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

01 Function and selected configuration

Product function

Bently Nevada 350500-00-00-00-11-00 converts the pressure transducer charge signal near the machine into a voltage signal suitable for the downstream monitoring channel.

Selected configuration

The input gain is selected for a sensor sensitivity of 16 pC/psi and nominal pole-to-pole capacitance of 60–90 pF. Matching the charge sensitivity is essential because the amplifier output scale is fixed at 100 mV/psi for the selected configuration.

Functional path

Charge sensor	MIL input	Charge conversion	Voltage monitor

Charge input	16 pC/psi
Voltage output	100 mV/psi at 150 Hz
Installation	35 mm DIN rail and MIL connector

The High filter option must be evaluated with the combined sensor and cable capacitance. The low-frequency corner changes with this external capacitance, so the filter label alone cannot establish the usable measurement band.

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02 Technical operating envelope

Input sensitivity	16 pC/psi (232 pC/bar)
Nominal sensor capacitance	60 to 90 pF, pole to pole
Filter selection	High
Output sensitivity	100 mV/psi ±2% at 150 Hz
Dynamic range	±50 psi peak
Output resistance	50 ohm typical

Supply without barriers	-19.60 to -26 V DC
No-load current	14.68 mA maximum; 11.69 mA typical
Mounting	35 mm DIN rail
Input connection	MIL connector
Output wiring	Three-conductor SpringLoc terminal strip
Maximum monitor cable	305 m

Sensitivity and dynamic range are specified at 23°C ±2°C. Filter response depends on external capacitance and must be checked for the connected sensor and cable.

Signal interpretation

At 23°C ±2°C, the output scale is 100 mV/psi ±2% at 150 Hz and the dynamic range is ±50 psi peak.

Interface boundary

No-barrier supply voltage is -19.60 to -26 V DC. This exact approval-00 execution must not be presented as an approved hazardous-area device.

Why does cable capacitance matter for 350500-00-00-00-11-00?

Sensor and cable pole-to-pole capacitance affect the low-frequency corner; assess their combined value using the High-filter response.

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03 System integration and applications

Dynamic pressure signals

Convert compatible piezoelectric pressure-sensor charge into a monitor voltage.

Remote monitoring input

Drive the specified shielded field cable to a monitoring channel.

DIN cabinet assembly

Use the selected rail mount in the approved enclosure.

Frequency-band assessment

Evaluate the sensor and cable capacitance against the High-filter response.

System and supply context

The amplifier connects a compatible charge-output pressure sensor to a voltage-input monitoring channel.

Application boundary

Apply the selected sensitivity and filter with the actual sensor and cable capacitance; the supplied item is the charge amplifier.

What voltage corresponds to 10 psi on 350500-00-00-00-11-00?

At the nominal 100 mV/psi scale, a 10 psi dynamic input corresponds to 1 V of dynamic output, within the operating band and range.

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04 Engineering selection decisions

Which charge sensitivity matches 350500-00-00-00-11-00?

The input is selected for 16 pC/psi, with nominal sensor pole-to-pole capacitance of 60–90 pF.

Is 350500-00-00-00-11-00 a panel-mounted amplifier?

No. The 11 mounting selection is a 35 mm DIN arrangement with a MIL connector.

How much no-load current must be allowed for 350500-00-00-00-11-00?

Allow up to 14.68 mA; the typical no-load value is 11.69 mA.

How far can the output of 350500-00-00-00-11-00 run to the monitor?

The specified maximum field wiring length is 305 m using the recommended shielded three-conductor arrangement.

Field wiring	Keep power, common and output correctly assigned.
Area classification	Approval 00 does not authorize hazardous-area installation.

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05 Configuration boundary and references

Lifecycle and support

The current production and factory-support status of 350500-00-00-00-11-00 is unconfirmed.

Replacement assessment

Retain the matched transducer family, total electrical length and target calibration. Recheck the channel response after replacing a component.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains selection and system context. The separate installation guide covers preparation, connection, tests and handover; it does not replace manufacturer instructions.

Technical basis

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

Related product navigation

- Bently Nevada 330103-00-04-05-02-00
- Bently Nevada 330103-00-05-05-02-00

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

Product enquiries