

### Vibration Monitoring and Machine Protection Systems

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## CMCP525(A) Acceleration Transmitter/Monitor





#### **Transmitter Features:**

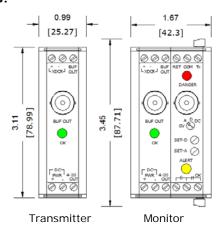
- Acceleration Output (g's)
- Accelerometer Input
- 5 Selectable Ranges
- 4-20mA Output
- Two Buffered Outputs
- Class 1 Division 2, Groups B-D
- CE Approved

#### **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 CMCP525 Acceleration Transmitter and CMCP525A Acceleration Monitor are compatible with all industry standard IEPE Accelerometers. Each transmitter provides constant current power for the associated sensor and processes the signal through a True Peak or True RMS detector to determine the overall amplitude in terms of Acceleration. 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 CMCP525 can be ordered with the optional alarm module by using the CMCP525A 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:**





Side View

# CMCP525(A) Acceleration Transmitter/Monitor

## Specifications:

Electrical Specifications:	CMCP525		
Input:	100 mV/g IEPE Accelerometer (-100)		
•	Other Sensitivities Available On Request		
Output:	4-20 mA DC Proportional to g's Acceleration (600 Ohms max. resistive load)		
Frequency Response @ -3db	2 to 20,000 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 g's		
Signal Detection:	RMS or Peak		
Sensor Power:	Internal 4.4 mA Constant Current Diode		
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, CSA & UL Approved Class I Division II B-D		

Optional Alarm Module (Monitor):	CMCP525A		
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:**

CMCP525	-XXX	-X	Acceleration Transmitter
CMCP525A	-XXX	-X	Acceleration Monitor
	-100		100 mv/g Accelerometer Input
	-Specify		Specify Input (Mod Charge May Apply)
		-P	Peak Detection
		-R	RMS Detection

