Bently Nevada 330750-20-05

Complete product information

Bently Nevada 330750-20-05 is a high-temperature Velomitor velocity transducer with a 2.0 m permanent sensor-to-electronics cable and the 05 multiple-approvals option.

Product and offer identity

Complete part number	330750-20-05
Product type	High Temperature Velomitor Piezo-Velocity Transducer
Condition	New, original product
Shipping	Swift global dispatch
Shipping size (est.)	22cm x 20cm x 4cm
Weight	0.7 kg
Country of origin	USA
Tariff reference	8537101190
Ships from	Xiamen, Fujian, China

Technical specifications

System family	330750 high-temperature Velomitor
Sensor-to-electronics cable	2.0 m, integral
Approval order option	05; multiple approvals
Measured quantity	Casing vibration velocity
Nominal sensitivity	5.7 mV/mm/s (145 mV/in/s), +/-5%
Frequency response	15 to 2000 Hz, +/-3 dB
Electronics ambient limit	-55 to +121 deg C, general design
Sensing-head high-temperature option	Up to +400 deg C only on G-prefixed serials
Grounding	Case isolated
Sensor construction	Remote conditioning electronics linked by permanent cable

Overview

The high-temperature Velomitor separates its sensing head from the signal-conditioning electronics using a permanent cable. The 20 option selects 2 m, enabling the electronics to occupy a cooler mounting point than the monitored surface.

The datasheet specifies 5.7 mV/mm/s nominal sensitivity and a 15-2000 Hz velocity response under its reference conditions. These are transducer-system figures and require correct monitor input and wiring; casing velocity is not directly interchangeable with a shaft-relative displacement channel.

The +400 deg C sensing-head rating is limited to serials marked with a leading G. Check the actual serial and site temperature before applying that limit; keep the electronics within its own range.

Applications and compatibility

Hot casing vibration

Mount the sensing head at a validated casing location while locating electronics away from the hot surface.

Turbomachinery monitoring

Use a suitable velocity input and compare results with the machine protection configuration.

Trend comparison

Preserve the original mounting orientation and monitor scale when replacing an installed sensor.

Harsh industrial location

Protect the permanent cable and electronics from mechanical, thermal and moisture exposure.

Product precautions

Serial-dependent temperature

Do not assume +400 deg C capability without a G-prefixed serial marking.

Remote electronics

Keep the conditioning housing below its published temperature ceiling.

Permanent cable

Do not splice the fixed sensor-to-electronics link.

Mounting surface

Select a casing position that transfers the vibration of interest.

Monitor scaling

Confirm velocity sensitivity and input polarity in the installed monitor.

As-left baseline

Record sensor serial, surface temperature, bias and velocity trend.

Buyer information

Send the exact complete marking, application, quantity and required delivery destination. Confirm the offered condition and included items in the written quotation; shipment details are established with the order.

Lifecycle and available-unit details

The current manufacturer lifecycle phase for this exact complete ordering identity is not established here. Review the installed machine configuration before a replacement decision.

The offered unit is New, original product. Request available label and connector photographs for comparison with the installed part before approving the supply scope.

Engineering questions

What establishes whether 330750-20-05 can use the +400 deg C sensing-head limit?	Verify a serial number prefixed G on the actual unit. The manufacturer distinguishes that construction from earlier temperature variants.
Why must the electronics of 330750-20-05 be away from the hottest surface?	The sensing head and conditioning electronics have different temperature limits. The fixed 2 m cable permits separation between their mounting points.
Can the sensor-to-electronics cable on 330750-20-05 be shortened or spliced?	It is an integral permanent connection. Altering it can affect reliability and calibration; use the specified assembly length and protect the route.
How should 330750-20-05 be matched to a monitor input?	Use the approved velocity channel and validate the nominal sensitivity, bias and wiring with the installed monitor configuration.

What installation error can cause 330750-20-05 to under-report a rotor fault?	A casing location that transmits little rotor motion can give weak response despite a working sensor. Verify the machine measurement point and mounting coupling.
How can an abnormal bias from 330750-20-05 be investigated?	Check the supply and wiring at the electronics, connector integrity and installed monitor input before concluding the sensing head is defective.
What can affect the upper-frequency response of 330750-20-05?	Mounting stiffness, monitor loading and cabling can influence measured response. Compare the installed path with the manufacturer frequency specification.
Which as-left values are useful after replacing 330750-20-05?	Retain serial and approval marks, surface and electronics temperatures, mounting location, bias voltage and the accepted running velocity trend.

Additional technical criteria

Nominal sensitivity	5.7 mV/mm/s with a +/-5% reference tolerance.
Primary passband	15-2000 Hz within +/-3 dB.
Narrow passband	20-1000 Hz within +/-0.9 dB.
Nominal output bias	-12 Vdc with +/-2 V reference tolerance.
Mounted resonance	Greater than 5 kHz under published conditions.
Transverse response	Less than 5% of principal-axis sensitivity.
Sensing temperature	The +400 deg C limit needs a G-prefixed serial.
Electronics location	The remote conditioning electronics must remain below their own limit.

Engineering integration decisions

Sensing location	Mount the head at the documented vibration point with the required mechanical contact.
Electronics location	Route the permanent lead to a cooler location suitable for the conditioning electronics.
Serial boundary	Use the high sensing-head temperature limit only when the actual serial marking permits it.
Channel type	A velocity monitor input must be configured for this transducer rather than a shaft-displacement probe.

Technical basis

Bently Nevada 330750 and 330752 High Temperature Velomitor System, 141639 Rev. V

Discuss the complete marking and installed application with Apter Power.
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