Bently Nevada 350500-00-00-00-11-00

01 Charge sensitivity and High-filter selection

1 Identify the 16 pC/psi sensor path

Capture the pressure sensor charge sensitivity, cable type and input connection. Confirm the amplifier selection is 16 pC/psi with High filtering and a MIL connector. Record the existing monitor scale and the frequencies used by the application.

2 Keep sensor sensitivity separate from monitor scaling

Compare the sensor charge sensitivity with the amplifier selection before reconnecting the input. A receiving monitor scaled to 100 mV/psi cannot correct a mismatched charge-sensitivity selection at the amplifier input.

Record	Complete marking and installed position
Comparison	Field labels agree with application assignments
Input sensitivity	16 pC/psi (232 pC/bar)
Nominal sensor capacitance	60 to 90 pF, pole to pole

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02 Negative supply and DIN mounting

1 Measure the no-barrier supply relative to common

Verify the DIN mounting and enclosure before connecting power. Measure -19.60 to -26 V DC relative to instrument common for the no-barrier circuit. Account for the maximum 14.68 mA no-load demand and keep the approval-00 area restriction explicit.

2 Check supply polarity at the amplifier terminals

Record the measured voltage with its polarity and reference point. The permitted -19.60 to -26 V DC range is relative to instrument common; an unsigned voltage measurement leaves the polarity condition unresolved.

Supply evidence	Measured at the device connection
Work condition	Power isolated while wiring is handled
Filter selection	High
Output sensitivity	100 mV/psi ±2% at 150 Hz

03 MIL input and SpringLoc output connections

1 Restore the sensor and monitor circuits

Connect the MIL sensor cable without transferring mechanical stress to its contacts. Restore power, common and signal at the SpringLoc strip. Use the specified shielded triad for the monitor run and keep its length within 305 m.

2 Separate input capacitance from output cable length

Identify the sensor-input cable independently of the shielded-triad monitor run. Input capacitance influences the selected filter response, while the monitor cable has its own 305 m maximum routing condition.

Wiring record	Connection-by-connection comparison
Physical inspection	Shield, connector and strain relief checked
Dynamic range	±50 psi peak
Output resistance	50 ohm typical

04 Pressure scale and frequency response

1 Restore the 100 mV/psi monitor scale

Set the receiving monitor for 100 mV/psi. Calculate or obtain the total pole-to-pole capacitance of the sensor and input cable, then assess the selected High-filter response over the required measurement band. Do not correct a sensitivity mismatch by arbitrary display scaling.

2 Evaluate High filtering with the actual input capacitance

Use the combined sensor-and-input-cable capacitance when assessing the measurement band. Retain the intended pressure scale and evaluate frequency response explicitly instead of adjusting gain to hide a frequency-dependent mismatch.

Configuration	Approved settings restored
Diagnostic condition	Normal recognition before functional testing
Supply without barriers	-19.60 to -26 V DC
No-load current	14.68 mA maximum; 11.69 mA typical

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05 Dynamic-pressure response and clipping

1 Apply a controlled charge or pressure stimulus

Apply a controlled dynamic-pressure or equivalent charge stimulus within the operating range. Verify output amplitude near the 150 Hz reference and at the application frequencies. Check stable bias and absence of clipping before restoring pressure alarms and machine monitoring.

2 Compare reference-frequency and application-band readings

Record the output at the 150 Hz reference and at the relevant application frequencies. Check amplitude and clipping separately; a stable bias alone does not prove the dynamic-pressure measurement is correct.

Technical basis: Bently Nevada 350500 Dynamic Pressure Charge Amplifier, 145828 Rev. W.

Related product navigation

- Bently Nevada 330103-00-06-05-02-00
- Bently Nevada 330103-00-05-10-02-00

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