Bently Nevada 991-06-70-03-05

01 Establish the thrust measurement chain

1 Identify the selected range

Configure the receiving input for 0.6–0–0.6 mm. Retain the machine thrust-direction convention and the intended neutral position so that loop scaling and mechanical movement agree.

2 Match the transducer system

Use a compatible 3300 NSv probe and extension cable whose electrical length matches the 7 m transmitter system. Identify each connector and protect the calibrated cable arrangement.

Selected loop span	0.6–0–0.6 mm
System length	7.0 m
Mounting hardware	DIN clips and screws

02 Prepare power and loop loading

1 Count the full circuit resistance

Add receiver and cable resistance and compare it with the permitted load at the actual source voltage. The maximum-load relation is 43.5 × (Vps − 12) Ω; exceeding it prevents a full 20 mA signal.

2 Distinguish source and terminal voltage

The transmitter requires 12–35 VDC at its terminals. Account for the loop voltage drop and use the applicable wiring diagram when selecting the power source and receiving input.

At 24 V source	Maximum 522 Ω total load
At 35 V source	Maximum 1000 Ω specified
Current limiting	23 mA typical

03 Set the mechanical gap and loop span

1 Verify available travel

Confirm that the probe has usable gap travel in the normal and counter directions. A correct receiving scale cannot compensate for a probe that reaches the end of its linear range.

2 Adjust and prove the loop

Use the prescribed setup for the independent zero and span controls. Check both endpoints and direction; use the TEST pin with a controlled DC source to verify loop response separately from probe movement.

Zero / span	Non-interacting adjustments
TEST-input accuracy	±1.5% full scale typical; 250 Ω load
Prox Out linear range	0.25–1.65 mm

04 Connect diagnostic equipment correctly

1 Protect loop isolation

PROX OUT is electrically connected to the loop. Use the 122115-01 adapter with grounded AC-powered equipment to isolate the test connection and preserve the protection signal.

2 Check polarity and loading

The diagnostic signal phase differs from the standard Bently Nevada convention; the adapter also inverts it. Respect the 10 MΩ calibration load and the maximum 3 m BNC output cable distance.

Output impedance	10 kΩ
Calibration load	10 MΩ
Diagnostic BNC cable	Maximum 3 m

05 Prove fault response and receiving logic

1 Test the Not OK indication

Under an approved test state, confirm the low-current fault indication and the receiving system response. The transmitter drives below 3.6 mA within 100 µs and restores signal within 0.1 s after recovery.

2 Release the configured thrust channel

Check the actual axial signal, receiving units, direction and protection logic. Retain the span, gap and loop-load results; a transmitter check alone does not prove all control-system alarms and actions.

Technical basis: Bently Nevada 991 Thrust Transmitter Datasheet, 141618 Rev. R.

Related product navigation

Bently Nevada 991-06-50-01-00

Bently Nevada 991-06-XX-01-00 MOD:169955-01

These are related references, not confirmed substitutes or an automatically approved assembly.