BENTLY NEVADA TECHNICAL DOCUMENT

Product Data Sheet

190501-10-00-00

01 PRODUCT IDENTIFICATION

Manufacturer	Bently Nevada
Model	190501-10-00-00
Family	190501 Velomitor CT
Product type	Velomitor CT Velocity Transducer

02 VERIFIED TECHNICAL DATA

Mounting hardware option	10: M6x1 plate stud with 3/8-in 24 adapter
Connection option	00: MIL-C-5015 connection interface
Agency approval option	00: No approvals
Sensitivity	3.94 mV/mm/s (100 mV/in/s), +/-5%
Frequency response	3-900 Hz +/-1 dB; 1.5-1000 Hz +/-3 dB
Velocity range	63.5 mm/s peak; high-frequency limits apply
Amplitude linearity	+/-2% to 63.5 mm/s peak
Output bias voltage	10.1 V DC +/-1.0 V; Pin A relative to Pin B

03 REMAINING TECHNICAL DATA

Dynamic output impedance	Less than 400 ohm, typical
Transverse response	Less than 5% of axial sensitivity
Operating temperature	-40 to +85 deg C
Storage temperature	-40 to +100 deg C
Case material	316L stainless steel
Mounting torque	4.5 N m +/-0.6 N m
Humidity limit	100% condensing; non-submerged

04 TECHNICAL AND APPLICATION NOTES

The 190501-10-00-00 measures low-frequency casing vibration on cooling-tower and air-cooled heat-exchanger fan assemblies operating at or above 90 rpm. It also detects vibration generated by the fan motor and speed reducer. The selected mounting code 10 supplies an M6x1-to-M6x1 plate stud with a 3/8-in 24 adapter. Connection code 00 specifies a MIL-C-5015 interface; final code 00 specifies no agency approvals. Do not apply the family hazardous-area certifications to this unapproved configuration.

05 APPLICATIONS

- Cooling-tower fan casing vibration: evaluate low-speed fan vibration through a suitable mounting location.
- Air-cooled heat-exchanger fans: measure casing velocity where the structure transmits the relevant rotor vibration.
- Fan drive-train assessment: include motor and speed-reducer vibration within the stated sensor response limits.

06 INSTALLATION CONTROL

Confirm 190501-10-00-00, the M6x1 plate stud and 3/8-in 24 adapter. Obtain complete manual 125389-01 for procedures not supplied in this data sheet.