

190501-10-00-00

Velomitor CT Velocity Transducer

Bently Nevada 190501-10-00-00 is a Velomitor CT velocity transducer. It measures machine-case vibration velocity for compatible condition and protection monitoring channels.

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190501-10-00-00

Manufacturer	Bently Nevada
Product name	Velomitor CT Velocity Transducer
Product family	Velomitor CT Transducer System
Part number	190501-10-00-00
Country of origin	USA

Core system roles

- 1

Measures absolute machine-case velocity
- 2

Provides a conditioned dynamic velocity signal with DC bias
- 3

Supports long cable runs to compatible monitoring inputs
- 4

Operates in any mounting orientation when rigidly coupled

Engineering note

Install 190501-10-00-00 on a rigid prepared surface using the specified M6 stud arrangement and torque. Confirm shield practice, bias voltage, polarity and velocity response before accepting the channel.

1. Technical data

Official manufacturer values for the complete product record are arranged below for engineering review.

Sensitivity	3.94 mV/mm/s (100 mV/in/s), +/-5%
Frequency response	3 to 900 Hz, +/-1 dB
Extended frequency response	1.5 Hz to 1 kHz, +/-3 dB
Velocity range	63.5 mm/s peak
Overrange	101.6 mm/s peak
Amplitude linearity	+/-2% to 63.5 mm/s peak
Mounted resonance	9 kHz minimum
Bias voltage	10.1 Vdc +/-1.0 Vdc
Broadband noise	0.229 mm/s peak
Maximum cable length	305 m

Operating temperature	-40 to +85 degC
Storage temperature	-40 to +100 degC
Shock resistance	5000 g
Relative humidity	100%
Case material	316L stainless steel
Connector	2-pin top MIL-C-5015
Mounting stud	M6 x 1 to M6 x 1 with 3/8-24 adaptor
Mounting torque	4.5 +/-0.6 N m
Mounting orientation	Any orientation
Approval option	None

Configuration verification

Complete model	190501-10-00-00
Official product family	Velomitor CT Transducer System
Primary source	190501 Velomitor CT Transducer Datasheet — 141636 Rev. AF
Installation record	Physical marking and installed interfaces retained

2. Functions, components and applications

Interface 1	compatible Velomitor input channel
Interface 2	M6 mounting stud and 3/8-24 adaptor
Interface 3	two-conductor shielded cable
Interface 4	rigid bearing-housing mounting surface

Compressor casing vibration	Measures absolute machine-case velocity
Pump bearing-housing velocity	Provides a conditioned dynamic velocity signal with DC bias
Motor vibration monitoring	Supports long cable runs to compatible monitoring inputs
Gearbox absolute vibration	Operates in any mounting orientation when rigidly coupled

Related Apter Power product pages

Current model	190501-10-00-00
Product family	Velomitor CT Transducer System
Source record	190501 Velomitor CT Transducer Datasheet — 141636 Rev. AF

Integration statement

Bently Nevada 190501-10-00-00 is a Velomitor CT velocity transducer. It measures machine-case vibration velocity for compatible condition and protection monitoring channels.

3. Precautions and return-to-service evidence

- 1

Verify the complete 190501-10-00-00 code and stud option before work.
- 2

De-energize or isolate the connected monitor input before handling wiring.
- 3

Use a clean flat mounting surface to preserve high-frequency response.
- 4

Apply the specified mounting torque without side-loading the transducer.
- 5

Maintain cable shield continuity according to the installed monitor drawing.
- 6

Confirm the 2-pin connector is clean, dry and mechanically secure.
- 7

Verify bias voltage and broadband noise before the functional test.
- 8

Compare the as-left velocity response with the established machine baseline.

Commissioning evidence matrix

Identity	Full 190501-10-00-00 marking confirmed
Installed component	compatible Velomitor input channel
Paired hardware	M6 mounting stud and 3/8-24 adaptor
Primary duty	Compressor casing vibration
Functional test	Measures absolute machine-case velocity
Release record	Diagnostics and as-left response retained

Compressor casing vibration	Verify the measures absolute machine-case velocity response under controlled conditions
Pump bearing-housing velocity	Verify the provides a conditioned dynamic velocity signal with dc bias response under controlled conditions
Motor vibration monitoring	Verify the supports long cable runs to compatible monitoring inputs response under controlled conditions
Gearbox absolute vibration	Verify the operates in any mounting orientation when rigidly coupled response under controlled conditions

4. Engineer FAQ and controlled source record

Which system components should be checked with 190501-10-00-00?	Confirm the installed compatible Velomitor input channel, M6 mounting stud and 3/8-24 adaptor and the assigned monitoring or connection point are the documented combination for 190501-10-00-00.
How should wiring or cabling for 190501-10-00-00 be recorded?	Record conductor identity, shield termination, connector orientation, cable route and the as-found diagnostic state before disconnecting 190501-10-00-00.
What installation control is important for 190501-10-00-00?	Use the model-specific mounting arrangement, protect mating surfaces and maintain the documented cable support and mechanical clearance for 190501-10-00-00.
How is 190501-10-00-00 checked during commissioning?	Apply the approved controlled test for compressor casing vibration, verify polarity or direction where applicable, and compare the measured response with the configured channel.

Can parameters from a similar model be used for 190501-10-00-00?	No. Retain only values and configuration details that apply directly to the complete 190501-10-00-00 ordering code and installed system.
What maintenance evidence should be retained for 190501-10-00-00?	Retain the full 190501-10-00-00 identity, as-left mounting and connections, continuity or bias checks, diagnostics and the final functional-test result.
What should be verified before returning 190501-10-00-00 to service?	Confirm secure mounting, connector integrity, restored configuration, stable signal behavior and the intended response of the associated monitoring channel.
What must be matched before replacing 190501-10-00-00?	Match the complete 190501-10-00-00 marking, velomitor ct velocity transducer, installed mounting or connector execution and the approved equipment record before removal.

Source identifiers

Manufacturer	Bently Nevada / Baker Hughes
Official document	190501 Velomitor CT Transducer Datasheet
Publication / revision	141636 Rev. AF
Applied product	190501-10-00-00