CMCP200	XX	Description
	01	1" Dia. x 1/4" Thick
	02	1" Dia. x 3/8" Thick

CMCP210 Acrylic Adhesive Bypacs

Acrylic 406/17 Adhesive Bypacs are an easy to use solution for gluing Accelerometer Mounting Pads to a prepared surface area on a bearing housing. The adhesive is prepared inside the Bypac by removing the plastic separator and kneading together the two adhesive components. A corner of the bag is then removed to allow easy dispensing of the mixture. Each Bypac will glue (1-2) Accelerometer Mounting Pads. A Material Safety Data Sheet (MSDS) for this product will be supplied upon request. Shelf life is approximately 6 months.

Ordering Information

CMCP210	406/17 Adhesive Bypac
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CMCP212 Silicone Dielectric

High frequency applications require that a thin coating of Silicone Dielectric be applied between the accelerometer and the mounting surface before mounting the accelerometer to the proper torque. The dielectric helps insure the transmittal of high frequency vibration across the mounting interface. When an accelerometer is installed in harsh or moist environments, Silicone Dielectric is also recommended for additional sealing of the accelerometer's connector.

Each one ounce tube of Silicone dielectric will install approximately 50 - 100 accelerometers. When also used as a connector sealant, each tube will accommodate approximately 15-25 accelerometers.

Ordering Information

CMCP212	Silicone Dielectric, 1 oz.
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CMCP230 Accelerometer Mounting Studs

Accelerometer mounting studs are used to mount the 1/4" mounting pads directly to the tapped bearing housing in combination with epoxy. The 3/4" long stud provides the proper length for mounting the pad to the bearing surface and in turn the stud to the accelerometer. Allen studs are made of stainless steel and have 1/4"x28 UNF threads. Allen head studs are provided in packs of (10) ten.

Ordering Information

CMCP230	10 Mounting Studs
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CMCP701 Piloted End Mill Spot Reamer

Piloted End Mill Aircraft Spot Reamers are used to mill a 1" (2.54cm) smooth flat area on bearing housings. The flat area will accept a stud mounted, or a glue (epoxy) mounted accelerometer to a mounting pad. A 7/32" drill and pilot along with the end mill are included in each kit. The 7/32" drilled hole can then be tapped with a 1/4"-28 UNF starter and bottom tapped for stud mounted accelerometers.

Ordering Information

CMCP701	Piloted End Mill
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CMCP220 Accelerometer Adhesive Mount Kit

The CMCP220 Kit provides all the items necessary for adhesive mounting of 10,32, 64, or 128 accelerometers.

Ordering Information

CMCP200	XX	XX	Description
	10		10 Accelerometer Kit
	32		32 Accelerometer Kit
	64		64 Accelerometer Kit
	128		128 Accelerometer Kit
		01	1/4" Mounting Pads
		02	3/8" Mounting Pads



Accelerometer Mounting Accessories

CMCP260 NEMA 4X Junction Box

NEMA 4X Fiberglass Junction Boxes are designed for use in corrosive environments. Screw covers are hinged on one side and provided with an oil resistant "O" ring gasket. The fiberglass box is easily drilled to accept water resistant cable entries. The boxes are gray in color and are provided with stainless steel screws and mounting feet.

Ordering Information

CMCP260	XX	Description
	01	6"H x 6"W x 4"D
	02	8"H x 6"W x 4"D
	03	10"H x 8"W x 6"D

CMCP261 Liquid Tight Strain Relief Connectors

The CMCP261 are used for making direct accelerometer or transducer extension cable entries into a CMCP260 Junction Box. Long cable runs or cables other than actual extension cables should be installed in conduit. Connectors are constructed of Polyamide and provide both environmental sealing and strain relief. The connectors are temperature rated from minus 40°F to +212°F (-60°C to +100°C). They are pressure rated to 150 PSIG.

Ordering Information

CMCP261	XX	Min. OD	Max. OD
	01	0.08" (2mm)	0.20" (5mm)
	02	0.16" (4mm)	0.31" (8mm)
	03	0.20" (5mm)	0.35" (9mm)
	04	0.28" (7mm)	0.47" (12mm)
	05	0.35" (9mm)	0.70" (18mm)
	06	0.51" (13mm)	0.78" (20mm)

CMCP270 Ceramic Wire Nuts

Ceramic wire nuts are recommended for paper machine applications to connect accelerometer extension cables to the CMCP400 20 AWG instrument cable. The wire nuts have no metal parts and are not subject to corrosion.

Ordering Information

CMCP270	Pack of 100 Ceramic Wire Nuts

CMCP271 Tefzel® Tie Wraps

Tefzel tie wraps are used when high temperatures and harsh environments are a factor. Tefzel tie wraps are rated for -50°F to +302°F (-46°C to +150°C).

Ordering Information

CMCP271	XX	Description
	01	4" Small
	02	7.25" Medium
	03	14.5" Large

CMCP272 Spiral Wrap

Spiral Wrap is recommended for instrument wire protection where it is subject to bending or abrasion. The material is polyethylene.

Ordering Information

CMCP272	XX	Description
	01	3/8" x 80'
	02	1/2" x 65'



Accelerometer Mounting Accessories

CMCP260 NEMA 4X Junction Box

NEMA 4X Fiberglass Junction Boxes are designed for use in corrosive environments. Screw covers are hinged on one side and provided with an oil resistant "O" ring gasket. The fiberglass box is easily drilled to accept water resistant cable entries. The boxes are gray in color and are provided with stainless steel screws and mounting feet.

Ordering Information

CMCP260	XX	Description
	01	6"H x 6"W x 4"D
	02	8"H x 6"W x 4"D
	03	10"H x 8"W x 6"D

CMCP261 Liquid Tight Strain Relief Connectors

The CMCP261 are used for making direct accelerometer or transducer extension cable entries into a CMCP260 Junction Box. Long cable runs or cables other than actual extension cables should be installed in conduit. Connectors are constructed of Polyamide and provide both environmental sealing and strain relief. The connectors are temperature rated from minus 40°F to +212°F (-60°C to +100°C). They are pressure rated to 150 PSIG.

Ordering Information

CMCP261	XX	Min. OD	Max. OD
	01	0.08" (2mm)	0.20" (5mm)
	02	0.16" (4mm)	0.31" (8mm)
	03	0.20" (5mm)	0.35" (9mm)
	04	0.28" (7mm)	0.47" (12mm)
	05	0.35" (9mm)	0.70" (18mm)
	06	0.51" (13mm)	0.78" (20mm)

CMCP270 Ceramic Wire Nuts

Ceramic wire nuts are recommended for paper machine applications to connect accelerometer extension cables to the CMCP400 20 AWG instrument cable. The wire nuts have no metal parts and are not subject to corrosion.

Ordering Information

CMCP270	Pack of 100 Ceramic Wire Nuts
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CMCP271 Tefzel® Tie Wraps

Tefzel tie wraps are used when high temperatures and harsh environments are a factor. Tefzel tie wraps are rated for -50°F to +302°F (-46°C to +150°C).

Ordering Information

CMCP271	XX	Description
	01	4" Small
	02	7.25" Medium
	03	14.5" Large

CMCP272 Spiral Wrap

Spiral Wrap is recommended for instrument wire protection where it is subject to bending or abrasion. The material is polyethylene.

Ordering Information

CMCP272	XX	Description
	01	3/8" x 80'
	02	1/2" x 65'



CMCP 280 API 670 Accelerometer Housing

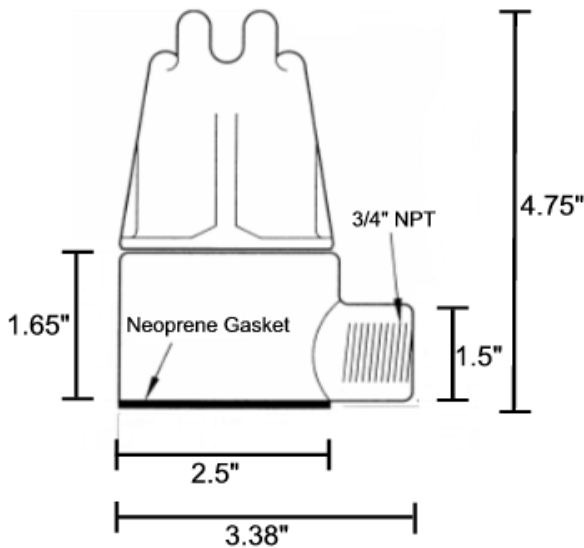
The CMCP 280 case mount accelerometer housing provides physical and environmental protection for several sensors when permanently mounted. Its use is primarily designed for installations where the accelerometer is prone to damage from adverse conditions. When properly installed the CMCP 280 meets API 678 standards.

The mounting kit includes a dome cover, a mounting base with a single 3/4" NPT conduit connection, a neoprene base gasket, O-ring gasket for the cover, mounting bolts, washers, and one (1) 1/2" NPT reducing bushing. The kit does not include the accelerometer.

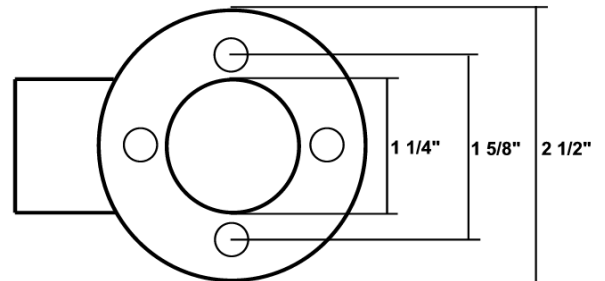
The CMCP 280 will accommodate any sensor that has a diameter less than 1.25" and an installed height of less than 4.75".



Outer Dimensions:



Mounting Dimensions:



Ordering Information:

Part Number	Description
CMCP280	API 670 Accelerometer Housing
CMCP280-01	With Additional 1" Standoff Kit



CMCP203 Pipe Thread Mounting Adaptor

Features:

- Available in 1/2" NPT & 3/4" NPT
- 316 SS
- 1/4"-28 or 5/16"-24 Threaded Hole
- Obtain Meaningful Vibration Data



Why drill a hole when you don't have to. Make use of existing plugged holes on your machine. The CMCP203 Pipe Thread Mounting Adaptor is made of 316 Stainless Steel and surfaced for Accelerometer mounting.

The CMCP203 Pipe Thread Mounting Adaptors provide a mounting location for either magnetically mounted or permanently mounted accelerometers.

They are provided in both 1/2" NPT and 3/4" NPT sizes to accommodate the most common plugs found on most machinery. The adaptors have either a 1/4"-28 or 5/16"-24 threaded hole to mate with the most common accelerometers and vibration transmitters.

Specifications:

Material: 316 SS
Adaptor Surface Finish: 32 μ in. RMS
Adapter Thread: 1/2" NPT or 3/4" NPT
Threaded Hole: 1/4"-28. Or 5/16"-24

Ordering Information:

CMCP203	-XX	-XX	Description
	01		1/2" NPT
	02		3/4" NPT
		01	1/4"-28 Threaded
		02	5/16"-24 Threaded



CMCP205 Motor Fin Mounts

Features:

- Available in Four Sizes
- 416 SS (Magnetic)
- Kits Supplied with Adhesive, Dispenser, Mixing Nozzles
- Obtain Meaningful Vibration Data

Description:

The CMCP205 Motor Fin Mounts provide a mounting location for either magnetically mounted or permanently mounted accelerometers on motors where the bearing housing is not accessible. The Fin Mounts are machined from 416 SS and are adhesive mounted between the cooling fins of the motor. The CMCP205 Fin Mounts are provided in four sizes to accommodate a variety of motors and to keep the amount of required adhesive to a minimum. The CMCP205 can be purchased individually, and are available in kits in quantities of 50 or 100. Kits are supplied with adhesive and mixing nozzles.



Specifications:

Material: 416 SS (Magnetic)
 Pad Thickness: 3/8"
 Pad Surface Finish: 32 μ in. RMS
 Pad Tap: 1/4-28

Ordering Information:

CMCP205	-XX	-XX	Description
	01		1.25" x 0.50"
	02		2.00" x 0.50"
	03		1.75" x 0.25"
	04		1.00" x 0.25"
		50	Kit, Quantity of 50
		100	Kit, Quantity of 100

Optional:

CMCP206	Adhesive Filler
CMCP207	Dispenser
CMCP208	Mixing Nozzle



CMCP 280 API 670 Accelerometer Housing

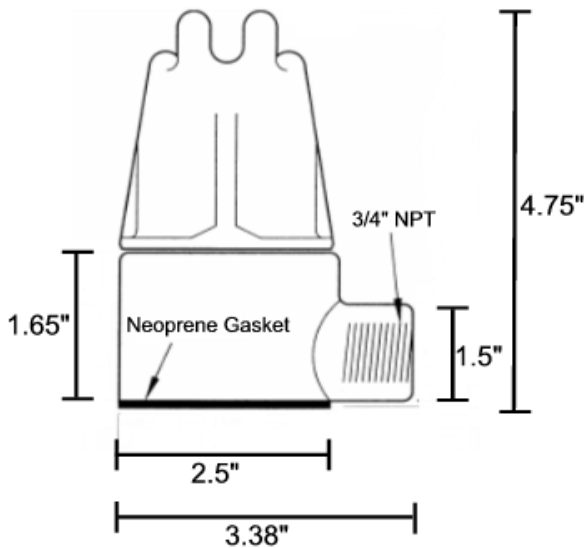
The CMCP 280 case mount accelerometer housing provides physical and environmental protection for several sensors when permanently mounted. Its use is primarily designed for installations where the accelerometer is prone to damage from adverse conditions. When properly installed the CMCP 280 meets API 678 standards.

The mounting kit includes a dome cover, a mounting base with a single 3/4" NPT conduit connection, a neoprene base gasket, O-ring gasket for the cover, mounting bolts, washers, and one (1) 1/2" NPT reducing bushing. The kit does not include the accelerometer.

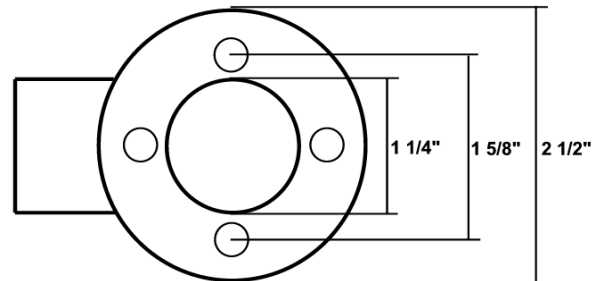
The CMCP 280 will accommodate any sensor that has a diameter less than 1.25" and an installed height of less than 4.75".



Outer Dimensions:



Mounting Dimensions:



Ordering Information:

Part Number	Description
CMCP280	API 670 Accelerometer Housing
CMCP280-01	With Additional 1" Standoff Kit



CMCP-SHAKER Variable-Frequency Portable Shaker System

Portable Shaker Systems are one of the most effective tools in field calibration, alarm verification, and system checking of any machinery vibration system. The CMCP-SHAKER has a built-in reference accelerometer that is traceable to the National Institute of Standards and Technology (NIST). The system complies with API670 and OSHA 1910. It is also conform to ISO9001 quality standard.

The CMCP-SHAKER is useful with its capability to generate broad-band signals for system frequency response tests. For convenience in the field, the portable shaker has a integral rechargeable battery that will maintain hours of operation.

Optional accessories include: linearity calibration kit for eddy-probe systems, dynamic calibration kit for eddy-probe systems, and a battery-charger cable.

Specifications:

Frequency:
10Hz, 20Hz, 40Hz, 80Hz, 160Hz, 320Hz, 640Hz, and 1280Hz (± 0.01 Hz).

Calibration:
Traceable to NIST standard at 100Hz from 2 to 5g.

Power:
Internal: Rechargeable battery with build-in charger
External: 220VAC or 110VAC ($\pm 15\%$) 50W max
Low-power indication, battery charge indication

Display:
3 digit display for acceleration, velocity or displacement

Unit:
Acceleration: g (g)
Velocity: mm/sec (in/sec)
Displacement: um (mil)

Measurement:
Peak (0 – peak; peak-peak)
RMS

Amplitude maximum range (@80Hz):
Acceleration < 10g pk
Velocity < 150 mm/sec pk
Displacement < 2000 um pk-pk



Ordering Information:

CMCP-SHAKER-AXX-BXX-CXX

AXX:
A00: 220 Vac
A01: 110 Vac
BXX: Sensors
B00: Seismic Sensors
B01: Seismic Sensors and Eddy-probes
CXX: Units
C00: Metric, Peak
C01: Metric, RMS
C02: English, Peak
C03: English, RMS

Amplitude accuracy:

Acceleration (3g):
40Hz to 320Hz ± 0.3 dB ± 1 digit
10Hz to 1280Hz ± 0.5 dB ± 1 digit
Velocity (25mm/sec)
40Hz to 320Hz ± 0.5 dB ± 1 digit
Displacement (50um)
40Hz to 320Hz ± 0.5 dB ± 1 digit

Linearity (100gm load):

$\pm 1\%$
Eddy-probe linearity:
Probe: 5mm and 8mm probes
Range: 0 – 4.0mm

Physical:
Size: 10"×7"×10"
Weight: 20lb

Environmental:
Temperature:
Operation: 0° C to 50° C (30° F to 125° F)
Storage: -20° C to 70° C
Humidity:
90% non-condensing



CMCP602L and CMCP603L Accelerometer Extension Cables

Features

- 2 or 3 Pin MIL Spec Connector
- Shielded, Twisted, 20 AWG
- Gray PVC Insulated Cable (80° C)
- Water Tight Connector Backshell

Description

The CMCP602L and CMCP603L extension cables are designed to work with all Accelerometers using a MIL Spec 5015 connector. Both a two wire version (CMCP602L) for standard accelerometers and a three wire version (CMCP603L) for multiparameter accelerometers are available.

Both cables utilize an environmental designed MIL Spec. Connector with a positive seal "O" ring that mates with the MIL-C-5015 connector found on most accelerometers. Connector backshells are fully potted and designed to be water tight. 20 AWG cable is twisted and shielded for EMI and RFI protection.



The CMCP602L and 603L cables are available in three standard lengths of 16', 32' and 64'. Any length desired may be specified and ordered as an option.

The cable connectors are rated to 125° C (257° F) and the PVC cable wire is rated to 80° C (178° F). The cable is well suited to handle temperatures associated with installation near steam piping, manifolds, etc.

The CMCP602L provides a 2-Pin Water Tight Connector and is 0.200" in diameter. The CMCP603L provides a 3-Pin Water Tight Connector and is 0.240" in diameter.

Ordering Information:

CMCP602L	-XX	-XX	-XX	Description
	16			16' Length (4.88m)
	32			32' Length (9.75m)
	64			64' Length (19.51m)
	XX			Specify Length
		01		Without Armor
		02		With Armor
			01	No Terminations
			02	with Spade Lugs
			03	Female BNC

CMCP603L	-XX	-XX	-XX	Description
	16			16' Length (4.88m)
	32			32' Length (9.75m)
	64			64' Length (19.51m)
	XX			Specify Length
		01		Without Armor
		02		With Armor
			01	No Terminations
			02	with Spade Lugs
			03	Female BNC



CMCP602H and CMCP603H High Temp Accelerometer Extension Cables

Features

- 2 or 3 Pin MIL Spec Connector
- Shielded, Twisted, 20 AWG Teflon® Cable (200° C)
- Water Tight Connector Backshell

Description

The CMCP602H and CMCP603H extension cables are designed to work with all Accelerometers using a MIL Spec 5015 connector. Both a two wire version (CMCP602H) for standard accelerometers and a three wire version (CMCP603H) for multiparameter accelerometers are available.

Both cables utilize an environmental designed MIL Spec. Connector with a positive seal "O" ring that mates with the MIL-C-5015 connector found on most accelerometers. Connector backshells are fully potted and designed to be water tight. 20 AWG cable is twisted and shielded for EMI and RFI protection.

Ordering Information:

CMCP602H	-XX	-XX	-XX	Description
	16			16' Length (4.88m)
	32			32' Length (9.75m)
	64			64' Length (19.51m)
	XX			Specify Length
		01		Without Armor
		02		With Armor
			01	No Terminations
			02	with Spade Lugs
			03	Female BNC



The CMCP602H and 603H cables are available in three standard lengths of 16', 32' and 64'. Any length desired may be specified and ordered as an option.

The cable connectors are rated to 125° C (257° F) and the Teflon® cable wire is rated to 200° C (392° F). The cable is well suited to handle temperatures associated with installation near steam piping, manifolds, etc.

The CMCP602H provides a 2-Pin Water Tight Connector and is 0.200" in diameter. The CMCP603H provides a 3-Pin Water Tight Connector and is 0.240" in diameter.

CMCP603H	-XX	-XX	-XX	Description
	16			16' Length (4.88m)
	32			32' Length (9.75m)
	64			64' Length (19.51m)
	XX			Specify Length
		01		Without Armor
		02		With Armor
			01	No Terminations
			02	with Spade Lugs
			03	Female BNC



CMCP604

Low Cost Accelerometer Extension Cables

Features

- **LOW COST**
- **Thermoplastic version of traditional MIL Spec. Connector**
- **Watertight to NEMA 6P, 13, IEC IP67**
- **22 AWG, 100% Shielded, Twisted Cable**
- **Rated to 185° F (85° C)**

Description

The CMCP604 Low Cost extension cables are designed to work with all Accelerometers using a MIL Spec 5015, 2-Pin connector.

The cable uses a molded Zytel (Dupont) MIL Spec. Connector with a positive seal "O" ring that mates with the MIL-C-5015 connector found on most accelerometers. The Connector is CE certified and is designed to be water tight as per NEMA 6P, 13, IEC IP67.

The CMCP604 cables are available in three standard lengths of 5, 10, and 20 meters. Any length desired may be specified and ordered as an option. Cables are blunt cut.

The cable connector and cable wire are both rated to 185° F (85° C).



Extension Cable Ordering Information:

CMCP604	-XX	Description
	05	5 Meter Length
	10	10 Meter Length
	20	20 Meter Length
	XX	Specify Length

Connector Only Ordering Information:

Part No.	Description
CMCP605	MIL-E-QUAL® Connector

Note: You will need a soldering iron, wire stripper and RTV silicone. Use with CMCP606 Bulk Cable.

Bulk Cable Only Ordering Information:

CMCP606	-XX	Description
	XX	Specify Length



CMCP625 2-Pin to BNC Adapter

Features

- *2-Pin to BNC Adapter*
- *Potted backshell and Interfacial O-Ring*

Description

The CMCP625 Adapter converts the MS, 2-Pin 5015 connector found on most industrial accelerometers to BNC. The adapter comes with a completely potted metal backshell and interfacial O-ring for positive sealing to the accelerometer. The CMCP625 may be used to convert permanently mounted accelerometers to a BNC connector or to connect BNC/BNC cables to industrial accelerometers.



Ordering Information:

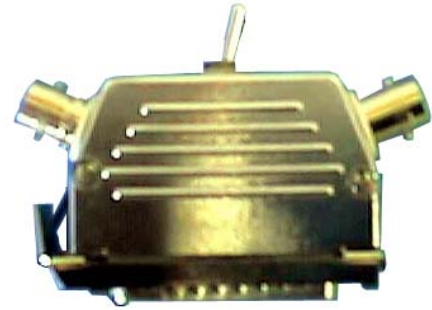
CMCP625	2-Pin to BNC Adapter
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CMCP630 Two Channel (A/B) Adapter

Features

- *Two Channel A/B Switch*
- *Two BNC Connectors*
- *25 Pin to BNC Adapter*
- *2 Plane Balance Accessory*



Description

The CMCP630 is a two channel (A/B) adapter for use with SKF Condition Monitoring's Microlog series of Data Collector's. It provides two BNC input/output connectors for use with two accelerometers. It is ideal for use with the Multi-Plane Balance program resident in the Microlog.

Ordering Information:

CMCP630	Two Channel (A/B) Adapter
---------	---------------------------

CMCP801/805 Eddy Probe Mounting Accessories

CMCP801 Eddy Probe Holder, External Mount



The **CMCP801** Eddy Probe Holder is designed for external mount of proximity probes as described and recommended by API670. External (through the case) mounting allows for easy removal, inspection and adjustment of the proximity probe. The CMCP801 comes with a standard length of 8", and has an adjustment range of $\pm 1.0"$ (2.54 cm). The sleeve may be cut to your required length. Prior to ordering, the insertion depth should be measured or calculated. If the required depth is greater than 8", please call to specify the length needed.

CMCP Part Number			Description
CMCP801	-XXX	-XX	
		080	8.0" Insertion Length
		XXX	Specify Longer
		01	3/8"-24 UNF Probe
		02	1/4"-28 UNF Probe

- Meets API670 external mounting specifications
- 316 Stainless Steel
- Provided with four 3/4" NPT Hubs
- 3/4" NPT Case Entry (Optional 1/2" NPT reduction bushing available)

CMCP805 Eddy Probe Bracket, Internal Mount

The CMCP805 Eddy Probe Bracket eliminate the chore of making special brackets or fixtures for a internally mounted eddy probe installation. Threaded and slotted, the CMCP805 insures a firm grip and stable installation once you have properly positioned the probe.

- Machined aluminum
- Threaded and slotted to insure position and stability

CMCP Part Number		Description
CMCP805	-01	3/8"-24 UNF Probe Body
	-02	1/4"-28 UNF Probe Body





CMCP610 Eddy Probe Calibrator

Features

- *Verify Voltage Output vs. Gap*
- *For use with 5mm & 8mm Probes*
- *Precision Micrometer*
- *4140 Target*
- *Graph Paper & Excel Spreadsheet*

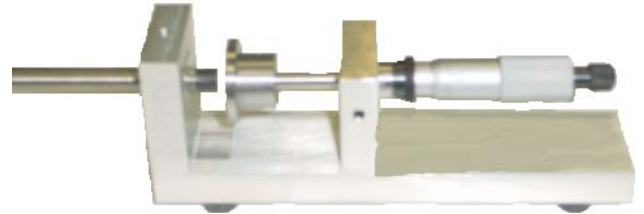
Description

The CMCP610 Eddy Probe Calibrator provides a convenient and precise method of verifying the voltage output vs. physical gap of an Eddy Probe and Driver system.

Designed for use in the field or shop environment, the CMCP610 will work with any manufacturer's 5mm and 8mm probes and is supplied with probe holders to accommodate 1/4-28 and 3/8-24 thread sizes. Any probe case length will fit into the calibrator.

The CMCP610 is supplied with a replaceable industry standard 4140 steel spindle target. Other target materials are available upon request to suit specific shaft material applications.

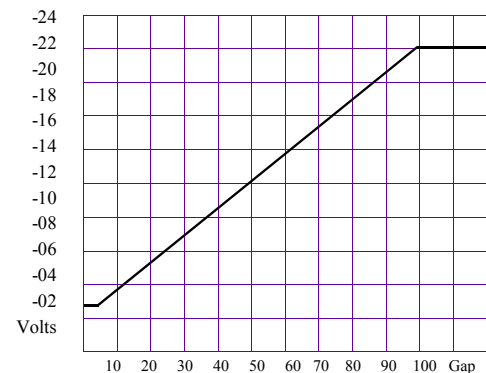
The spindle micrometer is a precision instrument with graduations of 0.001" increments to document the physical gap between the Eddy Probe tip and the spindle target.



Specifications

Dimensions: 6/5" x 2.0" x 3.2"
 Weight: 1.4 lb.
 Target Material: 4140 Steel

Eddy Probe Graph



Ordering Information

CMCP610	-XX	Description
	01	4140 Target
	XX	Specify Target



CMCP265 Series NEMA 4 and 4X Termination Enclosures

CMCP265 Termination Enclosures are offered in NEMA 4 and NEMA 4X. Screw Clamp DIN Rail Mounted terminals are provided for the intermediate termination of Accelerometers, Proximity Probes, Speed Sensors, RTD's, and other transducers.

The **CMCP265FG** NEMA 4X enclosure made of molded fiberglass polyester and is easily punched or drilled. It has outstanding chemical and temperature resistance and physical properties. A seamless foam in-place gasket assures a watertight and dust tight seal. Screw covers are secured with captivated monel cover screws.

The **CMCP265PC** NEMA 4 enclosure is constructed of 14 gauge mild steel and is ANSI 61 gray polyester powder coated on the all surfaces.

The **CMCP265SS** NEMA 4X enclosure is constructed from 14 gauge 304 Stainless Steel. This enclosure will better resist corrosive environments than the CMCP265PC

Steel boxes feature continuously welded seams, ground smooth with no holes or knock-outs. An oil-resistant, in-place gasket assures a watertight and dust tight seal. Stainless Steel screws and clamps are provided.

-XX	Enclosure Dimensions:
06	6.0" H x 6.0" W x 4.0" D (15.24 x 15.24 x 10.16 cm)
12	6.0" H x 6.0" W x 4.0" D (15.2 x 15.2 x 10.2 cm)
24	8.0" H x 6.0" W x 4.0" D (20.3 x 15.2 x 10.2 cm)
36	10.0" H x 8.0" W x 6.0" D (25.4 x 20.3 x 15.2 cm)
48	14.0" H x 12.0" W x 8.0" D (35.6 x 30.5 x 20.3 cm)



CMCP265FB	-XX	Fiberglass NEMA 4X
	06	6 Terminals
	12	12 Terminals
	24	24 Terminals
	36	36 Terminals
	48	48 Terminals

CMCP265PC	-XX	Powder Coated Steel NEMA 4
	06	6 Terminals
	12	12 Terminals
	24	24 Terminals
	36	36 Terminals
	48	48 Terminals

CMCP265SS	-XX	304 Stainless Steel NEMA 4X
	06	6 Terminals
	12	12 Terminals
	24	24 Terminals
	36	36 Terminals
	48	48 Terminals



CMCP300 BNC Junction Boxes

The **CMCP300** series BNC Junction Boxes are multiple channel connecting centers for terminating the outputs of accelerometers or other transducer field wiring. They are normally located in close proximity to the machine to reduce wiring cost and provide convenient access to the vibration signal by a portable data collector or analyzer.



CMCP300FG-04-01

The CMCP300 Series Junction Boxes are available in three (3) versions, "FG" Nema 4x Fiberglass, "PS" Nema 4 Powder Coated Steel and "SS" Nema 4x Stainless Steel. Both internal and external switch/BNC models are available. Internal models are provided with quick access latches and external models with screw covers and protective caps for the BNC fitting. In harsh environments internal models should be specified. Black and white bezel tagging is provided for channel and switch identification.

The **CMCP300FG Fiberglass** NEMA 4X enclosure made of molded fiberglass polyester and is easily punched or drilled. It has outstanding chemical and temperature resistance and physical properties. A seamless foam in-place gasket assures a watertight and dust tight seal. Screw covers are secured with captivated Monel cover screws.

The **CMCP310PC Powder Coated** NEMA 4 enclosure is constructed of 14 gauge mild steel and is ANSI 61 gray polyester powder coated on the all surfaces.

CMCP300FG	X X	XX	Fiberglass NEMA 4X	Dimensions
	01		1 Channel	6.5" x 6.5" x 4.25" (16.5 x 16.5 x 10.8 cm)
	02		2 Channels	6.5" x 6.5" x 4.25" (16.5 x 16.5 x 10.8 cm)
	04		4 Channels	8.5" x 6.5" x 4.25" (21.6 x 16.5 x 10.8 cm)
	06		6 Channels	8.5" x 6.5" x 4.25" (21.6 x 16.5 x 10.8 cm)
		01	Internal BNC	
		02	External BNC	

CMCP300PC	X X	XX	Powder Coated Steel NEMA 4	Dimensions
	01		1 Channel	7.5" x 7.0" x 4.0" (19.05 x 17.78 x 10.16 cm)
	02		2 Channels	7.5" x 7.0" x 4.0" (19.05 x 17.78 x 10.16 cm)
	04		4 Channels	9.5" x 7.0" x 3.5" (24.13 x 17.78 x 8.89 cm)
	06		6 Channels	9.5" x 7.0" x 3.5" (24.13 x 17.78 x 8.89 cm)
		01	Internal BNC	
		02	External BNC	



CMCP300 BNC Junction Boxes

The **CMCP310SS Stainless Steel NEMA 4X** enclosure is constructed from 14 gauge 304 Stainless Steel.

CMCP300SS	XX	XX	Stainless Steel NEMA 4X	Dimensions
	01		1 Channel	7.5" x 5.0" x 4.0" (19.05 x 12.70 x 10.16 cm)
	02		2 Channels	7.5" x 5.0" x 4.0" (19.05 x 12.70 x 10.16 cm)
	04		4 Channels	9.5" x 7.0" x 4.0" (24.13 x 17.78 x 10.16 cm)
	06		6 Channels	9.5" x 7.0" x 4.0" (24.13 x 17.78 x 10.16 cm)
		01	Internal BNC	
		02	External BNC	

CMCP261 Liquid Tight Strain Relief Connectors are used for either extension cable or multi-conductor wire entries into the CMCP310 BNC Junction boxes. Connectors are constructed of Polyamide and provide both environmental sealing and strain relief. The connectors are temperature rated to -40°F to +212°F (-60°C to +100°C) and have a pressure rating of up to 150 PSIG. Check your data sheet for the diameter of your extension cable.

CMCP261FG	XX	Min. O.D.	Max. O.D.
	01	0.08" (2 mm)	0.20" (5 mm)
	02	0.16" (4 mm)	0.31" (8 mm)
	03	0.20" (5 mm)	0.35" (9 mm)
	04	0.28" (7 mm)	0.47" (12 mm)
	05	0.35" (9 mm)	0.70" (18 mm)
	06	0.51" (13 mm)	0.78" (20 mm)



CMCP310 Switchable BNC Junction Boxes

The **CMCP310** Series Switchable BNC Junction Boxes are designed for terminating and switching the outputs of up to 48 accelerometers. They are installed in a location as close to the machine as practical to reduce wiring cost and yet provide convenient safe access to the vibration signal by an operator with a portable data collector or analyzer.



CMCP310PC-06-02

The CMCP310 Series Junction Boxes are available in three (3) versions, "FG" Nema 4x Fiberglass, "PS" Nema 4 Powder Coated Steel and "SS" Nema 4x Stainless Steel. Both internal and external switch/BNC models are available. Internal models are provided with quick access latches and external models with screw covers and protective caps for the BNC fitting. In harsh environments internal models should be specified. Black and white bezel tagging is provided for channel and switch identification.

The **CMCP310FG Fiberglass** NEMA 4X enclosure made of molded fiberglass polyester and is easily punched or drilled. It has outstanding chemical and temperature resistance and physical properties. A seamless foam in-place gasket assures a watertight and dust tight seal. Screw covers are secured with captivated Monel cover screws.

The **CMCP310PC Powder Coated** NEMA 4 enclosure is constructed of 14 gauge mild steel and is ANSI 61 gray polyester powder coated on the all surfaces.

CMCP310FG	XX	X X	Powder Coat Steel NEMA 4	Dimensions
	06		6 Channels	9.5" x 7.0" x 3.5" (24.13 x 17.78 x 8.89 cm)
	12		12 Channels	9.5" x 7.0" x 3.5" (24.13 x 17.78 x 8.89 cm)
	24		24 Channels	15.5" x 13.0" x 6.0" (39.37 x 33.02 x 15.24cm)
	32		32 Channels	17.5" x 15.0" x 6.0" (44.45 x 38.10 x 15.24cm)
	48		48 Channels	17.5" x 15.0" x 6.0" (44.45 x 38.10 x 15.24cm)
		01	Internal BNC	
		02	External BNC	

CMCP310PC	XX	XX	Powder Coat Steel NEMA 4	Dimensions
	06		6 Channels	9.5" x 7.0" x 3.5" (24.13 x 17.78 x 8.89 cm)
	12		12 Channels	9.5" x 7.0" x 3.5" (24.13 x 17.78 x 8.89 cm)
	24		24 Channels	15.5" x 13.0" x 6.0" (39.37 x 33.02 x 15.24cm)
	32		32 Channels	17.5" x 15.0" x 6.0" (44.45 x 38.10 x 15.24cm)
	48		48 Channels	17.5" x 15.0" x 6.0" (44.45 x 38.10 x 15.24cm)
		01	Internal BNC	
		02	External BNC	



CMCP310 Switchable BNC Junction Boxes

The **CMCP310SS Stainless Steel NEMA 4X** enclosure is constructed from 14 gauge 304 Stainless Steel.

CMCP310SS	XXX	XX	Stainless Steel NEMA 4X	Dimensions
	06		6 Channels	9.5" x 7.0" x 4.0" (24.13 x 17.78 x 10.16 cm)
	12		12 Channels	9.5" x 7.0" x 4.0" (24.13 x 17.78 x 10.16 cm)
	24		24 Channels	15.5" x 13.0" x 6.0" (39.37 x 33.02 x 15.24cm)
	32		32 Channels	17.5" x 15.0" x 6.0" (44.45 x 38.10 x 15.24cm)
	48		48 Channels	17.5" x 15.0" x 6.0" (44.45 x 38.10 x 15.24cm)
		01	Internal BNC	
		02	External BNC	

CMCP261 Liquid Tight Strain Relief Connectors are used for either extension cable or multi-conductor wire entries into the CMCP310 BNC Junction boxes. Connectors are constructed of Polyamide and provide both environmental sealing and strain relief. The connectors are temperature rated to -40°F to +212°F (-60°C to +100°C) and have a pressure rating of up to 150 PSIG. Check your data sheet for the diameter of your extension cable.

CMCP261FG	XX	Min. O.D.	Max. O.D.
	01	0.08" (2)	0.20" (5)
	02	0.16" (4)	0.31" (8)
	03	0.20" (5)	0.35" (9)
	04	0.28" (7)	0.47" (12)
	05	0.35" (9)	0.70" (18)
	06	0.51" (13)	0.78" (20)

CMCP500 Series Transmitters/Monitors



- Low Cost
- Din rail mount
- 4-20 mA output
- Sensor fault detection
- Buffered transducer output
- Optional filters
- Alert, Danger & OK Alarms and Relays
- Trip Multiply
- Remote Reset

Description:

The CMCP500 Series are general purpose monitor/transmitters. They are compatible with *vibration and temperature* inputs, they provide a 4-20 mA output proportional to the overall *measurement*. Each unit provides power for the associated transducer, processes the vibration signal to determine overall amplitude, and outputs a 4-20 mA dc current that is proportional to a user specified range such as 0-10 mils or 0-0.5 in/sec. Combining transmitters with an existing PLC or DCS system results in a high density, low cost vibration monitoring system. When specified with the alarm feature, the unit functions as a complete single channel monitor that includes alert and danger alarms, and output relays.

Buffered Output:

A BNC connector mounted on the front of the unit provides access to the buffered transducer output signal. This includes both the unfiltered vibration signal, and the DC bias voltage. Portable test equipment or analyzers can be connected to this output without disturbing other system outputs.

Fault Detection:

On board fault detection circuitry continuously monitors the transducer for normal operation. If a fault occurs, the output current is reduced to 2 mA to indicate the fault to the readout system. A red LED on the front of the unit is turned on to provide a local indication of the fault.

Filters:

For applications that require monitoring specific frequency bands, optional high-pass and low-pass filters can be specified. These filters are modular and can be installed by the factory or in the field. Each module attenuates out-of-band signals at a rate of approximately 24 dB/octave. Corner frequencies from 2 Hz to 20 kHz may be specified. Filter modules may be cascaded to form higher order filters or to create a band-pass response. Filtering does not effect the buffered transducer output.

Alarms:

This monitoring option adds two independent set points, with LED alarm indicators and output relay contacts (Alert and Danger). Set points are adjustable via potentiometer, from 0 to 110% of full scale. Each has an adjustable delay of 1 to 10 seconds. Relay contacts can be independently configured by the user for either Normally Open (NO) (Standard) or Normally Closed (NC) operation. Relays are normally de-energized and can be configured for latching or non-latching (standard) operation. Latched alarms may be reset locally or by remote contact closure. SPST Relay contacts are rated 5 Amps @ 30 Vdc or 250 Vac for resistive loads. The Alarm option also provides set point multiplication of 3X via contact closure (2X available).

Displays And Assemblies:

Various display options, NEMA and explosion-proof enclosures, and assembled multi-channel systems are available. Consult your sales representative.



CMCP500 Series Transmitters/Monitors

Electrical Specifications:

Power: +24 Vdc @ 45 mA max. (30 mA typical at 2 full scale output). Reverse polarity and transient protection included. (With the Alarm/Relay option installed: 75 mA max.)

Frequency Response (Without optional filters): (-3 dB) 2 Hz to 20 kHz.

Buffered Output: BNC Connector 0-20 kHz.

Accuracy: 0.5 % of Full Scale Range.

Output: 4-20 mA proportional to the full scale range.

Maximum Load: 600 Ohms Resistive.

Case: Isolated.

Environmental Specifications:

Operating Temp.: -20°C to +80°C (-4°F to +176°F).

Storage Temp.: -55°C to +125°C (-67°F to +257°F).

Relative Humidity: 0 - 95% Non-Condensing.

Mounting:

32 mm (G style) or 35 mm (T style) DIN Rail.

Ordering Example: To order a standard acceleration monitor that accepts input from a 100 mV/g Accelerometer, such as the SKF-CM CMSS786, with a Full Scale of 10 g with Peak Detection, specify Part Number: CMCP525A-100A-02P.

NOTES:

1. To order factory installed 4-pole filter modules, add the appropriate suffix to the basic part number:

Example: adding suffix -L500 specifies a 4-pole low-pass filter with a corner frequency of 500 Hz (30,000 cpm). Adding suffix -H40 specifies a 4-pole High-Pass filter with a corner frequency of 40 Hz (2400 cpm). Up to two filter modules may be specified. Filter modules can be field installed. If you are unsure about your filter needs, need higher order filters or a band-pass response, consult the factory or your regional sales office for assistance in specifying the correct option numbers.

2. The Full Scale option specified at order entry is used by the factory for initial calibration. However, several other ranges can be jumper selected in the field.

3. Transducer and Full Scale options not listed in the above table are available. Contact your sales representative.



CMCP500 Series Transmitters/Monitors

Ordering Information:

Low Cost Monitor System CMCP500

CMCP500-(aa)-(bb)-(cc)

(aa) Channels

- 01 thru 04, 1-4 Channel System (Specify)
- 05 thru 08, 5-8 Channel System (Specify)
- 09 thru 12, 9-12 Channel System (Specify)

(bb) Enclosure

- F, Fiberglass NEMA 4X Enclosure
- S, Painted Steel NEMA 4 Enclosure
- SS, Stainless Steel NEMA 4X Enclosure
- EX, Explosion Proof Enclosure

(cc) Display

- 01, No Display
- 02, Internal Common Digital Display w/ Switches
- 03, Internal Independent Digital Displays
- 04, External Common Digital Display w/ Switches
- 05, External Independent Digital Displays

DC Power Supply (24 Vdc)CMCP515

CMCP515-(aaa)-(bbbb)-(cc)

(aa) Input Voltage

- 115, 105-125 Vac Input
- 230, 210-250 Vac Input

(bb) Output mA.

- 200, 200 mA Capability
- 350, 350 mA Capability
- 600, 600 mA Capability
- 750, 750 mA Capability
- 1250, 1250 mA Capability
- 2000, 2000 mA Capability
- 5000, 5000 mA Capability

(cc) Enclosure

- N, No Enclosure
- F, Fiberglass NEMA 4X Enclosure
- S, Painted Steel NEMA 4 Enclosure
- SS, Stainless Steel NEMA 4X Enclosure

Acceleration Monitor/Transmitter CMCP525

CMCP525(X)-(aaa)-(bbb)-(ccc)-(dddd)

CMCP525, Acceleration Transmitter

CMCP525A, Acceleration Monitor

(aaa) Input

- 100, 100 mV/g Accelerometer
- Specify, Specify Exact mV/g

(bbb) Full Scale

- 01R, 0 to 5 g, RMS Detection
- 01P, 0 to 5 g, Peak Detection
- 02R, 0 to 10 g, RMS Detection
- 02P, 0 to 10 g, Peak Detection

Specify, Specify in 5 g Increments, Followed by AR@ or AP@

(ccc) High Pass filter

HXX, High Pass Corner Frequency in Hz

(dddd) Low Pass Filter

LXXX, Low Pass Corner Frequency in Hz



CMCP500 Series Transmitters/Monitors

Velocity Monitor/Transmitter CMCP530

CMCP530(X)-(aaaaa)-(bbb)-(ccc)-(dddd)

CMCP530 Velocity Transmitter

CMCP530A Velocity Monitor

(aaa) Input

100A, 100 mV/g Accelerometer

100V, 100 mV/in/sec Velocity Transducer

500EV, 500 mV/in/sec Electro-Mechanical Pick Up

Specify, Specify Exact mV/g or mV/in/sec Followed by A, V, or EV.

(bbb) Full Scale

01R, 0 to 0.5 in/sec, RMS Detection

01P, 0 to 0.5 in/sec, Peak Detection

02R, 0 to 1.0 in/sec, RMS Detection

02P, 0 to 1.0 in/sec, Peak Detection

04R, 0 to 2.0 in/sec, RMS Detection

04P, 0 to 2.0 in/sec, Peak Detection

51R, 0 to 12.5 mm/sec RMS Detection

51P, 0 to 12.5 mm/sec, Peak Detection

52R, 0 to 25 mm/sec, RMS Detection

52P, 0 to 25 mm/sec, Peak Detection

54R, 0 to 50 mm/sec RMS Detection

54P, 0 to 50 mm/sec, Peak Detection

Specify, Specify in 0.5 in/sec Increments, Followed by R or P.

(ccc) High Pass Filter

HXX, High Pass Corner Frequency in Hz

(dddd) Low Pass Filter

LXXX, Low Pass Corner Frequency in Hz

Integrating Velocity Monitor/Transmitter CMCP535

CMCP535(X)-(aaaaa)-(bb)-(ccc)-(dddd)

CMCP535 Integrating Velocity Transmitter

CMCP535A Integrating Velocity Monitor

(aaa) Input

100V, 100 mV/in/sec Velocity Transducer

500EV, 500 mV/in/sec Electro-Mechanical Pick Up

Specify, Specify Exact mV/in/sec Followed by V or EV.

(bb) Full Scale

01, 5 mils Peak to Peak

02, 10 mils Peak to Peak

03, 15 mils Peak to Peak

51, 125 µm Peak to Peak

52, 250 µm Peak to Peak

53, 375 µm Peak to Peak

(ccc) High Pass Filter

HXX, High Pass Corner Frequency in Hz

(dddd) low Pass filter

LXXX, Low Pass Corner Frequency in Hz



CMCP500 Series Transmitters/Monitors

Displacement Monitor/Transmitter CMCP540

CMCP540(X)-(aaa)-(bb)-(ccc)-(dddd)

CMCP540 Displacement Transmitter

CMCP540A Displacement Monitor

(aaa) Input

100, 100 mV/mil

200, 200 mV/mil

Specify, Specify Exact mV/mil

(bb) Full Scale

01, 5 mils Peak to Peak

02, 10 mils Peak to Peak

03, 15 mils Peak to Peak

51, 125 μ m Peak to Peak

52, 250 μ m Peak to Peak

53, 375 μ m Peak to Peak

Specify, Specify in 5 mil Increments

(ccc) High Pass Filter

HXX, High Pass Corner Frequency in Hz

(dddd) Low Pass Filter

LXXX, Low Pass Corner Frequency in Hz

Position Monitor/Transmitter CMCP545

CMCP545(X)-(aaa)-(bb)

CMCP545 Position Transmitter

CMCP545A Position Monitor

(aaa) Input

100, 100 mV/mil

200, 200 mV/mil

Specify, Specify Exact mV/mil

(bb) Full Scale

01, 20-0-20 mils

02, 40-0-40 mils

03, 0-40 mils

04, 0-80 mils

51, 0.5-0-0.5 mm

52, 1.0-0-1.0 mm

53, 0-1.0 mm

54, 0-2.0 mm

Isolated RTD Temperature Monitor/Transmitter CMCP560

CMCP560(X)-(aaaa)-(bb)

CMCP560 Isolated RTD Temperature Transmitter

CMCP560A Isolated RTD Temperature Monitor

(aaaa) Input

100P, 100 Ohm Platinum RTD

(bb) Full Scale

01, 0-250 °F (-18 °C-120 °C)

02, 0-350 °F (-18 °C-175 °C)

03, 0-500 °F (-18 °C-260 °C)



CMCP500 Series Transmitters/Monitors

Thermocouple Temperature Monitor/Transmitter CMCP565

CMCP565(X)-(a)-(bb)

CMCP565 Thermocouple Temperature Transmitter

CMCP565A Thermocouple Temperature Monitor

(a) Input

J, J Type Thermocouple

K, K Type Thermocouple

(bb) Full Scale

01, 0-250 °F (-18 °C-120 °C)

02, 0-350 °F (-18 °C-175 °C)

03, 0-500 °F (-18 °C-260 °C)

Solid State Temperature Monitor/Transmitter CMCP570

CMCP570(X)-(aa)-(bb)

CMCP570 Solid State Temperature Transmitter

CMCP570A Solid State Temperature Monitor

(aa) Input

01, CMSS793T-3 or CMSS793T-1

(bb) Full Scale

01, 0-250 °F (-18 °C-120 °C)

Speed Transmitter CMCP575

CMCP575-(aa)-(bbb)-(cc)

(aa) Input

01, Output From Eddy Current Probe System

02, Hall Effect Sensor (Proximity Switch)

(bb) Counts per Revolution

01, 1 Event per Shaft Revolution

60, 60 Event per Shaft Revolution

120, 120 Event per Shaft Revolution

Specify, Specify Exact Number of Events

(cc) Full Scale

01, 0-1000 RPM

02, 0-2000 RPM

05, 0-5000 RPM

Process Variable Monitor/Transmitter CMCP580

CMCP580(X)-(aa)-(bb)

CMCP580 Process Variable Transmitter

CMCP580A Process Variable Monitor

(aa) Input

01, 1-5 Vdc

02, 0-10 Vdc

03, 4-20 mA

04, 0-20 mA

(bb) Full Scale

01, 0-100%

Specify, Specify Desired Units and Range

CMCP500 Low Cost Monitor System

Features

- **Low Cost**
- **1-12 Channels**
- **Digital Display Option**
- **Optional Enclosures**
- **4-20mA Outputs**
- **Alert & Danger Alarms**
- **Trip Multiply**
- **Transducer Fault Detection**
- **API 670 Compliant**

Description

The CMCP500 is a low cost condition monitoring system. Various options allow the user to configure the system with features and the exact number of channels required for a specific application. The system is based on the CMCP500 series Monitor and Transmitter Modules (specified separately) installed inside an specified enclosure.

API 670 Specification

The CMCP500 series monitor is designed as a low channel count system to meet all the major provisions of API 670 "Third Edition" including: (2) adjustable levels of alarm, fault and alarm LED indication, trip multiply, optional filters, BNC front panel access, 4-20mA output, and adjustable time delay. The optional LED display and DPDT slave relays should be ordered to fully comply with "the" API 670 "specification".

Enclosures

Available enclosures include Fiberglass NEMA4X, Painted Steel NEMA12, Stainless Steel NEMA4X, and cast aluminum for explosion proof requirements. Each can be specified to hold up to 12 Monitor Modules or 24 Transmitter Modules.

Monitor Modules

Monitor Modules are available for monitoring vibration in terms of acceleration, velocity or displacement. Position, Temperature, and Process Input Modules are also available. Each Monitor Module is user specified by model number. Features include RMS, Peak, or Peak to Peak Detection, Buffered Transducer Outputs, Filters, Fault Detection, and Analog Outputs.



**CMCP500 Monitoring
Vibration, Thrust, & Speed**

Alarms

Alarms are provided with Monitor Modules. Transmitter Modules do not have alarms and are usually interfaced directly to a PLC or DCS for trending and alarming. Monitor Modules provide stand alone monitoring capability including Alert and Danger Alarms and SPDT (Single Pole Double Throw) output relay contacts. Alarm Levels and time delays may be independently adjusted. For additional information on alarms, refer to the specific Monitor Module data sheet.

Display Options

The system may be ordered without a display, with a common digital display, or with individual digital displays. A channel selector switch is provided for use with a common display. Common displays are setup to read a specific engineering unit or if multiple parameters are in use, 0-100% of full scale. Individual displays may be set up for specific engineering units or 0-100% of full scale.

Power Options

The CMCP500 system may be powered by a user supplied +24 Vdc, protected source, or from an external Vac/Vdc power supply. The CMCP515 is the recommended power supply and may be housed externally or packaged within the CMCP500 system. It is a linear regulated AC/DC supply that includes over voltage protection, barrier type connection terminals, and a user replaceable fuse. Please refer to the CMCP515 data sheet for additional information.



CMCP500 Low Cost Monitoring System

Ordering Information:

CMCP500	-XX	-XX	-XX	Description
	-01 thru -04			1-4 Channels
	-05 thru -08			5-8 Channels
	-09 thru -12			9-12 Channels
		-F		Fiberglass, NEMA4X, Hinged Door, Quick Release Latches
		-S		Painted Steel, NEMA12, Hinged Door, Lock
		-SS		Stainless Steel, NEMA4X, Hinged Door, Lock
		-EX		Cast Aluminum, Explosion-Proof
			-01	No Display
			-02	Common Display, Internally Mounted Behind Window
			-03	Individual Displays, Internally Mounted Behind Window
			-04	Common Display, Externally Mounted Through Solid Door
			-05	Individual Displays, Externally Mounted Through Solid Door

Note: 1. External Displays are not available with explosion-proof enclosure.
 2. Remember that +24 Vdc power must be supplied by customer or appropriate sized CMCP515 must be ordered separately.

Ordering Example: To order a 4-Channel system in a Fiberglass, NEMA4X enclosure with individual displays behind the door window specify part number **CMCP500-04-F-03**



CMCP500 Series Sample System Enclosures:



Typical Pump or Fan Monitoring System

- CMCP530A Vibration Velocity Monitors
- Common Display with Channel Selector Switch
- NEMA 4X Enclosure



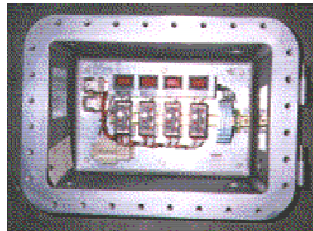
Eddy Probe System

- CMCP530 Vibration Velocity Transmitters
- CMCP545 Eddy Probe Position Transmitters
- CMCP575 Speed Transmitter
- Individual displays, NEMA 4X Enclosure



12 Channels of Vibration Velocity Monitors

- CMCP530A Vibration Velocity Monitors
- Common Display with Channel Selector Switch
- NEMA 4X Enclosure



Solar Gas Turbine Retrofit

- Explosion Proof System
- CMCP530A Vibration Velocity Monitors
- Class I, Div. I, continuous monitoring system for offshore installation
- IS Barriers, Slave Relays, Independent Displays



Wonderware HMI System

- 500 Series Transmitters for X,Y Eddy Probes, Valve Position, Eccentricity, Speed, Keyphasor
- Individual Displays
- Analog to Digital Converter to Ethernet TCP/IP
- Industrial PC, Monitor, Printer, and Wonderware Software

CMCP5304

4 Channel General Machinery Monitor



FEATURES

- Two Levels of Alarm with Relays
- True "OK" Circuitry with Relay
- Adjustable Time Delays
- Trip Multiply
- 4-20mA Output
- Buffered Transducer Output
- Reset Button

DESCRIPTION

The **CMCP5304** is a four channel Vibration Monitor that has been designed for use on typical rotating machinery such as *motors, pumps fans, turbines, compressors, chillers*., etc.

The CMCP5304 accepts inputs from any industry standard 100 mV/g accelerometer, condition's the input signals to velocity and provides a digital display and alarm status indication.

Analog outputs (4-20 mA) are provided for each channel for interface to a PLC or DCS for trending, alarm and operator interface.

The CMCP5304 alarm contacts for the OK circuit, and Alert and Danger may be interfaced to machine control and shutdown systems for a complete vibration protection solution.

The system is a pre-wired turn-key package with panduit, power supply, bright LED display, channel selector switch and reset button. The power supply accepts 110 or 220 VAC, 50 or 60 Hz. The CMCP5304 is available in either an English or Metric configuration.

The standard housing is polyester powder coated steel; rated NEMA 12. An optional Stainless Steel enclosure is rated NEMA 4X.

Electrical Specifications:

Power: Accepts 110 VAC or 220 VAC, 60 or 50 Hz
 Frequency Response: (-3 dB) 2 Hz to 20 kHz.
 Buffered Output: BNC Connector 0-20 kHz.
 Accuracy: 0.5 % of Full Scale Range.
 Output: 4-20 mA proportional to the full scale range.
 Maximum Load: 600 Ohms Resistive per channel
 Case: Isolated.

Environmental Specifications:

Operating Temp.: -20°C to +80°C (-4°F to +176°F).
 Storage Temp.: -55°C to +125°C (-67°F to +257°F).
 Relative Humidity: 0 - 95% Non-Condensing.
 Approvals: NEMA 12, EEMAC, UL508, CSA Type 4, VDE IP66, IEC 529, IP66

Physical Specifications:

Dimensions: 200 mm H x 400 mm W x 150 mm D
 (7.87" H x 15.75" W x 5.90" D)
 Weight: 6.80 Kg (15 lbs)

Ordering Information:

CMCP5304-E	4 Channel, 0-1 in/sec PK
CMCP5304-M	4 Channel, 0-25 mm/sec RMS
CMCP5304-E-SS	4 Channel, 0-1 in/sec PK, Stainless Steel Enclosure
CMCP5304-M-SS	4 Channel, 0-25 mm/sec RMS, Stainless Steel Enclosure
CMCP5304-KEY	Wing Knob Latch with Key
CMCP5304-FOOT	Foot Mounting Kit



CMCP1000 Dual Limit Single Channel Vibration Monitor

Features

- **Solid State Reliability**
- **Integral Sensor**
- **Two Levels of Alarm with Relays**
- **True "OK" Circuitry with Relay**
- **Adjustable Time Delays**
- **Trip Multiply**
- **4-20mA Output**
- **Remote Reset**
- **Bright LED Digital Readout**



Description

The CMCP1000 is a single channel Vibration Monitor with an integral accelerometer packaged in an explosion-proof housing that is suitable for NEC Division I hazardous areas. Designed to comply with rigid API670 standards, the CMCP1000 far exceeds the capabilities of competitive vibration switches.

In addition to the key features listed above, the CMCP1000 offers a buffered transducer output for detailed diagnostics and optional high-pass and low-pass filters to monitor specific frequency bands.

Specifications

Power: +24 Vdc at 90mA maximum
 Frequency Response: 4 Hz to 5KHz
 Analog Outputs: 4-20mA proportional to full scale
 Accuracy: 0.5% of full scale range
 Maximum Load: 600 Ohms resistive
 Operating Temperature: -20° C to +80° C
 Relative Humidity: 0-95%, non-condensing
 Dimensions: 5 7/16" W x 5 5/8" H x 5 5/8" D
 (138mm x 143mm x 143mm)
 Mounting: 3 Bolt Mount (Standard) 3/4" NPT (Optional)
 Approvals: FM, CSA, UL
 Class I (BCD), Class II (E,F,G) Class III

Ordering Information:

CMCP1000	-XXX	-XX	-XX	Description
	001			0-1 in/sec Peak
	002			0-2 in/sec Peak
	025			0-25 mm/sec Peak
	050			0-50 mm/sec Peak
		00		Standard Mount
		01		3/4" NPT Stud Mounting Adapter
			00	Non Latching
			01	Local External Reset Button

CMCP 510 4-20 mA Loop-Powered 3 1/2 Digit Meter

The CMCP 500 loop-powered digital panel meters are complete with a large, easy to read display, and require no external power source. The large 9.4 mm digits exhibit uniform intensity over the entire 4-20 mA operating range. Additionally the total maximum loop voltage drop is only 5V.

Both gain (span) and offset (zero) adjustments are performed with on-board precision, 20 turn potentiometers. All decimal-point and range-change selections are made on a six-position DIP switch featuring vibration-resistant, gold-plated contacts. There are no jumpers or solder gaps to close. Connections to the current loop are made via a reliable, two-position, screw-terminal block.

Specifications

Current Loop Input	Min.	Typ.	Max.	Units
Full Scale Input Range	+4	—	+20	mA
Input Impedance	—	250	—	Ω
Voltage Drop	—	4.0	5.0	V
Over-Current Protection	—	—	+/-40	mA

Performance

Sampling Rate	2.5 Per Sec			
Accuracy (1 min. Warm up)	+/-	0.05%FS	+/-1	Count
Temp. Drift (0-+60°C)	—	+/-0.15	+/-0.3	Cnts/°C

Display

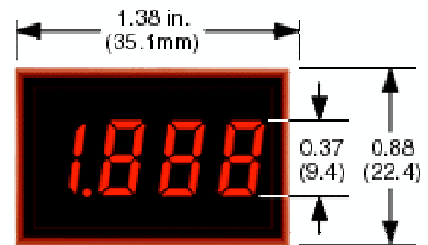
Display Type & Size	3.5 Digit	Red	LED	0.94 mm
Polarity Indication	"-" for Neg.			
Over-Range Indication	"-1__" for Neg.		"1__" for Pos.	

Physical/Environmental

Operating Temperature	0	—	60	*C
Storage Temperature	-40	—	75	*C
Humidity (Non-Condensing)	0	—	95	%
Case Material	Poly-Carbonate			
Weight	0.6 ounces		17 grams	

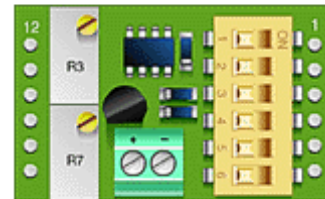


- Large (0.37"/9.4mm), Easy-to-Read LED Displays
- Subminiature 1.38 x 0.88 x 0.48 in. (35 x 22 x 12mm) Package
- Epoxy-encapsulated for Ruggedness



METER DEPTH: 0.48 in. (12mm)

ZERO/OFFSET ADJUST DIP SWITCHES



GAIN/SPAN ADJUST LOOP INPUT

Ordering Information:

	4 mA Input	20 mA Input
CMCP 510	-XXX	-XXX

Example

CMCP 510	00.0	25.0
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CMCP TACH3 Programmable Digital Tachometer

Features

- **5-999,999 RPM Range**
- **1 or Multiple pulses per revolution**
- **4-20 mA Output**
- **Alarm Output**
- **0.56" H, Seven Segment LED**
- **High & Low RPM Recall**
- **Eddy Current Probe Input**



Description

The CMCP TACH3 digital tachometer is designed for a variety of user applications.

The TACH3 is front panel programmable for single or multiple pulses per revolution and scaling. It may be used as Tachometer, Ratemeter, Counter, or a Totalizer. The CMCP TACH3 offers a fixed or floating decimal point and can be supplied with Remote Optical, Infrared, Laser, Proximity, and Magnetic Sensors. It is directly compatible with a TTL input and a 200mV to 50 Vac signal.

The TACH3 has front panel programmable set points, analog voltage and current, TTL and RS232 outputs. The TACH3 is modified to accept a -24 Vdc Eddy Current Probe input. The TACH3 offers more standard features than any other tachometer available.

Enclosures

CMCP will integrate the CMCP TACH3 tachometer into NEMA4, NEMA4X, or Explosion Proof enclosures. Contact your sales representative for details.

Display	0.56" H, Seven Segment Red LED	Power	115 and 230 Vac
Display Update	0.5 Second above 120 RPM	Pulse per Revolution	1 or Multiple
Cutout Size	1.74" X 3.58" (44mm X 91mm)	Alarms	Two Alarms, Programmable
Programmable	Yes	Alarm Contacts	Form C relay contacts rated 1A at 115 Vac
Range	5 - 999,999 RPM	Analog Outputs	Simultaneous 4-2- mA & 0-5 Vdc
Size	1/8 DIN X 7"	Max RPM & Min RPM Recall	
Accuracy	0.001%	Standard Inputs	Magnetic, Proximity, Optical, Laser and Infrared
		Eddy Probe Input	Optional

Ordering Information:

CMCPTACH3	-XX	-XX	Description
	012		12 Vdc
	115		115 Vac
	230		230 Vac
		00	Standard Inputs
		EP	Eddy Current Probe Input



CMCP TACH3-XP Explosion Proof Tachometer

Features

- Front Panel Programmable
- 5-999,999 RPM Selectable Range
- 1 or Multiple Pulses per Revolution
- 0.001% Accuracy
- Alert and Danger Alarms
- 4-20mA and 0-5 Vdc Output
- RS232 Output
- Eddy Current Probe Input
- High & Low RPM Recall
- 0.56" H, Seven Segment LED



Description

The CMCP TACH3-XP is front panel programmable for single or multiple pulses per revolution and scaling. It may be used as a Tachometer, Ratemeter, Counter or Totalizer. The CMCP TACH3-XP offers a fixed or floating decimal point and can be supplied with remote optical, infrared, laser, proximity, magnetic pickup, or eddy current probe sensors. It is directly compatible with a TTL input and 200mV to 50 Vac signal. The CMCP TACH3-XP has front panel programmable alarm set points, 4-20mA, 0-5 Vdc, TTL and RS232 outputs.

Specifications

Input: 200mV to 50 Vac signal
 Range: 5-999,999 RPM
 Alarm Outputs: Form C relays, rated 1A at 115 Vac
 Analog Outputs: 4-20mA and 0-5 Vdc
 Power: 115 Vac, 230 Vac, 12 Vdc, 50/60 Hz
 Dimensions: 7 3/4" W x 7 3/4" L x 11 1/2" D
 Weight: 23 lbs.
 Approvals: CSA, UL
 Class I, Groups C&D
 Class II, Groups E,F,G
 Class III

Ordering Information:

CMCP TACH3-XP	-XXX	-XX	Description
	-012		12 Vdc
	-115		115 Vac
	-230		230 Vac
		-00	Standard Inputs
		-01	Eddy Current Probe



CMCP240 Proximity Probe Speed Sensor

Features:

- Short Barrel
- 3-Wire Hookup
- Meets IP670
- Thick nickel-plated brass barrel
- Wrench flats for easy installation
- Solid potted internal circuitry
- Withstands shocks and water
- High visibility indicator



Specifications:

Supply Voltage	12 to 24 VDC
Sensor Body Style	Metal Cylindrical
Barrel Size	M12
Target Material	Ferrous
Sensing Distance	1.5 mm
Contact Type	No
Amplifier Type	Self-contained
Output Type	NPN
Connection	Pre-wired
Shielded / Unshielded	Shielded
Response Frequency	1.5 kHz

Ordering Information:

CMCP240	Proximity Speed Sensor
---------	------------------------



CMCP420AD8 A/D Converter with MODBUS

Features:

- 8 Channels
- 16 Bit A/D
- RS485 MODBUS RTU or AS-CII
- Dynamic Signal Output
- Interface to PLC or DCS

The CMCP420AD8 is a packaged A/D converter available with MODBUS RTU communications. The unit will accept the 4-20 mA signals from up to eight CMCP420VT loop powered vibration transmitters.

The CMCP420AD8 is a cost effective method of utilizing existing networks within a plant to cost effectively communicate with a PLC or DCS.

Utilizing a plants PLC or DCS allows a Plant Operator to view vibration data in the control room and compare these values to other operating parameters. The Operator can then make intelligent machine operating decisions.

The CMCP420AD8 can communicate 3 kilometers using standard RS485 protocol. Isolated communications ensures high reliability.

The system is designed for easy wiring, and comes with a universal power supply accepting 100 to 250 Vac and either 50 or 60 Hz.

Dynamic Output:

The CMCP420VT provides the dynamic signal output via a BNC connector with a channel selector switch. Should the PLC or DCS detect an increasing vibration trend or an Alarm set-point be exceeded, a technician may interface a portable analyzer such as a Microlog to view and capture dynamic data for detailed analy-



CMCP420AD8-FG shown with (8) CMCP420VT Loop Powered Transmitters.

Ordering Information:

Part No.	-XX	-XX	Description
CMCP420AD8	FG		Fiberglass Enclosure
	PS		Powder Coated Steel Enclosure
	SS		Stainless Steel Enclosure

Part No.	Description
CMCP-RM-232-SETUP	Setup Module

Part No.	-XX	-XX	-XX	Loop Powered Transmitter
CMCP420VT	01			0-1 in/sec RMS
	02			0-2 in/sec RMS
	03			0-25 mm/sec RMS
	04			0-50 mm/sec RMS
	00			1/4-28 (M8) Standard Stud
	01			1/2" NPT Stud Mount Adapter
	02			3/4" NPT Stud Mount Adapter
		00		Without LED Display
		01		With LED Display & BNC
		02		With BNC Adaptor



HMI (Human Machine Interface) Systems With Wonderware Software

Features:

- World's Most Popular HMI
- Machine Mimics
- Hard and Soft Alarms
- Historical and Real-Time Trending
- Current and Historical Alarm Lists
- MODBUS or Ethernet A to D Converters
- Desktop or Rack Mount Touch Screen
- Overall, Rate of Change, and SPC Alarms
- Makes Use of Existing Networks



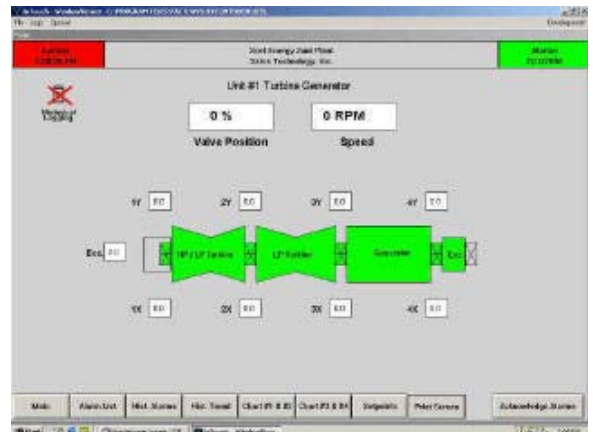
Description:

CMCP is a Wonderware® FactorySuite™ Systems Integrator or SI. Wonderware® is the leading independent developer of industrial automation or HMI (human-machine interface) applications. CMCP has designed applications for TSI (Turbine Supervisory Instrumentation), Turbines, Pumps, Compressors, Cooling Tower Fans and Reciprocating Compressors.

Utilizing a HMI like Wonderware allows a plant operator to view vibration data, or any other data from a 4-20 mA output sensor or transmitter, in the control room and compare these values to other operating parameters such as historical data. Wonderware offers machine mimics with easily programmable hard and soft alarms in overall, rate of change, or SPC. This allows the operator to make intelligent machine operating decisions based on the data in front of them.

Each HMI system includes CMCP's 500 series transmitters, analog to digital converters (in either MODBUS or Ethernet TCP/IP), setup module, programming, and either a desktop PC or a panel mount touch screen computer complete with Windows 2000 and all necessary programming.

Screen Capture From Wonderware:

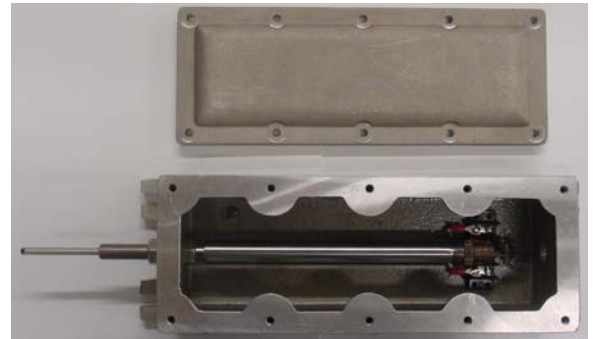




CMCP-LVDT Spring Loaded Displacement Sensor

Features:

- 2" Standard Range
- Rugged Cast Housing
- 0 to $\pm 7.5V$ DC and 4-20 mA outputs
- 24V DC operation
- Adjustable span and zero
- 2 versions, Low and High Temp
- Repeatability of 0.000025 inches
- Chrome plated hardened tool steel tip



Description:

SKF CMCP's Linear Variable Differential Transformers are available in two options. The DC version is rated to 105° C and the transmitter is located inside of the housing. The AC version is rated to 150° C and utilizes an external transmitter. All LVDT's have a 4-20 mA output, and others are available. STI can also manufacture custom LVDT's with a different range, up to 6".

Ordering Information:

CMCP-LVDT-DC	Standard Temp. LVDT
CMCP-LVDT-AC	High Temp. LVDT



CMCP 800 Microlog Field Balancing Kit

At Last, all the accessories you need, packaged in one convenient kit to perform in-place field balancing of rotating machinery. All you need to add is a Microlog.

Features

- Two accelerometers with magnetic bases
- Choice of Optical or Laser Phase Reference Kit
- 25 Foot Cables
- Precision Electronic Balance Scale
- Large Trial Weight Kit
- And More All Packaged in a Rugged Watertight Hard Carrying Case

Include in Each Kit

- CMSS 6155K-0-W Optical Phase Reference Kit or
- CMSS 619K-0-W Laser Phase Reference Kit
- Watertight Hard Carrying Case
- CMSS 6160 Printer Adaptor
- 600 gram Digital Scale
- CMCP 630 Two Channel A/B Switch
- CMSS 2100 Accelerometers (2 each)
- CMCP 625 2-Pin 5015 to BNC Adaptor (2 each)
- 25' BNC/BNC Cables (A and B) (2 each)
- 25' BNC/BNC Cable (Phase)
- CMSS 908-MD Magnet (Accels) (2 each)
- CMSS 6156 Magnet and Goose Neck Kit
- Custom Vise Grips M8 Thread
- Set of Assorted Balance Weights
- Banana to BNC Adaptor (3 each)
- Hex Key Set
- Tape Measure (English/Metric)
- 6" Stainless Steel Rule
- 6" 180* Protractor
- Compass
- Clip Board with Storage



Description

The CMCP Field Balancing Accessory Kit (CMCP800) contains all the accessories necessary to perform in-place field balancing of rotating machinery. This is a complete kit that provides the necessary transducers, magnetic bases, A/B switch, cables, trial weight kit, precision electronic balance scale, and more packaged in a rugged watertight carrying case. The supplied A/B switch makes balancing easier and more accurate as with the flip of a switch, two channels of vibration data can be inputted into the Microlog. This eliminates the need to keep moving the vibration sensor back and forth between balance planes. Also included is a variety of adaptors so that you can hook the Microlog to other sensors such as On-Line Systems and Velocity Probes.

In short all you need to add is a Microlog and you are ready to balance pumps, fans, motors, couplings, small turbines and more.

Ordering Information:

CMCP 800	-01	Field Balancing Kit with Optical Sensor
	-02	Field Balancing Kit with Laser Sensor



CMCP811

Balancing Weight Starter Kit

Features

- **Squirrel Cage Clips**
- **Steel Balancing Clamps**
- **24 Compartment Container**

Description

The CMCP811 provides an assortment of balancing weights and is conveniently packaged as a starter kit. It may be purchased stand-alone and is also available as a component in the CMCP800 Balancing Accessories Kit for Microlog™ users.



CMCP811

Description	Qty	Weight
Squirrel Cage Clips	25	0.6 g (0.02 oz)
	25	0.8 g (0.03 oz)
	25	1.6 g (0.06 oz)
	25	2.4 g (0.08 oz)
	25	3.3 g (0.12 oz)
	25	4.9 g (0.17 oz)
	25	6.5 g (0.23 oz)
	25	9.8 g (0.35 oz)
	25	13.0 g (0.46 oz)

Description	Qty	Throat	Weight
Steel C-Clamps	2	5/16"	.10 oz (2.83 g)
	2	5/16"	.25 oz (7.09 g)
	2	5/16"	.50 oz (14.17 g)
	2	5/16"	.75 oz (21.26 g)
	2	7/16"	1.0 oz (28.35 g)
	2	7/16"	1.5 oz (42.52 g)
	2	5/8"	2.0 oz (56.70 g)
	2	5/8"	3.0 oz (85.05 g)
	2	5/8"	4.0 oz (113.40 g)
	2	3/4"	5.0 oz (141.75 g)
	2	3/4"	6.0 oz (170.10 g)
	2	3/4"	7.0 oz (198.45 g)
	2	3/4"	8.0 oz (226.80 g)

Replacement Weights

Part No.	Squirrel Cage Clips	Price
CMCP-2BC-02	0.2 gram Squirrel Cage Clips	10.00
CMCP-2BC-04	0.4 gram Squirrel Cage Clips	10.00
CMCP-2BC-06	0.6 gram Squirrel Cage Clips	10.00
CMCP-2BC-08	0.8 gram Squirrel Cage Clips	10.00
CMCP-2BC-16	1.6 gram Squirrel Cage Clips	10.00
CMCP-2BC-24	2.4 gram Squirrel Cage Clips	12.50
CMCP-2BC-33	3.3 gram Squirrel Cage Clips	12.50
CMCP-2BC-49	4.9 gram Squirrel Cage Clips	15.00
CMCP-2BC-65	6.5 gram Squirrel Cage Clips	15.00
CMCP-2BC-98	9.8 gram Squirrel Cage Clips	20.00
CMCP-2BC-130	13.0 gram Squirrel Cage Clips	22.00

CMCP-SC-150	7/16" Throat, 1.50 oz.	6.75
CMCP-SC-2	5/8" Throat, 2.0 oz.	7.75
CMCP-SC-3	5/8" Throat, 3.0 oz.	7.75
CMCP-SC-4	5/8" Throat, 4.0 oz.	7.75
CMCP-SC-5	3/4" Throat, 5.0 oz.	8.75
CMCP-SC-6	3/4" Throat, 6.0 oz.	8.75
CMCP-SC-7	3/4" Throat, 7.0 oz.	8.75
CMCP-SC-8	3/4" Throat, 8.0 oz.	8.75



CMCP600 Bearing Fault Demonstrator

Features

- *1700/1400 RPM AC Motor*
- *Quick Bearing Change*
- *Easy to Use*
- *Repeatable Results*
- *Carrying Case*
- *(2) Rolling Element Bearings*
- *(1) "Good Bearing"*
- *(1) "Fault Induced Bearing"*



CMCP600

Description

The CMCP600 is designed to demonstrate vibration measurement techniques that illustrate bearing fault analysis in rolling element bearings. Small and simple to use, the CMCP600 provides fast, reliable and repeatable results. Fault induced bearing has a 0.004" outer race flaw.

Ordering Information:

CMCP600	xx	Description
	01	110 VAC, 60 Hz 1700 RPM
	02	220 VAC, 50 Hz 1400 RPM

Specifications:

Motor: 1/9 HP
 1.4 Amps
 CE Approved
 Dimensions: 5" W x 7 3/4" L x 7" H
 (12.7x19.7x17.8 mm)
 Weight: 23 lbs. (10.4 kg)
 Note: Patent Pending



CMCP601 Rotor Kit

The **CMCP601** Rotor Kits simulate the dynamic motion of a rotating machine in a compact, easy to use package. Ideal for class room or laboratory use, the rotor kit may be used to demonstrate vibration phenomena found in large rotating equipment.

The RDI-601 Rotor Kit allows you to alter parameters such as rotor speed and weight, and to induce malfunctions such as unbalance, shaft bow or rub, and misalignment. Results can be viewed on a variety of portable instrumentation or continuous monitoring systems.

The Rotor Kit comes in two versions: A Short Base 18.5" (470mm) Kit and a Long Base 31" (787mm) Kit. Both versions come with a precision Speed controller which allows you to vary the RPM.

The kit can be supplied with an optional "Driver" mounting plate should you decide to instrument it with eddy current probes and may also be supplied with optional rolling element bearings. Although the standard kit is designed for 110V input, a 230V, 50 Hz version is available upon request.

Measurements may be obtained to study:

- Frequency Based Signals
- Time Based Signals
- Orbital Analysis
- Shaft Runout
- Shaft Bow
- Identify Rotor Critical Speeds
- Resonance Amplitude Factor
- Phase Analysis
- Balancing
- Shaft Relative & Case Absolute
- Rotor Dynamic Studies



- 110 Vac, 60 Hz, Variable Speed Motor
- Precision Speed Controller
- Mass with Holes for Balancing
- Bearing Pedestals Drilled for Accelerometer and Eddy Probes

Ordering Information:

CMCP Part Number			Description
CMCP601	-XX	-XX	-XX
	01		Short Base
	02		Long Base
		00	No Driver Plate
		01	With Drive Plate
			00 No Ball Bearing
			01 With Ball Bearing



CMCP810 Runout Measurement Kit

Features

- *Oscilloscope*
- *Optical Phase Reference Kit*
- *Eddy Probe System*
- *Power Supply*
- *Magnetic Mounts*
- *Vice Grips*
- *Bucking Amplifier*
- *Hard Carrying Case*
- *Optional Software*
- *Optional Gauss Meter*



Description

The CMCP810 Runout Kit will document electrical and mechanical runout present on a shaft. Surface irregularities, Electrical Runout, Residual Magnetism, and Residual Stress Concentrations can all contribute to shaft runout which will create erroneous readings for eddy probe systems.

American Petroleum Institute (API) Standard 670 recommends that "the combined total electrical and mechanical runout does not exceed 25 percent of the maximum allowed peak to peak vibration amplitude or 0.25 mil (6 micrometers), whichever is greater."

The CMCP810 is the ideal tool to document these irregularities and confirm that the shaft surface is within desired specifications for eddy probes to observe.

Ordering Information:

CMCP	-	-	Runout Measurement
	0		Without Software
	0		With Software
		0	Without Gauss meter
		0	With Gauss meter



CMCP400 Series Instrument Cable

CMCP provides high quality instrument cable as a service to our valued customers. These cables are used in various field wiring installations for permanent condition monitoring using CMCP transmitters and monitors. All cables have been carefully reviewed to insure they meet industry specifications and STI application requirements.

CMCP400 High Temperature Bare Copper Pair

The **CMCP400** is High Temperature rated to (200° C); is Teflon® jacketed and insulated, 20 AWG Bare Copper wire, twisted pair instrument cable, with an overall braided shield. For multi-conductor cables, each pair is color coded, individually shielded, and provided with a rip cord for jacket removal. This cable is highly recommended for Paper Machine applications.

CMCP400	-XX	-XXXX	Description:
	01		1 Pair, 0.14" OD (0.36 cm)
	02		2 Pairs, 0.22" OD (0.56 cm)
	03		3 Pairs, 0.30" OD (76 cm)
		XXXX	Length in Feet

Ordering Information:

Maximum Rill Length: 2,500 ft.
Impedance: 41 pf/ft.
Color: Yellow

CMCP410, 415, 420, and 425 Standard Cable

Our standard cable is rated to 105° C, PVC Insulated and jacketed, twisted bare copper wire, and 100% coverage foil shielded with drain wire. The 18 and 20 AWG cables are available in both pairs and triads. They are designed to be installed in conduit or wire-ways with a sunlight resistant outer jacket. Long installation lengths over 250 feet (63.5 m) should use 18 AWG wire to reduce frequency attenuation.

Twisted, shielded pairs cable can be used for recorder outputs, accelerometers, relay output connections, and some system connections.

Twisted shielded triad cables are used for proximity (eddy current) transducer systems, 3 wire accelerometers with temperature measurement, and RTD temperature sensors.

CMCP410, 415, 420, 425 Ordering Information:

Maximum Roll Length: 2,500 ft.
Impedance: 52 pf/ft.
Color: Sunlight Resistant Black

CMCP410	-XX	-XXXX	Description (20 AWG)
	01		1 Pair, 0.23" OD (0.58 cm)
	02		2 Pairs, 0.42" OD (1.07 cm)
	04		4 Pairs, 0.44" OD, (1.12 cm)
	06		6 Pairs, 0.53" OD, (1.35 cm)
	12		12 Pairs, 0.69" OD(1.75 cm)
		XXXX	Length in Feet

CMCP415	-XX	-XXXX	Description (18 AWG)
	01		1 Pair, 0.26" OD (0.66 cm)
	02		2 Pairs, 0.46" OD (1.17 cm)
	04		4 Pairs, 0.51" OD, (1.30 cm)
	06		6 Pairs, 0.60" OD, (1.52 cm)
	12		12 Pairs, 0.84" OD(2.13 cm)
		XXXX	Length in Feet

CMCP420	-XX	-XXXX	Description (20 AWG)
	01		1 Triad, 0.30" OD (0.76 cm)
	04		4 Triads, 0.50" OD(1.27 cm)
	08		8 Triads, 0.57" OD(1.45 cm)
		XXXX	Length in Feet

CMCP425	-XX	-XXXX	Description (18 AWG)
	01		1 Triad, 0.32" OD (0.81 cm)
	04		4 Triads, 0.54" OD(1.37 cm)
	08		8 Triads, 0.67" OD(1.70 cm)
		XXXX	Length in Feet



CMCP400 Series Instrument Cable

CMCP450 LAN Interconnect Cable

The **CMCP450** is used to connect monitoring systems to host computers when using a condition Monitoring vendors proprietary Local Area Network. CMCP450 cable is black, PVC jacketed, 20 AWG Polyethylene insulated wire, twisted pair with 100% foil coverage and 86% covered with tinned braid shielded cable. It is rated to 75° C (167° F).

Ordering Information:

CMCP400	-XXXX	Length in Feet
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Maximum Rill Length: 2,500 ft.
Impedance: 15.5 pf/ft.



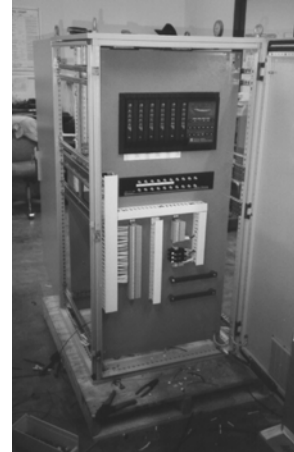
CMCP Custom Cabinets & Panels

Features

- *Integrated Solution*
- *Design, Engineering & Fabrication*
- *Modular or Solid Enclosure*
- *Direct & Intermediate Terminals*
- *Power Distribution*
- *Panduit*
- *AC or Heating As Required*
- *AutoCAD or Intergraph Documentation*

Description

CMCP has provided over 100 integrated custom cabinets and panels containing a wide variety of instrumentation. SKF Condition Monitoring's M800A, Monitor Interface Module (MIM) Multilog (LMU), Mechanical Condition Monitor (MCM), Low Cost Monitor (LCM), and other systems such as Surge Control, and Turbine Governor's, have all been successfully incorporated into free standing cabinets. CMCP custom cabinets and panels are available in many styles, sizes, colors and methods of construction. They can be outfitted with many different accessories depending on your requirements. In general, each cabinet is custom engineered to meet the individual parameters of a specific application. Prewired terminals, power distribution, ground bars, smoke detectors, temperature detectors, tagging and other accessories are provided as required by the customer. Factory Acceptance Test (FAT) and scheduled inspections are also provided as per the customer request. Complete engineering design and documentation packages are available in either AutoCAD or Intergraph format.



M800A Monitor, BNC Panel, Terminals, Power Distribution, Low Noise Configuration, Ground Bars, integrated into Modular Custom Cabinet for ARAMCO by CMCP.



CMCP Integration Shop - League City, TX

Partial Customer Listing include:

Amoco, ARAMCO, BHEL, Black and Veatch, Brown & Root, BHEL, Caltex, Chevron, Dupont, Tejas, and Wylie Labs



CMCP Custom Cabinets & Panels

Note: Due to the custom nature of cabinets and panels, great care is needed to properly specify what is required in the enclosure. The below listed specification matrix is provided as a guide to prepare a specification. To obtain a quotation from CMCP for your enclosure this should be included along with a complete equipment listing of all instrumentation you desire to be integrated into the enclosure.

Specification Matrix:

Indoor Outdoor NEMA4 NEMA4X Modular Solid

Min. Temp. _____ C/F Max. Temp. _____ C/F

Front Access Front & Back Access Front & Left/Right Access

Height _____ Width _____ Depth _____

Power Distribution: Top Bottom 115 Vac 230 Vac 24 Vdc

Terminal Blocks: Direct Intermediate

2-Wire Sensor _____ 3-Wire Sensor _____

Recorder Outputs _____ Relay's Required _____

Paint: OEM Standard Specified _____

Accessories: Smoke Detector Heat Sensor Transport Eyebolts AC Heat

Fan Filter Air Purge Glass Front Door Door Locks

Doors: Left Handed Right handed

Documentation Package: AutoCAD Intergraph Mechanical Package

Electrical Package Field Transducer Interconnect



CMCP Contacts:

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Chris Howard Account Manager choward@stiweb.com
Doug Robertson Chief E.E. dhr111@home.net
Mark Tomlin Shop Supervisor mtomlin@ghg.net
Natalie Henderson Accounting nhenderson@ghg.net

Purchase Orders:

CMCP will accept purchase orders by mail, fax, telephone and e-mail. Domestic USA orders may be sent to your local CMCP representative or distributor, or directly to CMCP in League City, TX.

Credit Cards:

CMCP accepts Visa, Master Card and American Express

Freight:

All freight charges will be added to the invoice for products ordered. CMCP will utilize any shipping agent that the customer specifies.

Warranty:

All CMCP products feature a One Year Warranty against manufacturing defects and workmanship. To send a product back for warranty repair, please contact CMCP prior to shipping to obtain a return authorization number.

