

CMSS590(A) Series Transmitter/Monitor



- Enveloped Acceleration
- Selectable Filters
- Low Cost
- Din rail mount
- 4-20 mA output
- Sensor fault detection
- Buffered transducer output
- Alert, Danger & OK Alarms and Relays
- Trip Multiply
- Remote Reset

Description:

The CMSS590(A) Series are enveloped transmitters/monitors. They are compatible with piezo, voltage accelerometer inputs, they provide a 4-20 mA output proportional to the overall measurement. Each unit provides power for the associated transducer, processes the vibration signal to determine overall amplitude, and outputs a 4-20 mA dc current that is proportional to a user specified range such as 50 Hz to 1.0 kHz detection. Combining transmitters with an existing PLC or DCS system results in a high density, low cost vibration monitoring system. When specified with the alarm feature, the unit functions as a complete single channel monitor that includes alert and danger alarms, and output relays.

Buffered Output:

A BNC connector mounted on the front of the unit provides access to the buffered transducer output signal. This includes both the unfiltered vibration signal, and the DC bias voltage. Portable test equipment or analyzers can be connected to this output without disturbing other system outputs.

Fault Detection:

On board fault detection circuitry continuously monitors the transducer for normal operation. If a fault occurs, the output current is reduced to 2 mA to indicate the fault to the readout system. A red LED on the front of the unit is turned on to provide a local indication of the fault.

Alarms:

This monitoring option adds two independent set points, with LED alarm indicators and output relay contacts (Alert and Danger). Set points are adjustable via potentiometer, from 0 to 110% of full scale. Each has an adjustable delay of 1 to 10 seconds. Relay contacts can be independently configured by the user for either Normally Open (NO) (Standard) or Normally Closed (NC) operation. Relays are normally de-energized and can be configured for latching or non-latching (standard) operation. Latched alarms may be reset locally or by remote contact closure. SPST Relay contacts are rated 5 Amps @ 30 Vdc or 250 Vac for resistive loads. The Alarm option also provides set point multiplication of 3X via contact closure (2X available).

Displays And Assemblies:

Various display options, NEMA and explosion-proof enclosures, and assembled multi-channel systems are available. Consult your sales representative.



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Electrical Specifications:

Power: +24 Vdc @ 45 mA max. (30 mA typical at 2 full scale output). Reverse polarity and transient protection included. (With the Alarm/Relay option installed: 75 mA max.)

Frequency Response: Filter Selectable

Buffered Output: BNC Connector

Accuracy: 0.5 % of Full Scale Range.

Output: 4-20 mA proportional to the full scale range.

Maximum Load: 600 Ohms Resistive.

Case: Isolated.

Environmental Specifications:

Operating Temp.: -20°C to +80°C (-4°F to +176°F).

Storage Temp.: -55°C to +125°C (-67°F to +257°F).

Relative Humidity: 0 - 95% Non-Condensing.

Mounting:

32 mm (G style) or 35 mm (T style) DIN Rail.

Ordering Information:

CMSS590(X)-(aaaa)-(b)

CMCP590 Enveloped Acceleration Transmitter

CMCP590A Enveloped Acceleration Monitor

(aaaa) Input

100A, 100 mV/g Piezo, Voltage Output Accelerometer

(b) Filter Selection

02, H50 Hz - L1.0 kHz Filter

03, H0.5 Hz - L10 kHz Filter

04, H5.0 Hz - L40 kHz Filter