STI Vibration Monitoring Inc.

Vibration Monitoring and Machine Protection Systems

1010 East Main Street, League City, TX 77573 Phone:281.334.0766 Fax: 281.334.4255
www.stiweb.com / www.stiwebstore.com

Condition Monitoring Custom Products

CMCP 1210 Spring Loaded Bearing Temperature Sensor Instructions

Features

- Tip Sensitive RTD or Thermocouple
- For use to 260º C (500º F)
- Adjustable Spring-Loaded Holder with Fluid Seal
- Aluminum Connection Head
- For Bearings, Blocks and Other Solids

The CMCP-1210 series bearing 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.

Temperature range:	-50º to 260º C (-58º to 500º 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

Calculating Insertion Depth and Total Probe Length

To calculate probe length, measure the distance from the bearing housing to the bearing surface. Add 3.6" to this measurement to allow for the 1/2" NPT fitting, or 4.6" for the 3/4" NPT fitting.

A - Insertion Depth: _____

B - Fitting Adder (3.6" or 4.6"): _____

C - Total Probe Length (A+B): _____

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Installing Fitting and Conduit Head

1. Drill and tap bearing housing to 1/2" or 3/4" NPT depending on specific model
2. Install fitting and conduit head

Cutting Probe to Length

1. Remove the Teflon ferrule from the leads end of the probe
2. Mark for proper length
3. Cut using a good quality tubing cutter intended for stainless steel, a better alternative is use of a miniature rotary cut off wheel
4. Cutter must have a sharp edge to prevent "rolling in" during cutting
5. After cutting carefully deburr the cut end
6. Reinstall Teflon ferrule

Inserting Probe Into Spring Loaded Holder

Spring-loaded holders ensure positive contact of probe tips against sensed surfaces. The improved thermal contact provides faster and more accurate thermal response, while the spring helps to dampen vibrations which could damage the probe

1. No special tools are needed
2. Pull out the knurled release knob
3. Insert probe until it bottoms out
4. Release the knob

Ordering Information:

CMCP-1210	Sensor	Ins. Depth	Description
	- PA		Platinum 392, 100 Ohm (US)
	- PD		Platinum 385, 100 Ohm (Meets DIN, EIC, Cl 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")

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www.stiwebstore.com