190501-00-00-CN

Low-Frequency Piezo-Velocity Transducer

Bently Nevada 190501-00-00-CN is a low-frequency piezo-velocity transducer with no supplied mounting stud and a MIL-C-5015 connection.

190501-00-00-CN executive product dashboard

Low-speed machinery coverage

The 1.5 Hz lower band supports fan assemblies operating at or above 90 rpm.

Velocity-proportional output

The 100 mV/in/s sensitivity feeds a compatible seismic monitoring channel directly.

Mounting selected at site

Option 00 supplies no stud, so the approved mounting hardware remains an installation decision.

Published Overview

190501-00-00-CN uses the Velomitor CT response for cooling-tower and air-cooled heat-exchanger fan assemblies while retaining its CN-marked supply identity.

Exact order-code identity

Transducer family	190501 Velomitor CT	**Frequency response**	3.0 to 900 Hz, +/-1.0 dB
Mounting hardware option	00 - No stud	**Extended frequency response**	1.5 Hz to 1.0 kHz, +/-3.0 dB
Connection option	00 - MIL-C-5015 interface	**Velocity range**	63.5 mm/s peak
Sensitivity	3.94 mV/mm/s (100 mV/in/s), +/-5%	**Amplitude linearity**	+/-2% to 63.5 mm/s peak

190501-00-00-CN is optimized for casing-velocity measurement on cooling towers and air-cooled heat-exchanger fan assemblies. It covers the running-speed region of typical 100 to 300 rpm machines while also retaining motor and speed-reducer content.

Low-Frequency Piezo-Velocity Transducer technical capability map

Transverse response	Less than 5% of axial
Mounted resonant frequency	9 kHz minimum
Output bias voltage	10.1 +/-1.0 Vdc
Dynamic output impedance	Less than 400 ohms typical
Noise floor	0.229 mm/s peak, 1.5 Hz to 1 kHz

Maximum cable length	305 m
Operating temperature	-40 to +85 deg C
Connector	2-pin 316L stainless-steel MIL-C-5015
Mounting torque	4.5 +/-0.6 N m
Configuration suffix	CN - retain exact delivered marking

Installed signal or connection path



Mechanical relationship	190501-00-00-CN is optimized for casing-velocity measurement on cooling towers and air-cooled heat-exchanger fan assemblies. It covers the running-speed region of typical 100 to 300 rpm machines while also retaining motor and speed-reducer content.
Electrical or interface relationship	Its solid-state piezo-velocity output is scaled at 100 mV/in/s and biased at 10.1 Vdc. A compatible channel must preserve the two-pin MIL-C-5015 interface, polarity and cable loading rather than treating the transducer as a passive moving-coil sensor.
Acceptance boundary	Option 00 omits a mounting stud, so the installed mounting adapter and surface become project controls. The CN suffix must remain on the exact identity and any approval claim follows the delivered certification marking.
Controller platform reference	Confirm 190501-00-00-CN against the installed drawing and applicable Bently Nevada instructions.
Technical source	Bently Nevada 190501 Velomitor CT Transducer Datasheet 141636 Rev. AF

Integration, applications and compatibility for 190501-00-00-CN

System and supply context	Low-speed monitoring context: 190501-00-00-CN is the velocity transducer only; mounting hardware, interconnect cable and monitor channel are separate unless itemized.
Application scope	Application scope: Apply 190501-00-00-CN to casing points on low-speed fan trains where the 1.5 Hz response and installed mounting arrangement are documented.

Application fit decisions

Cooling-tower fan trains

Measure casing velocity at fan, motor or speed-reducer bearing housings.

Air-cooled heat exchangers

Retain low-frequency running-speed content from large slow fan assemblies.

Any-angle sensor orientation

Install in the approved axis while preserving polarity and surface quality.

Long cable monitoring

Use the documented two-conductor connection within cable-loading limits.

Product precautions

Select mounting hardware deliberately

Option 00 includes no stud; verify the approved adapter before installation.

Preserve polarity

Record Pin A and Pin B orientation relative to the measurement axis.

Control the cable load

Use the approved cable and protect the MIL-C-5015 connector from strain.

Avoid rigid local resonance

Mount on the bearing housing or machine casing with a prepared surface.

Retain the CN identity

Photograph the complete marking and certification label.

Validate low-speed response

Compare bias and velocity trend at representative operating speed with the accepted baseline.

Compatibility decision	Use the exact installed drawing, target, companion hardware and receiving channel when accepting 190501-00-00-CN.
Substitution boundary	Related product references are navigation aids and do not establish interchangeability or equivalent performance.

190501-00-00-CN Buyer information and installed-base record

Lifecycle status	190501-00-00-CN is the no-stud, MIL-C-5015 execution of the low-frequency Velomitor CT transducer. The CN-marked complete reference has no asserted factory phase in the applicable technical record.
Replacement boundary	Preserve the 100 mV/in/s velocity scale, 10.1 Vdc bias, two-pin connection and the installed mounting adaptor selected for option 00. A conventional moving-coil sensor or a studded variant changes both circuit behavior and mechanical installation.
Supply boundary	The offered item is the 190501-00-00-CN transducer body. Because option 00 supplies no mounting stud, the adaptor, mating cable and any housing parts must be confirmed separately in the quotation.

Available-unit identity	Match 190501-00-00-CN on the nameplate and confirm the no-stud mounting execution together with the two-pin 316L stainless-steel connector.
Physical review	Inspect the connector shell and pins, mounting face, case condition and CN certification label; record the installed adaptor thread before the existing sensor is removed.
Included-item boundary	one 190501-00-00-CN Velomitor CT transducer without a supplied mounting stud; adaptor and mating cable only when expressly listed

Technical notes

Application focus	Low-frequency casing velocity on cooling-tower and air-cooled heat-exchanger fan assemblies
Connection boundary	MIL-C-5015 interface with mounting stud supplied separately
Technical reference	Bently Nevada 190501 Velomitor CT Transducer Datasheet 141636 Rev. AF

Alternative names

Complete identity variant 1	Bently Nevada 190501-00-00-CN
Complete identity variant 2	Low-Frequency Piezo-Velocity Transducer 190501-00-00-CN

Engineering FAQ for 190501-00-00-CN

Why can 190501-00-00-CN resolve low-speed fan-train vibration?	Its response extends to 1.5 Hz at the wider tolerance band, covering the running-speed region of machines operating at or above 90 rpm.
How should the receiving channel for 190501-00-00-CN be scaled?	Use 100 mV/in/s sensitivity, verify the 10.1 Vdc bias and confirm a known velocity response through the complete installed circuit.
Which mounting decision remains open for 190501-00-00-CN?	Option 00 supplies no stud, so the maintenance team must verify the installed thread, adapter and surface from the approved drawing.
How is polarity retained when installing 190501-00-00-CN?	Record the original axis and pin identity; motion from base toward the top makes Pin A positive relative to Pin B.
What can mask the low-frequency signal from 190501-00-00-CN?	Loose mounting, cable motion, poor surface preparation and local structural resonance can create false or attenuated velocity readings.
How should cable loading be checked for 190501-00-00-CN?	Confirm cable capacitance and route within the documented length boundary, then verify bias and noise at the monitor input.
What proves 190501-00-00-CN is suitable after a controlled replacement?	Compare output bias, noise floor and velocity trend at representative speed with the recorded as-found baseline.
How is the CN execution of 190501-00-00-CN documented?	Keep the full suffix and delivered certification label in the asset record; do not infer an approval class from the suffix alone.

What happens after you enquire

Review your reference	Send the full 190501-00-00-CN marking, quantity and label photos. We review the item and any version details that need clarification.
Confirm the offer	Check the quoted 190501-00-00-CN reference, condition, included items and expected dispatch date before approving the order.
Arrange dispatch	Confirm delivery details for 190501-00-00-CN and receive the tracking number when it becomes available.

Ordering checks

Match the complete marking	Include 190501-00-00-CN and every revision or approval marking visible on the item. Keep the exact reference on the enquiry and quotation.
Check the offered item before ordering	Request available label and interface photographs. Compare the offered 190501-00-00-CN with the installed equipment and applicable Bently Nevada documentation.

190501-00-00-CN documents, evidence and enquiry record

Downloads and View PDF roles

190501-00-00-CN Technical Reference	Bently Nevada 190501 Velomitor CT Transducer Datasheet 141636 Rev. AF. Selected pages retain the applicable family data, order structure and system boundary without reseller material.
190501-00-00-CN Installation and Commissioning Guide	Field-focused decisions for identity capture, mechanical and electrical fit, controlled installation, diagnostics and handover.
Complete Product Information	Three distinct references support 190501-00-00-CN: selected manufacturer technical pages, a model-specific installation guide and the complete product-page dossier.

Manufacturer evidence ledger

Manufacturer reference	Bently Nevada 190501 Velomitor CT Transducer Datasheet 141636 Rev. AF
Applicability	Facts are limited to the exact order-code selections and stated matched-system conditions.
Evidence boundary	No neighboring-model option or unsupported lifecycle conclusion is assigned to this product.

Recommended product	Bently Nevada 330980-70-05
Recommended product	Bently Nevada 330425-01-00
Recommended product	Bently Nevada 330500-07-00
Recommended product	Bently Nevada 330706-005-046-10-02-00
Recommended product	Bently Nevada 200355-00-00-00

Discuss the exact marking and installed relationship with Apter Power.
sales13@apterpower.com | +86 18030235313

Use the complete marking, installed relationship, photographs and measured baseline as the service record for 190501-00-00-CN.