

CMSS 2207

Superior accelerometer, side exit

The CMSS 2207 accelerometer is a multi-purpose sensor with an elevated temperature resistance to extend life and performance in applications that are known to provide a challenging hot environment. The sensor is most commonly deployed in the following industries:

- Pulp and Paper – dryer sections
- Mineral Processing – ovens and kilns
- Metalworking – hot rolling mills

Features

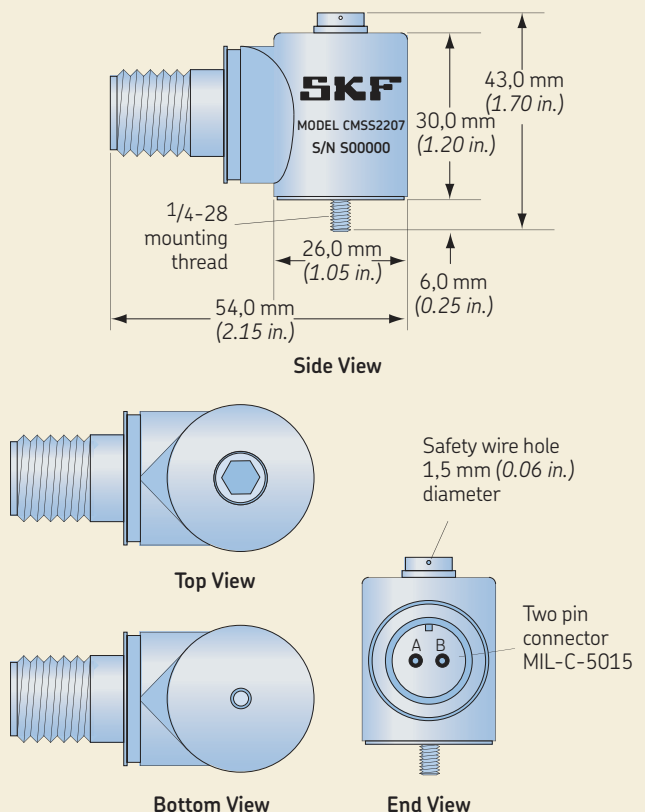
- Optimal for use with SKF on-line system IMx-S and all portable data collection instruments
- Rugged, economical and all around high temperature, general purpose sensor for up to 150 °C (300 °F) operating temperature
- 100 mV/g sensitivity to optimize use in multiple applications
- Exceptional bias voltage (BV) stability at elevated temperatures
- Designed for exceptional low noise level over a wide temperature range
- Meets stringent CE, EMC requirements
- Captive mounting bolts (1/4-28, M6 × 1,00 or M8 × 1,25) provided
- Corrosion resistant and hermetically sealed for installation in high humidity areas
- Reverse polarity wiring protection

Recommended connector/cable assembly

- CMSS 932 series

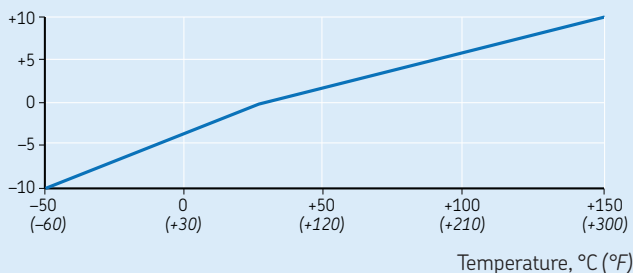


Dimensions



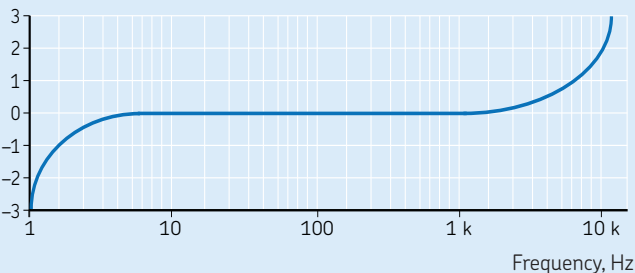
Typical temperature response

Deviation, % sensitivity



Typical frequency response

Deviation, dB



Specifications

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

Dynamic

- Sensitivity: 100 mV/g
- Sensitivity precision: $\pm 10\%$ at 25 °C (75 °F)
- Acceleration range: 50 g peak
- Amplitude linearity: $\leq 1\%$, up to full scale
- Frequency range:
 - $\pm 5\%$: 4,0 to 5 000 Hz
 - $\pm 10\%$: 3,0 to 7 000 Hz
 - ± 3 dB: 1,0 to 11 000 Hz
- Resonance frequency, mounted, nominal: 20 kHz
- Transverse sensitivity, maximum: $\leq 5\%$ of axial
- Temperature response: See graph

Electrical

- Power requirements:
 - Voltage source: 24 V DC nominal, 18 to 30 V DC
 - Constant current diode: 2 to 4 mA, recommended 4 mA
- Electrical noise:
 - 2,0 Hz: 30 $\mu\text{g}/\sqrt{\text{Hz}}$
- Output impedance: $< 100 \Omega$
- Bias output voltage:
 - 12 V DC at 25 °C (75 °F)
 - 11 V DC at 150 °C (300 °F)
- Grounding: Case isolated, internally shielded

Environmental

- Temperature range: -50 to +150 °C (-60 to +300 °F) operating temperature
- Vibration limit: 500 g peak
- Shock limit: 2 500 g peak
- Electromagnetic sensitivity, equivalent g, maximum: $< 5 \mu\text{g}/\text{gauss}$
- Base strain sensitivity: 100 $\mu\text{g}/\mu\text{strain}$
- CE: According to the generic immunity standard for Industrial Environment EN 50082-2
 - Acceptance criteria: The generated “false equivalent g level” under the above test conditions should be less than 2 mg measured peak to peak

Physical

- Dimensions: See drawing
- Weight: 145 g (5.1 oz.)
- Case material: 316L stainless steel
- Mounting: M6 $\times$ 1,0 and 1/4-28 captive mounting bolts provided
- Mounting torque: 3,4 Nm (30 in. lbs.)
- Connections:
 - Pin A: Signal/Power
 - Pin B: Common
- Mating connector: CMSS 932-68LC or CMSS 932-68TL, two pin, IP 68, locking collar or twist lock
- Recommended cable: CMSS 932-SY-XXM and CMSS 932-DY-XXM, two conductor, twisted pair, single or double shielded, yellow

Ordering information

CMSS 2207 Superior accelerometer, side exit with MIL-C-5015 two pin connector.

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