

CMSS 2200/ CMSS 2200-M8

Low Profile Standard Acceleration Sensor ...



... Incorporating the latest in technology to meet the demanding CE, EMC and low level noise requirements.

Using detailed knowledge acquired from many years of supplying high quality sensors to a broad spectrum of industry users, SKF Condition Monitoring offers rugged accelerometers designed for the Pulp and Paper, Petrochemical, Steel, Mining and Construction, Metal Working, and Machine Tool Industries.

FEATURES

- *For use with the SKF Local Monitoring Unit (LMU's) On-Line Systems, Protection Systems and the ever versatile Portable Data Collection Instruments.*
- *Rugged, economical, and all around general purpose sensor.*
- *Sensitivity, 100 mV/g to optimize use in multiple applications.*
- *Exceptional bias voltage (BV) stability at elevated temperatures.*
- *Designed for exceptional low noise level for low frequencies at elevated temperatures.*
- *Meets stringent CE, EMC requirements.*
- *Low profile for side industrial accelerometer with captive mounting bolts (1/4–28, M6 x 1.00 or M8 x 1.25) provided.*
- *Corrosion resistant and hermetically sealed.*
- *Reverse polarity wiring protection.*

SPECIFICATIONS

Specifications conform to ISA-RP-37.2 (1-64) and are typical values referenced at +75°F (+24°C), 24 Vdc supply, 4 mA constant current and 100 Hz.

DYNAMIC

Sensitivity: 100 mV/g

Sensitivity Precision: $\pm 10\%$ at +77°F (+25°C)

Acceleration Range: 80 g peak

Amplitude Linearity: 1%

Frequency Range: $\pm 10\%$; 1.0 Hz to 5,000 Hz
 ± 3 dB; 0.7 Hz to 10,000 Hz

Resonance Frequency: Mounted, minimum 22 kHz

Transverse Sensitivity: $\leq 5\%$ of axial

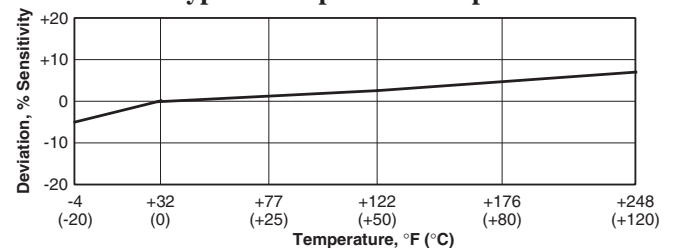
ELECTRICAL

Power Requirements:

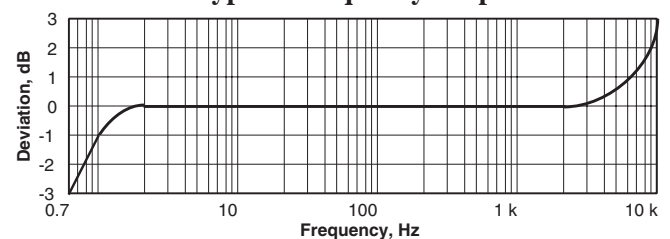
Voltage Source: +18 Vdc to +30 Vdc

Constant Current Diode: 2 to 10 mA dc, recommended 4 mA

Typical Temperature Response



Typical Frequency Response



CMSS 2200/CMSS2200-M8 Low Profile Standard Acceleration Sensor

SPECIFICATIONS (continued)

ELECTRICAL (continued)

Electrical Noise: 2.0 Hz; 20 $\mu\text{g}/\sqrt{\text{Hz}}$

Output Impedance: < 100 Ohms

Voltage Bias: 12 Vdc

Grounding: Case isolated, internal shielding

ENVIRONMENTAL

Temperature Range: -58°F to +248°F (-50°C to +120°C) operating temperature

Vibration Limits: 500 g peak

Shock Limit: 5,000 g peak

Electromagnetic Sensitivity, Equivalent g: 70 $\mu\text{g}/\text{Gauss}$

Sealing: Hermetic

Base Strain Sensitivity: 200 $\mu\text{g}/\text{microstrain}$

CE: According to the Generic immunity standard for Industrial Environment EN50082-2.

Acceptance Criteria: The generated "false equivalent g level" under the above test conditions should be less than 2 milli g peak to peak.

PHYSICAL

Dimensions: See drawing

Weight: \approx 5.10 oz. (145 gms)

Case Material: 316L stainless steel

Mounting: Captive mounting bolts provided. One (1) 1/4-28 English thread and one (1) M6 x 1.00 Metric thread.

Mounting Torque: 30 in-lbs, 3.4 N-m

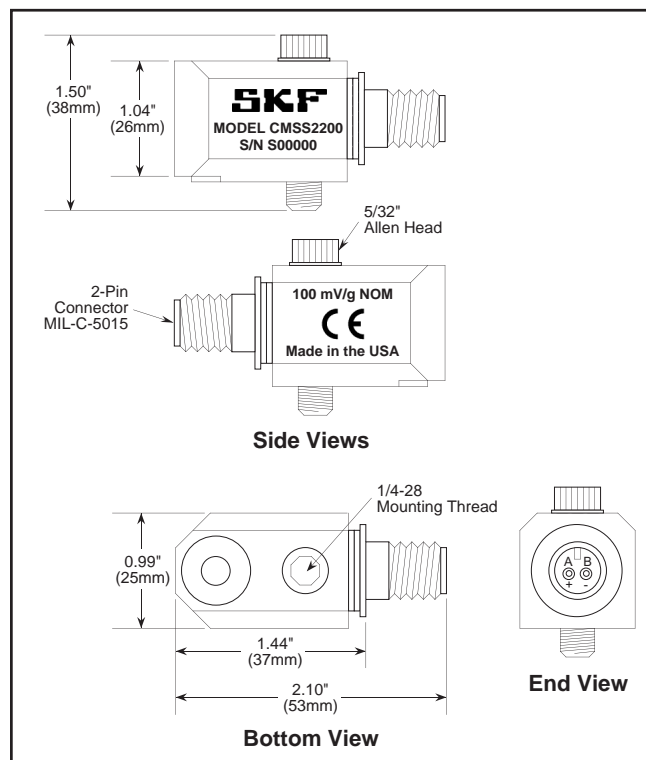
Connector: **Pin A:** Signal/Power (White Wire)

Pin B: Common (Black Wire)

Mating Connector: CMSS 3106F-10SL-4S or equivalent

Recommended Cable: Two conductor shielded, teflon jacket, 30 pF/ft (100 pF/m)

DIAGRAMS



ORDERING INFORMATION

CMSS 2200 Low Profile Acceleration Sensor with side exit C5015 two (2) pin connector.

1/4-28 and M6 mounting studs provided. Calibration sensitivity is provided on each accelerometer package with nominal sensitivity etched on each unit.

CMSS 2200-M8 Low Profile Acceleration Sensor with side exit C5015 two (2) pin connector.

M8 mounting stud provided. Calibration sensitivity is provided on each accelerometer package with nominal sensitivity etched on each unit.

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SKF Reliability
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ISO 14001 Certified

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