SKF CMSS 85系列速度传感器

High temperature velocity sensor

The CMSS 85 series is a self-generating type velocity sensor mainly for use in the following industries:

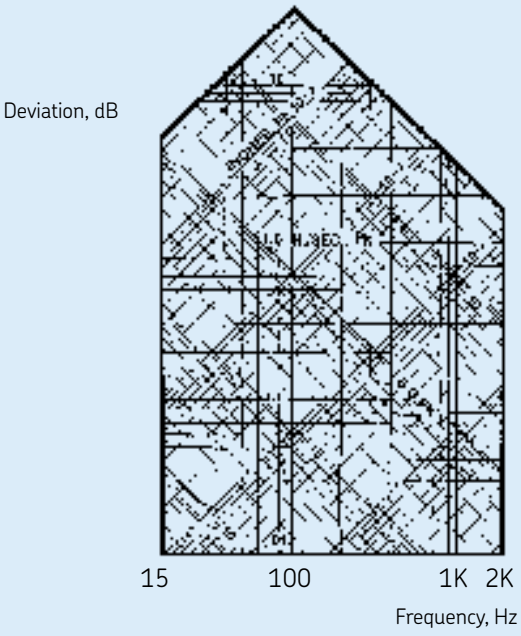
- Oil and Gas
- Refining
- Petrochemicals
- Power Generation

Corporate standards and practices in these industries often require the use of velocity transducers. The use of self-generating velocity sensors are often preferred by gas turbine original equipment manufacturers (OEM's). The CMSS 85 series is designed for the high temperature environment of the gas turbine casing and uses a friction-free, directionally independent design to maximize life and minimize error.

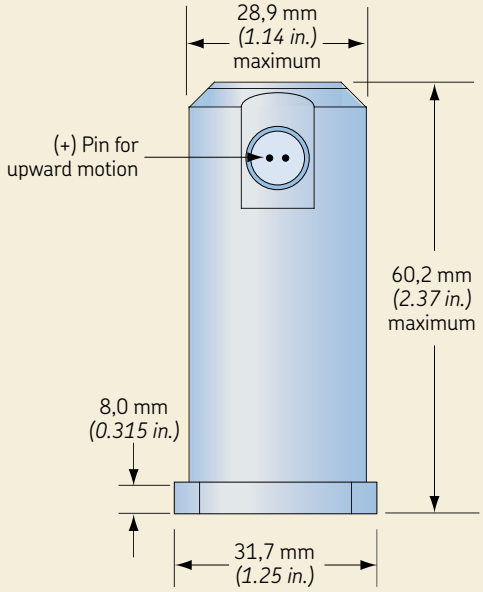
Features

- Typical use on gas turbine engines
- Zero friction coil
- Hermetically sealed

Response limits



Dimensions



Specifications

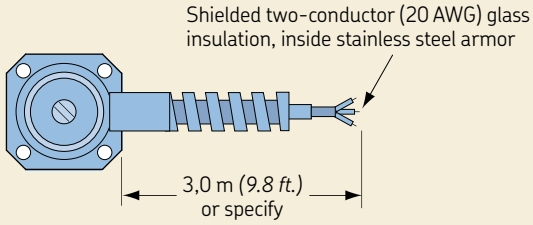
- Axis orientation: Any
- Sensitivity: 145 mV/in./s
- Sensitivity precision: ±5%
- Sensitivity versus temperature: Less than 0,02%/°C *(0.01%/°F)*
- Cross axis sensitivity: Less than 10%
- Acceleration range: 0 to 50 g
- Frequency range: 15 to 2 000 Hz
- Temperature limits: See temperature range table
- Displacement limits: 1,8 mm pk-pk *(0.07 in. pk-pk)*
- Damping (electromagnetic):
  - At 20 °C *(70 °F)*: 0,80
  - At 200 °C *(390 °F)*: 0,55
  - At 375 °C *(710 °F)*: 0,40
- Case to coil isolation:
  - At 20 °C *(70 °F)*: 100,0 MΩ minimum
  - At 200 °C *(390 °F)*: 10,0 MΩ minimum
  - At 375 °C *(710 °F)*: 1,0 MΩ minimum
- Sealing: Hermetic
- Dimensions: See drawing
- Weight: 213 g *(7.5 oz.)*
- Case material: Stainless steel

Temperature range

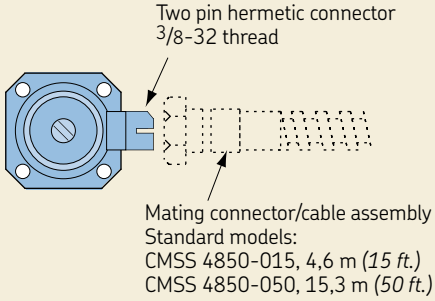
Model number	Temperature range	Coil resistance	Termination
CMSS 85-9	–55 to +375 °C *(–65 to +710 °F)*	125 Ω	Two pin hermetically sealed connector
CMSS 85-10	–55 to +375 °C *(–65 to +710 °F)*	125 Ω	Integral cable, 4,6 m *(15 ft.)*

Cable configurations

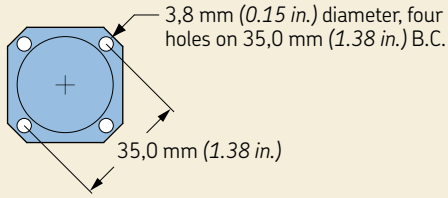
Fixed cable configuration



Connector configuration



Bottom view



Notes:

- The "015" in the model number of the cables designates the cable length. If other cable lengths are desired, specify the length in feet (i.e., 020, 025, etc.). It is preferred that cable lengths be ordered in increments of five feet, i.e., 015, 020, 025, etc.
- The termination of the cable end opposite the mating to the velocity transducer is trimmed wire only.
- The cable mating connectors are custom designed and proprietary assembled by the vendor and consequently are not available for on-site cable fabrication.

Agency approvals for hazardous area

CMSS 85-9

Class I, Division 1, Groups A, B, C, D

CSA

Must be connected to CSA Certified Zener Barrier rated 22 V maximum, 300 Ω minimum, or 14 V maximum, 50 Ω minimum.

CMSS 85-10

Class I, Division 1, Groups A, B, C, D

CSA

Must be connected to CSA Certified Zener Barrier rated 22 V maximum and 300 Ω minimum, or 14 V maximum and 50 Ω minimum.

Ordering information

CMSS 85-9 High temperature velocity sensor, up to 375 °C *(710 °F)*.
CMSS 85-10 High temperature velocity sensor with integral cable, up to 375 °C *(710 °F)*.

Cables:

- **CMSS 4850-015** Armored 4,6 m *(15 ft.)* cable that mates to the CMSS 85-9 velocity sensor with the two pin connector.
- **CMSS 4850-015-593** Unarmored 4,6 m *(15 ft.)* cable with only 0,6 m *(2 ft.)* of the cable having armor at the velocity sensor end of the cable. This cable mates to the CMSS 85-9 velocity sensor with the two pin connector.