01 INSTALLATION & COMMISSIONING

Bently Nevada 990-05-XX-03-CN 104M1359-01

01 / PLAN AND IDENTIFY THE WORK

Bently Nevada 990-05-XX-03-CN 104M1359-01 is a 990-series vibration transmitter for an overall-vibration input to a machinery control system. Its special execution requires confirmation of the transducer length, calibration and approval marking before installation.

Retain the full identifier

990	Vibration transmitter family
05	Standard ordering-table meaning: 0-5 mil peak-to-peak
XX	System-length placeholder; numerical value not supplied
03	Standard ordering-table meaning: DIN clips and bulkhead screws
CN / 104M1359-01	Retained exactly; special approval and identifier not decoded

Channel relationship

Installed probe + cable Exact combination requires confirmation	**990-series transmitter** Signal conditioning and current loop	**Machinery controller** Scaling, trending and alarm logic

01 Establish the machine work boundary

Use the approved machine isolation procedure before interrupting the monitored channel. Identify how the controller responds to a missing or Not OK loop and preserve the authorized alarm configuration.

02 Resolve the special configuration

All numerical data in the reference tables describe the documented 990 family. The supplied file does not identify this special execution. Resolve its actual calibration, transducer combination and approvals before applying these reference values to a machine.

Related Bently Nevada models

Bently Nevada 990-05-50-01-05	Related portfolio item; verify full configuration
Bently Nevada 990-04-70-01-05	Related portfolio item; verify full configuration

Connect with ApterPower

Phone: +86 180 3023 5313

Email: sales13@apterpower.com

www.apterpower.com

02 / MOUNT AND INSPECT THE CIRCUIT

03 Match the mounting arrangement

The standard 03 code refers to both DIN clips and bulkhead screws. Compare the actual unit hardware with the machine arrangement; check secure attachment and access to terminals and diagnostic connections.

990-series loop reference

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

04 Verify the installed supply and load

Check the voltage at the transmitter and the total receiving-loop resistance, including cable. The 1000-ohm reference is stated at 35 VDC; it is not a universal load allowance at every supply voltage.

05 Check approval conditions

The general series supply range and environmental limits do not establish an approved hazardous-area circuit. The CN suffix in this requested identity is not decoded in the supplied 990 ordering table. Keep any approval-dependent selection open until the actual marking and circuit documents are available.

Transmitter environment reference

Transmitter Operating Temperature	-35 to +85 deg C; installed approval limits also apply
Storage Temperature	-52 to +100 deg C
Humidity	100% condensing, non-submerged, with protected coaxial connectors

Connect with ApterPower
Phone: +86 180 3023 5313
Email: sales13@apterpower.com
www.apterpower.com

03 / CONNECT AND CHECK TEST EQUIPMENT

Diagnostic output reference

Zero and Span	Independent external adjustments under the label
Diagnostic Output	Non-isolated PROX OUT / COM and coaxial connector
PROX OUT Impedance	10 kohm, calibrated for a 10 Mohm load
PROX OUT Cable Limit	3 m maximum from the BNC diagnostic output
Grounded Test Equipment Interface	122115-01 test adapter for signal isolation
Transducer-system Frequency Range	5-6000 Hz

06 Identify instrument grounding

The dynamic PROX OUT path is not isolated from the two-wire current loop. The 122115-01 test adapter provides signal isolation and conditioning for grounded AC-powered diagnostic instruments. An oscilloscope ground connection must not be treated as electrically independent of the operating loop.

07 Test the loop path

The TEST input accepts a function-generator signal for a loop-output check. This evaluates a different path from the installed probe, target and extension cable. Record the selected test path and instrument loading, and complete the installed-channel functional check separately.

08 Keep records for each path

Record the test connection, equipment grounding, selected input and controller reading. A successful electronic test does not establish the unknown XX length, mechanical target condition or special probe calibration.

Why should grounded diagnostic equipment be isolated from 990-05-XX-03-CN 104M1359-01?

The 990 family PROX OUT connection shares the loop reference. The 122115-01 test adapter isolates and conditions that diagnostic signal for grounded AC-powered instruments, helping preserve the loop measurement.

Related Bently Nevada models

Bently Nevada 990-04-70-01-05	Related portfolio item; verify full configuration

Connect with ApterPower
Phone: +86 180 3023 5313
Email: sales13@apterpower.com
www.apterpower.com

04 / STARTUP AND CHANNEL ACCEPTANCE

990-series startup and fault behavior

Not OK Output	Below 3.6 mA within 100 us after a Not OK condition
Not OK Recovery	2-3 seconds after the fault condition is removed
Power-up Inhibit	Output below 3.6 mA for 2-3 seconds

09 Observe the startup interval

The series reference describes a below-3.6 mA indication for 2-3 seconds after power is applied. Check that the subsequent response agrees with the actual configured unit and machine procedure.

10 Investigate a persistent fault

Inspect the documented companion components, connections and circuit conditions when the loop remains Not OK. Do not replace the missing system-length evidence with an assumed five- or seven-metre value.

Acceptance evidence

Identity	Record the complete model including 104M1359-01
Companion components	Resolve XX and the special probe/cable combination
Electrical check	Check actual supply, load, wiring and approval conditions
Functional check	Verify loop path, installed target response and controller scale
Handover	Retain configuration evidence and machine acceptance results

11 Validate installed response

Verify the intended probe/target response and receiving-controller scaling with the confirmed special configuration. Record the machine-specific acceptance result before restoring protection service.

Related Bently Nevada models

Bently Nevada 990-10-XX-01-00 163930-01	Related portfolio item; verify full configuration

Connect with ApterPower
Phone: +86 180 3023 5313
Email: sales13@apterpower.com
www.apterpower.com

05 / HANDOVER AND SERVICE LIMITS

What does the 104M1359-01 identifier establish on 990-05-XX-03-CN 104M1359-01?

It is part of the complete requested identity. The supplied 141612 Rev. Y reference does not explain its modification, calibration or companion-probe selection, so those attributes remain unassigned.

Can XX in 990-05-XX-03-CN 104M1359-01 be treated as a five-metre system?

No. XX is retained as written and does not specify a numerical length. The standard family offers 5 m and 7 m NSv systems, but neither length can be selected for this special execution from that general listing.

Does CN in 990-05-XX-03-CN 104M1359-01 confirm a hazardous-area approval?

The supplied 990 ordering table does not define this CN execution. Use the actual unit marking and applicable circuit documentation; no particular certification is assigned from the suffix alone.

12 Preserve the configuration package

Retain the full special identifier, actual probe and extension numbers, installed approval marking, wiring record, diagnostic interface and functional test. Keep unsupported attributes unassigned until evidence is available.

Monitoring boundary

The 4-20 mA signal supports overall peak-to-peak trending. It does not determine vibration phase, capture an alarm waveform or implement gap/phase alarms, Timed OK channel defeat, Danger Bypass or Trip Multiply. The machinery control system supplies its configured alarm and logic functions.

Related Bently Nevada models

Bently Nevada 990-05-50-01-05	Related portfolio item; verify full configuration
Bently Nevada 990-04-70-01-05	Related portfolio item; verify full configuration
Bently Nevada 990-10-XX-01-00 163930-01	Related portfolio item; verify full configuration

Manufacturer evidence and applicability

990 Vibration Transmitter Datasheet 141612 Rev. Y: family role and interfaces p. 1; diagnostic isolation and limitations p. 2; electrical reference and specifically listed modifications p. 3; environment p. 4; approval conditions p. 6; standard ordering p. 7; test adapter p. 10. The user-supplied file does not decode this special execution.

Connect with ApterPower
Phone: +86 180 3023 5313
Email: sales13@apterpower.com
www.apterpower.com