190501-21-00-01

Selected configuration and response

Bently Nevada 190501-21-00-01 is a Velomitor CT velocity transducer for low-speed fan assemblies. This configuration combines a 3/8-24 to 1/2-14 NPT adapter with a MIL-C-5015 connection.

Product series	190501 Velomitor CT
Measured quantity	Casing vibration velocity
Mounting option 21	3/8-24 to 1/2-14 NPT adapter
Connection option 00	MIL-C-5015 connection interface
Approval option	01; verify supplied marking and installation conditions
Sensitivity	3.94 mV/mm/s (100 mV/in/s), +/-5%
Frequency response (+/-1 dB)	3 Hz to 900 Hz
Frequency response (+/-3 dB)	1.5 Hz to 1 kHz
Peak velocity range	63.5 mm/s (2.5 in/s)
Transverse response	Less than 5% of axial sensitivity
Amplitude linearity	+/-2% to 63.5 mm/s peak
Output bias	10.1 V dc +/-1.0 V dc, Pin A relative to Pin B

Reference conditions: +20 to +30 deg. C and 100 Hz unless otherwise stated. Confirm the actual unit configuration before applying the ratings.

Request item photos and a quotation

sales13@apterpower.com

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Apter Power preparation reference - not a manufacturer manual.

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Construction and operating limits

Dynamic output impedance	Less than 400 ohms, typical
Broadband noise (1.5 Hz-1 kHz)	0.229 mm/s (0.009 in/s) peak
Electronics grounding	Isolated from case
Operating temperature	-40 deg.C to +85 deg.C
Storage temperature	-40 deg.C to +100 deg.C
Case material	316L stainless steel
Connector construction	2-pin 316L stainless steel, top-mounted
Mounting torque	4.5 N m +/-0.6 N m
Mounting orientation	Any orientation
Humidity limit	100% condensing, non-submerged
Shock limit	5000 g peak, maximum

Velocity-range boundary

The 63.5 mm/s peak range can be reduced significantly by vibration components above 1 kHz exceeding 10 g peak. Consider the complete signal environment when configuring a monitoring channel.

Mounting and polarity

Pin A goes positive relative to Pin B for velocity from the base to the top. The sensor mounting torque is 4.5 N m +/-0.6 N m. Use the applicable installation procedure for the actual adapter and mounting surface.

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Application and technical questions

Cooling-tower fans	Measure casing vibration velocity on fan assemblies operating at or above 90 rpm. Choose a mounting point with a suitable vibration transmission path from the rotor.
Air-cooled heat exchangers	Use low-frequency velocity measurement on heat-exchanger fan assemblies. Check the fan speed range and the structural response at the selected bearing housing or casing.
Fan motor monitoring	Observe motor-generated vibration as part of the fan assembly measurement. Select the channel frequency band and mounting location for the diagnostic task.
Speed-reducer vibration	Measure vibration transmitted from the fan speed reducer to the mounting location. Interpret readings with the gearbox configuration and its mechanical transmission path.

What does mounting option 21 mean for 190501-21-00-01?

It specifies a 3/8-24 to 1/2-14 NPT mounting adapter. Match the machine interface and the actual supplied adapter before installation; connection option 00 separately identifies the MIL-C-5015 electrical interface.

How does 190501-21-00-01 measure low-speed fan vibration?

It measures casing vibration velocity with a response of 1.5 Hz to 1 kHz within +/-3 dB. A suitable bearing-housing or casing mounting location must transmit rotor vibration effectively; the sensor is intended for fan assemblies operating at or above 90 rpm.

Which limits affect the 190501-21-00-01 velocity range?

The specified range is 63.5 mm/s peak. Vibration components above 1 kHz exceeding 10 g peak can significantly reduce that range, so assess the high-frequency environment as well as the velocity level.

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Purchasing and supplied-unit review

What cable and accessories are included with 190501-21-00-01?

The order uses connection option 00, the MIL-C-5015 interface, rather than option 99 with an included 32-foot cable. Supply scope is confirmed in quotation; have the adapter, mating cable, connector accessories and documents listed individually.

Can photos verify the offered 190501-21-00-01 configuration?

Request current nameplate, connector, mounting-base and adapter photos. Compare the full order code, serial marking and approval marking with the installed requirement, and record the agreed configuration and New, original product condition in the quotation.

How can I confirm the dispatch schedule for 190501-21-00-01?

Send the required quantity, destination and required date. Confirm the available quantity, planned dispatch date and whether lead time starts from order acceptance or payment; a delivery estimate does not establish that units are in stock.

Which approval documents should accompany 190501-21-00-01?

Specify the documents required by the intended installation and match them to the supplied approval marking. Confirm availability of the relevant certificate, instructions and any requested inspection records in the quotation; an approval option alone does not include a document package.

What warranty applies to 190501-21-00-01 and its accessories?

Have the warranty period, scope, exclusions and claim process confirmed in the offer. Clarify coverage for the transducer and any separately quoted adapter or cable, and review installation-related exclusions before placing the order.

Document basis

190501 Velomitor CT Transducer, 141636 Rev. AF, pages 1-3 and 6-8. Technical data and purchasing terms serve different purposes; confirm the scope of the actual offered unit before order acceptance.

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