

Velomitor CT / Product Dashboard

190501-09-00-04

CASING VIBRATION VELOCITY

A low-frequency velocity transducer for cooling-tower and air-cooled heat-exchanger fan assemblies. The 09/00/04 execution specifies its plate stud, connector and approval option.

Order code / mount 09

Plate stud, 3/8-24 to 1/4 NPT

Order code / connection 00

MIL-C-5015, two-pin interface

Sensitivity

3.94 mV/mm/s (100 mV/in/s), $\pm 5\%$

Response, ± 1 dB

3 to 900 Hz

Mount on a bearing housing or casing that transmits the rotor vibration of interest; validate the installed channel response.

Capability Map

190501-09-00-04

Measurement	Casing vibration velocity	Output bias	10.1 Vdc ±1.0 Vdc, A relative to B
Sensitivity	3.94 mV/mm/s (100 mV/in/s), ±5%	Dynamic impedance	<400 ohms, typical
Response, ±1 dB	3 to 900 Hz	Broadband noise	0.229 mm/s peak, 1.5 Hz to 1 kHz
Response, ±3 dB	1.5 Hz to 1 kHz	Operating temperature	-40 to +85 C
Velocity range	63.5 mm/s peak	Storage temperature	-40 to +100 C
Amplitude linearity	±2% to 63.5 mm/s peak	Humidity	100% condensing, non-submerged
Transverse response	<5% of axial sensitivity	Case	316L stainless steel
Mounted resonance	At least 9 kHz, stud mounted	Mounting torque	4.5 ±0.6 N m

These performance limits are specified by the 141636 Rev. AF datasheet; operating outside limits can cause false readings or loss of monitoring.

Applications and Integration

190501-09-00-04

Cooling tower fan At or above 90 rpm; 100–300 rpm typical.	Air-cooled heat exchanger Fan assembly casing vibration velocity.
Fan motor Motor-related vibration frequency components.	Speed reducer Reducer-related vibration frequency components.

MEASUREMENT PATH



Engineering Decisions

190501-09-00-04

What does 190501-09-00-04 sense?

Casing vibration velocity at the selected machine mounting point.

What is the 09 mounting execution?

A plate stud from 3/8-24 at the transducer to 1/4 NPT at the machine.

How is 190501-09-00-04 connected?

The 00 connection is a two-pin MIL-C-5015 interface.

What is its low-frequency response?

1.5 Hz to 1 kHz within ± 3 dB; 3 to 900 Hz within ± 1 dB.

Which bias voltage is expected?

10.1 Vdc ± 1.0 Vdc, pin A relative to pin B.

Which machine points are suitable?

A bearing housing or machine casing that transmits the vibration of interest.

CONTROLLED RELEASE

Verify the installed identity, stud, connector, polarity, bias and accepted casing-vibration response before the machine returns to service.

Source and Related Portfolio

190501-09-00-04

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07 Bently Nevada 74712-06-12-04-04	08 Bently Nevada 9200-03-02-02-00	09 Bently Nevada 9200-01-02-02-00
10 Bently Nevada 74712-06-03-04-00	11 Bently Nevada 106765-25	12 Bently Nevada 330701-00-25-90-02-00

MANUFACTURER SOURCE RECORD

Baker Hughes / Bently Nevada, 190501 Velomitor CT Transducer Datasheet, 141636 Rev. AF (2026).

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190501-09-00-04