

CMCP547(A) Differential Expansion Transmitter/Monitor



Transmitter Features:

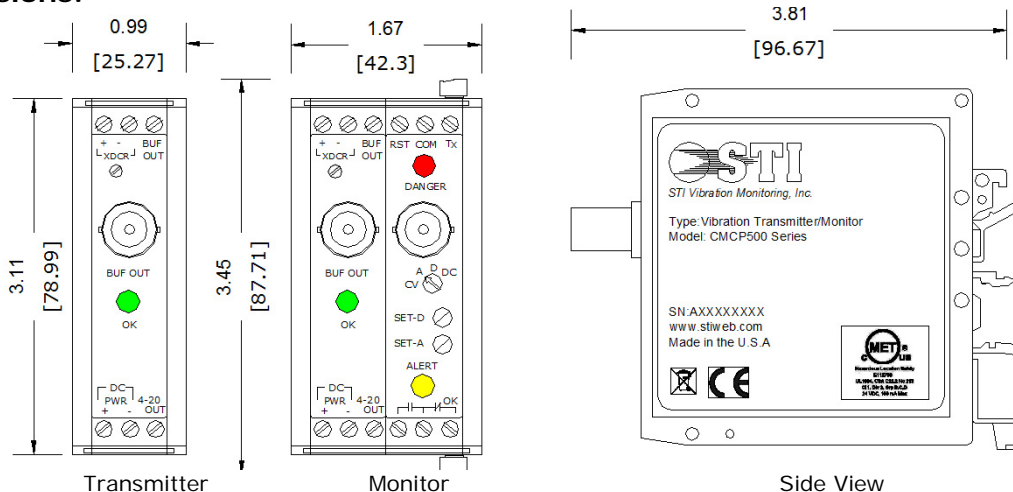
- Differential Output(mils/mm)
- Proximity Probe or LVDT Input
- Ramp or Collar
- Zero Potentiometer
- 4-20mA Output
- Two Buffered Outputs
- CE, RoHS Approved

Monitor Features:

- OK, Alert and Danger Alarms
- 5A @250VAC Relay Outputs
- Latching or Non-Latching Alarms
- Trip Multiply (2x or 3x)
- Selectable Time Delay
- API 670 Compliant

The **CMCP547 Differential Expansion Transmitter** and **CMCP547A Differential Expansion Monitor** are compatible with all industry standard and long range proximity probe systems or LVDT's. Each transmitter measures the proximity probes "DC Gap" or LVDT's voltage that is looking at either a ramp or collar to determine the overall amplitude in terms of Differential Expansion in either mils or millimeters (mm). A 4-20mA DC output proportional to one of the five user selectable ranges can then be sent to the plant's PLC, DCS, SCADA or other control system to allow operations and maintenance staff to view real time machinery health, set alarms and trigger machine shutdowns for scheduled preventative maintenance. An OK Fault Detection Circuit is provided with the 4-20mA output so hardware or power failures can be differentiated by the control system to prevent nuisance alarms and false readings. The CMCP547 can be ordered with the optional alarm module by using the CMCP547A prefix. The optional alarm module provides OK, Alert and Danger alarms along with associated relays, selectable time delays and adjustable set points for standalone API 670 compliant machine protection. A Timed OK Danger Defeat circuit is also provided to prevent unwanted false trips. Multiple transmitters and/or monitors can be combined into a single enclosure or cabinet to create a cost effective, multichannel machine protection system with solid state reliability.

Dimensions:



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Specifications:

Electrical Specifications:	CMCP547
Input:	Standard or Long Range Proximity Probe Systems or LVDT (Specify)
Output:	4-20 mA DC Proportional to Displacement (600 Ohms max. resistive load)
Frequency Response @ -3db	DC
Power:	+24 VDC 50 mA Nominal (100 mA with Alarm Module) Reverse Polarity and Transient Protected
Accuracy:	1% Full Scale
Calibrated Factory Ranges:	0.5, 1.0, 2.0 inch 12.7, 25.4, 50.8 mm
Signal Detection:	DC (Probe DC Gap Voltage or LVDT)
Sensor Power:	Separate -24 VDC Power Supply
OK Circuit:	Green LED (On = OK), Not OK = Off and 4-20 mA < 2.0 mA
Timed OK/Alarm/Danger Defeat:	30 Seconds on Power Up or Loss of OK
Buffered Outputs:	Active Buffer, BNC and Terminal
Optional Filters:	Optional Pluggable High Pass and Low Pass Filters
Case:	Isolated
Terminals:	Screw Type, 24 AWG min, 12 AWG max.
Environmental Specifications:	
Operating Temperature:	-20°C to +80°C (-4°F to +176°F).
Storage Temperature:	-40°C to +95°C (-40°F to +203°F)
Relative Humidity:	0 - 95% Non-Condensing
Mechanical Specifications:	
Mounting:	32 mm (G style) or 35 mm (T style) DIN Rail.
Dimensions:	0.99"W x 3.11"H x 3.81"D (25.27 x 78.99 x 96.67 mm) Transmitter 1.67"W x 3.11"H x 3.81"D (42.3 x 78.99 x 96.67 mm) Monitor
Weight:	0.21 lb./0.40 lb. w/Alarm Module (0.095kg/0.18kg)
Certifications:	CE, RoHS

Optional Alarm Module (Monitor):	CMCP547A
Number of Alarms/Relays	3 – OK, Alert and Danger
Alarm Indication:	OK = Green LED, Alert = Yellow LED, Danger = Red LED
Relay Specification:	3 - Form C, SPDT, 5 Amp 30 VDC/250 VAC, Latching or Non-Latching
Alarm Time Delay:	Separately Selectable 0.1, 1.0, 3.0 6.0 10.0 Seconds
Trip Multiply Function:	Terminal for None, 2X or 3X Alarm Limit Trip Multiply
Reset Function:	Terminal for Remote Reset if Latching Alarms Selected
Bypass Function:	Hold Reset to Common
Display Output:	0-5 VDC Switch Selectable Current Value, Alert and Danger Setpoint

Ordering Information: (See Differential Expansion Application Note Online)

CMCP547	-XXX	-XXX	Differential Expansion Transmitter
CMCP547A	-XXX		Differential Expansion Monitor
	-XXX		Specify Calculated mv/mil
		-XXX	Specify Range Desired (example: 1.0" or 25.4 mm)



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