

990-05-70-01-05

Vibration Transmitter

Bently Nevada 990-05-70-01-05 is a two-wire, loop-powered vibration transmitter with an integrated Proximitor interface for a 3300 NSv probe system. It provides a proportional 4-20 mA vibration signal plus dynamic vibration and gap-voltage access.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
Complete model	990-05-70-01-05
Product role	Vibration Transmitter
System family	990 Vibration Transmitter
Country of origin	USA

DOCUMENT SCOPE

Exact identity, manufacturer-supported technical data, installation checks, applications, precautions and controlled verification records.

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Technical Specifications

PARAMETER	VERIFIED VALUE
Complete model	990-05-70-01-05
Output	Two-wire loop-powered 4-20 mA proportional vibration
Probe system	3300 NSv probe and matching extension cable
Full-scale option	05 = 0 to 5 mil peak-to-peak (0 to 125 um)
System length	70 = 7.0 m
Mounting option	01 = 35 mm DIN-rail clips
Approval option	05 = CSA Division 2, ATEX Zone 0/2 and ABS
Supply	17 to 35 VDC
Maximum loop resistance	1000 ohm at 35 VDC
Frequency response	5 to 6000 Hz, +0/-3 dB
Linear range	1.4 mm
Country of origin	USA

Model-Specific Engineering Note

ENGINEERING BOUNDARY

Match the 3300 NSv probe and extension cable to the documented 7.0 m system length. Confirm loop supply, resistance, probe gap, scale option, DIN mounting and hazardous-area approval before commissioning.

Pre-Installation Checks

NO.	REQUIRED CHECK
1	Verify the complete 990-05-70-01-05 marking.
2	Confirm the approved 3300 NSv probe and 7.0 m system length.
3	Verify the 17 to 35 VDC loop supply and allowable resistance.
4	Record polarity, shield and grounding before wiring changes.
5	Set the probe gap within the documented operating range.

System Role and Architecture

Bently Nevada 990-05-70-01-05 is a two-wire, loop-powered vibration transmitter with an integrated Proximitor interface for a 3300 NSv probe system. It provides a proportional 4-20 mA vibration signal plus dynamic vibration and gap-voltage access.

FUNCTION 1
Loop-powered 4-20 mA output

FUNCTION 2
Integrated 3300 NSv interface

FUNCTION 3
Dynamic vibration and gap access

FUNCTION 4
DIN-rail industrial installation

Common Applications

APPLICATION	ENGINEERING CONTEXT
PLC and DCS vibration input	Supplies a standard 4-20 mA vibration signal to approved control or monitoring systems.
Shaft vibration monitoring	Uses the matched 3300 NSv probe system to measure shaft-relative vibration.
Condition verification	Provides dynamic vibration and gap voltage through the documented PROX OUT and COM points.
Hazardous-area installation	Supports the documented option-05 approval set when the complete installation follows the approved drawing.

CONTROLLED ACCEPTANCE DUTY

Confirm identity, physical interface, companion hardware, configured values and functional response against the installed-system record before release.

Engineering Precautions

NO.	PRECAUTION
1	Verify the complete 990-05-70-01-05 marking.
2	Confirm the approved 3300 NSv probe and 7.0 m system length.
3	Verify the 17 to 35 VDC loop supply and allowable resistance.
4	Record polarity, shield and grounding before wiring changes.
5	Set the probe gap within the documented operating range.
6	Mount the transmitter with the 35 mm DIN clips in the approved enclosure.
7	Follow the option-05 hazardous-area drawing and barriers where applicable.
8	Verify 4-20 mA scaling, gap voltage and dynamic signal before release.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
What is Bently Nevada 990-05-70-01-05?	It is a two-wire loop-powered vibration transmitter with an integrated interface for a matched 3300 NSv proximity probe system.
What output does it provide?	It provides a proportional 4-20 mA vibration output and access to dynamic vibration and gap voltage.
What does option 05 specify for full scale?	The first 05 option identifies a 0 to 5 mil peak-to-peak, or 0 to 125 um, vibration range.
What system length is required?	Option 70 identifies a 7.0 m probe and extension-cable system.

Model-Specific FAQ - Part 2

QUESTION	ANSWER
How is the transmitter mounted?	Option 01 identifies the 35 mm DIN-rail clip mounting configuration.
What approvals are included?	The final 05 option identifies the documented CSA Division 2, ATEX Zone 0/2 and ABS approval selection.
What loop supply is documented?	The transmitter operates from 17 to 35 VDC, with loop resistance limited by the supply and up to 1000 ohm at 35 VDC.
What confirms successful commissioning?	The probe gap is valid, the 4-20 mA output matches the applied vibration and the dynamic and gap signals are credible.

Related Products on Apter Power

MODEL	APTER POWER PAGE
Bently Nevada 133827-01	View Bently Nevada 133827-01
Bently Nevada 134652-01	View Bently Nevada 134652-01
Bently Nevada 135137-01	View Bently Nevada 135137-01
Bently Nevada 135473-01	View Bently Nevada 135473-01
Bently Nevada 135489-01	View Bently Nevada 135489-01
Bently Nevada 135489-03	View Bently Nevada 135489-03
Bently Nevada 135489-04	View Bently Nevada 135489-04
Bently Nevada 135613-01	View Bently Nevada 135613-01

MANUFACTURER SOURCE RECORD

990 Vibration Transmitter Datasheet
Baker Hughes / Bently Nevada publication 141612 Rev. Y

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