Bently Nevada 990-04-50-02-00

COMPLETE PRODUCT INFORMATION

Bently Nevada 990-04-50-02-00 is a two-wire 990 vibration transmitter configured for a 0-4 mil peak-to-peak range, a 5.0 m 3300 NSv transducer system and bulkhead-screw mounting. It converts the matched proximity signal to a proportional 4-20 mA output.

Exact identity

990	Loop-powered vibration transmitter
04 full scale	0-4 mil pp / 0-100 um pp
50 system	5.0 m NSv electrical system
02 mounting	Bulkhead screws
00 approval	Agency approval not required

Installed context

Exact item	Installed context	Acceptance
990-04-50-02-00	Mating component or rack position	Machine-specific functional check

Five-metre compressor channels

Feed an overall-vibration input from a matched compact-shaft NSv sensing chain.

Controller vibration trends

Provide proportional peak-to-peak amplitude to an approved machinery control input.

Bulkhead-mounted panels

Secure the transmitter where four bulkhead screws and accessible terminals suit the enclosure design.

Service diagnostics

Observe gap and dynamic waveform through PROX OUT using properly isolated test equipment.

Related Bently Nevada models

Bently Nevada 990-05-50-01-05	Related portfolio reference; verify the complete execution.
Bently Nevada 990-05-70-02-00	Related portfolio reference; verify the complete execution.
Bently Nevada 990-05-70-01-05	Related portfolio reference; verify the complete execution.
Bently Nevada 990-05-50-01-00	Related portfolio reference; verify the complete execution.
Bently Nevada 330980-51-CN	Related portfolio reference; verify the complete execution.
Bently Nevada 330905-00-03-10-02-00	Related portfolio reference; verify the complete execution.

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990-04-50-02-00

Manufacturer-supported characteristics

Full-scale Option	04 = 0-4 mil peak-to-peak (0-100 um peak-to-peak)
System Length Option	50 = 5.0 m
Mounting Option	02 = bulkhead screws
Agency Option	00 = not required
Transducer Input	One 3300 NSv proximity probe and matching extension cable
Conditioning Stage	Integrated Proximitor

Additional data

Supply at Transmitter	+12 to +35 VDC; approval-specific circuit limits also apply
Process Output	4-20 mADC, two-wire, proportional to configured full scale
Loop Accuracy	Within +/-1.5% of full scale, TEST input to a 250-ohm loop
Loop Accuracy Boundary	Additional to PROX OUT incremental scale-factor error
Maximum Loop Resistance	1000 ohm including cable at 35 VDC
Current Limiting	23 mA typical

Interpretation boundary

This execution selects a 5.0 m NSv chain, bulkhead screws and no agency approval. Match every transducer component and verify the actual loop before applying the signal to machinery logic.

Evidence discipline

Unverified weight, dimensions and suffix meanings are intentionally omitted. Confirm them only from the exact manufacturer record or nameplate.

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01 / Field precaution

Confirm the 04 range and matched 5.0 m NSv component chain before wiring 990-04-50-02-00.

02 / Field precaution

Secure all four bulkhead screws without distorting the enclosure or blocking terminal access.

03 / Field precaution

Verify polarity and voltage at the transmitter under the actual loop load.

04 / Field precaution

Keep PROX OUT isolated from grounded AC-powered instruments through the specified adapter.

05 / Field precaution

Limit the diagnostic BNC cable to 3 m and use the specified input loading.

06 / Field precaution

Allow the startup inhibit to finish before interpreting a below-3.6 mA state as a fault.

07 / Field precaution

Protect coaxial connectors against contamination and moisture at the installed location.

08 / Field precaution

Complete the machine-specific functional check before enabling alarm or trip logic.

Acceptance checkpoints

Identity	Full model and nameplate recorded
Mechanical	Mounting, enclosure and routing inspected
Electrical	Power, loop or cable checks follow the applicable source
Integration	Mating components and system length confirmed
Acceptance	Machine-specific functional result recorded

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What current represents full scale on 990-04-50-02-00?

20 mA represents the configured 0-4 mil peak-to-peak full scale; 4 mA represents the lower endpoint under valid operating conditions.

Which transducer length belongs with 990-04-50-02-00?

Use a matched 5.0 m 3300 NSv probe-plus-extension chain.

How is 990-04-50-02-00 fixed inside an enclosure?

Option 02 supplies bulkhead screws rather than DIN-rail clips.

Can 990-04-50-02-00 provide vibration phase through its 4-20 mA loop?

No. The loop represents overall peak-to-peak amplitude; use the diagnostic output and suitable instrumentation for waveform work.

What does a persistent output below 3.6 mA indicate on 990-04-50-02-00?

It is the transmitter's Not OK behavior after the startup inhibit has ended; inspect the transducer chain and loop conditions.

May a grounded oscilloscope connect directly to 990-04-50-02-00?

Use the specified isolation adapter with grounded AC-powered test equipment because PROX OUT is not isolated from the loop.

Which approval selection is built into 990-04-50-02-00?

The final 00 means no agency-approval option is selected.

What should be recorded when commissioning 990-04-50-02-00?

Record the complete five-metre component chain, loop supply under load, zero/span result, output current and accepted machine reading.

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Evidence record

Manufacturer	Bently Nevada, a Baker Hughes company
Reference	990 Vibration Transmitter Datasheet 141612 Rev. Y
Exact identifier	990-04-50-02-00
Evidence boundary	Only directly supported family and ordering statements are used

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Recommendation rule

Brand + model links identify related Bently Nevada pages. They do not claim compatibility or substitution.

Service record

Retain exact identity, installed point, companion components, as-found condition, inspection evidence and machine-specific acceptance result.

Manufacturer evidence

141612 Rev. Y: function and interfaces pp. 1-2; electrical and loop data p. 3; environment p. 4; exact 04/50-or-70/02/00 ordering selections p. 7.

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