

CMCP590(A) Acceleration Enveloping Transmitter/Monitor



Transmitter Features:

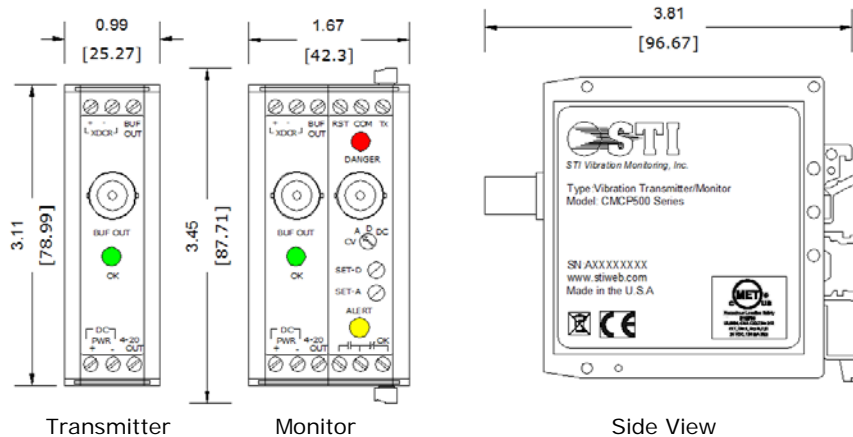
- Enveloping Output (gE)
- Accelerometer Input
- 3 Ranges and 3 Bandwidths
- 4-20mA Output
- Two Buffered Outputs
- Class 1 Division 2, Groups B-D
- CE Approved

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 **CMCP590 Enveloping Transmitter** and **CMCP590A Enveloping Monitor** are compatible with all industry standard 100mV/g IEPE Accelerometers. Each transmitter provides constant current power for the associated sensor and processes the signal through one of three filter sets. A 4-20mA DC output proportional to one of the five user selectable ranges in "gE" 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 CMCP590 can be ordered with the optional alarm module by using the CMCP530A 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:	CMCP590
Input:	100 mV/g Accelerometer Other Sensitivities Available Upon Request
Output:	4-20 mA DC Proportional to Velocity (600 Ohms max. resistive load)
Selectable Filter Bandwidths:	Filter #2: 50 to 1,000 Hz Filter #3: 500 to 10,000 Hz Filter #4: 5,000 to 40,000 Hz
Power:	+24 VDC 50 mA max. Transmitter (100 mA max. Monitor) Reverse Polarity and Transient Protected
Accuracy:	1% Full Scale
Selectable Ranges:	10.0, 30.0 or 80.0 gE
Signal Detection:	Enveloping
Sensor Power:	Internal 4.4 mA Constant Current Diode (Selectable Off/On)
OK Circuit:	Green LED (On = OK), Not OK = Off and 4-20 mA < 2.0 mA
Timed OK Danger Defeat:	30 Seconds on Power Up or Loss of OK (Alert and Danger)
Buffered Outputs:	Active Buffer, BNC and Terminal
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, CSA & UL Approved Class I Division II B-D

Optional Alarm Module (Monitor):	CMCP590A
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:

CMCP590	Enveloping Transmitter
CMCP590A	Enveloping Monitor



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