

# CMSS 797T-1

## Superior sensor, ring mode, side exit, acceleration and temperature

The CMSS 797T-1 is a higher precision accelerometer that also offers an in-built measurement of the temperature of the mounting point surface. The sensor is most applicable in the following industries:

- Power Generation (Fossil, Nuclear, Hydro) – pumps and fans, where regulatory expectations may require a higher vibration precision

The surface temperature measurement is good for rolling element (anti-friction) bearing housings and small journal bearing housings. Temperature measurements in large journal bearings should use established measurement locations.

### Features

- Optimal for use with the SKF on-line system DMx, IMx-S, IMx-M and all portable data collection instruments
- Measures both temperature and acceleration
- Rugged construction
- Hermetically sealed
- Case isolated
- Meets stringent CE, EMC requirements
- ESD protection
- Reverse wiring protection

### Recommended connector/cable assembly

- CMSS 933 series

### Specifications

#### Dynamic

- Sensitivity: 100 mV/g
- Sensitivity precision:  $\pm 5\%$  at 25 °C (75 °F)
- Acceleration range: 80 g peak
- Amplitude non-linearity: 1%
- Frequency range:
  - $\pm 5\%$ : 3,0 to 5 000 Hz
  - $\pm 10\%$ : 2,0 to 7 000 Hz
  - $\pm 3$  dB: 1,0 to 12 000 Hz
- Resonance frequency, mounted, nominal: 26 kHz
- Transverse sensitivity:  $\leq 5\%$  of axial
- Temperature response: See graph
- Temperature output sensitivity:  $\pm 5\%$  of 10 mV/°K
- Temperature measurement range: –50 to +120 °C (–60 to +250 °F)



### Electrical

#### Accelerometer

- Power requirements:
  - Voltage source: 18 to 30 V DC
  - Constant current diode: 2 to 10 mA
- Electrical noise:
  - Broadband:
    - 2,5 Hz to 25 kHz: 600  $\mu$ g
  - Spectral:
    - 10 Hz: 8  $\mu$ g/ $\sqrt$ Hz
    - 100 Hz: 5  $\mu$ g/ $\sqrt$ Hz
    - 1 000 Hz: 5  $\mu$ g/ $\sqrt$ Hz
- Output impedance:  $< 100 \Omega$
- Bias output voltage: 12 V DC
- Grounding: Case isolated, internally shielded

### Dimensions



