Bently Nevada 330750-20-05

Engineering installation and verification guide

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.

01 / Establish the installed identity

Compare the full offered model and any visible revision or approval marks with the removed item, machine drawing and monitor configuration. Capture the original measured baseline before changing the sensing chain.

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

02 / Engineering interface map

1 / hot sensing head	Start from the actual installed application.
2 / integral 2 m cable	Confirm fit and identity before energizing.
3 / remote electronics	Confirm fit and identity before energizing.
4 / velocity monitor	Confirm fit and identity before energizing.

03 / Installation decisions

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.

04 / Acceptance sequence

Isolate and inspect	Apply site isolation and inspect the physical part, contacts, seal or route as applicable.
Fit and connect	Use the verified mounting and electrical interface; preserve the installed channel design.

Prove response	Check the relevant gap, bias, pressure or velocity output against the approved site procedure.
Record as left	Save complete markings, test results, configuration and operating trend before release.

05 / Fault isolation by symptom

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.

06 / Engineering review before release

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.

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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