

Vibration Monitoring and Machine Protection Systems

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CMCP540(A) Radial Vibration Transmitter/Monitor





Transmitter Features:

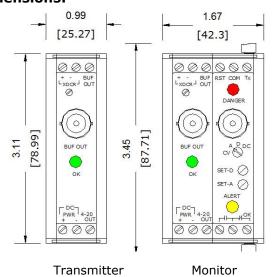
- Displacement Output (mils/um)
- · Proximity Probe Input
- 5 Selectable Ranges
- 4-20mA Output
- Two Buffered Outputs
- Class 1 Division 2, Groups B-D
- CE Approved

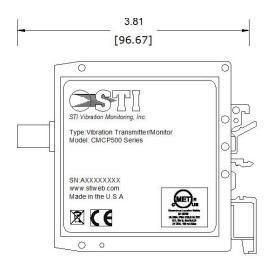
Monitor Features:

- 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 CMCP540 Radial Vibration Transmitter and CMCP540A Radial Vibration Monitor are compatible with industry standard 200 mV/mil (7.87 mu/um) proximity probe systems. The CMCP540 uses a peak to peak detector to provide an output in terms of Displacement (mils or um). The vibration signal is processed into a 4-20 mA output that is proportional to the overall range selected in either mils or um, Peak to Peak. The 4-20mA signal can then be sent to the Plant PLC/DCS or other control system. An OK Fault Detection Circuit is provided along with a Timed OK Danger Defeat Circuit to prevent false alarms. The CMCP540 can be optionally ordered as the CMCP540A Monitor and be equipped with the optional alarm module that provides OK, Alert and Danger Alarms, along with relays, adjustable time delays and adjustable set points for standalone machine protection.

Dimensions:





Side View

CMCP540(A) Radial Vibration Transmitter/Monitor

Specifications:

Electrical Specifications:	CMCP540		
Input:	200 mV/mil (7.87 mV/um) Proximity Probe System		
Output:	4-20 mA DC Proportional to Displacement (600 Ohms max. resistive load)		
Frequency Response @ -3db	2 to 10,000 Hz		
Power:	+24 VDC 50 mA Nominal (100 mA with Alarm Module)		
	Reverse Polarity and Transient Protected		
Accuracy:	1% Full Scale		
Selectable Ranges:	5.0, 10.0, 15.0, 20.0, 25.0 mils		
-	127, 254, 381, 508, 635 um		
Signal Detection:	Peak to Peak		
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 $+80^{\circ}$ C (-4° F to $+176^{\circ}$ 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, CSA & UL Approved Class I Division II B-D		

Optional Alarm Module (Monitor):	CMCP540A
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:

CMCP540	-XXX	Radial Vibration Transmitter
CMCP540A	-XXX	Radial Vibration Monitor
	-200	200 mv/mil (7.87 mV/um) Proximity Probe
	-Specify	Specify Input (Mod Charge Applies)

