

APTER POWER INSTALLATION AND APPLICATION GUIDE

144181-51-05

Field planning for 3300 XL 8 mm Proximito Sensor

This is a 3300 XL 8 mm Proximito Sensor configuration used as the signal-conditioning element of a Bently Nevada eddy-current proximity transducer system.

It conditions the probe response for radial vibration and shaft position measurement channels, giving machinery monitoring hardware a usable proximity signal.

Document field	Value
Manufacturer	Bently Nevada
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APTER POWER SALES TEAM

INDUSTRIAL AUTOMATION PRODUCT SUPPORT

Three interface paths, one controlled configuration.

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SCAN FOR PRODUCT & QUOTE

144181-51-05

1. Signal Path and System Function

144181-51-05 is the signal-conditioning element of the proximity transducer loop. It excites the matched probe and presents the conditioned displacement signal to the machinery monitoring input.

Configured Hardware Chain

1

Matched proximity probe from the specified system family

2

Extension cable completing the configured electrical length

3

DIN or panel hardware defined by the model code

4

Monitor channel accepting the conditioned proximity signal

Signal Objective

It conditions the probe response for radial vibration and shaft position measurement channels, giving machinery monitoring hardware a usable proximity signal.

2. Mechanical and Electrical Planning

Model-Specific Planning Data

Planning item	Configured value
System length	5.0 m
Mounting	35 mm DIN rail
Agency approvals	CSA; ATEX; IECEx
Operating temperature	-52 to +100 C
Storage temperature	-52 to +105 C

Fit and Route Review

- Match the total probe and extension-cable length to the 5.0 m sensor system length before commissioning.
- Keep the complete 144181-51-05 identifier with the installation record.
- Confirm the selected companion components before field assembly.
- Reserve access for connector inspection and baseline measurements.

3. Installation and Commissioning Sequence

- 1 Mount 144181-51-05 in the arrangement identified by its configuration.
- 2 Confirm probe and extension cable belong to the correct sensor family.
- 3 Verify total electrical length before applying power.
- 4 Terminate power, common and output conductors at the monitoring panel.
- 5 Record gap voltage and channel response during commissioning.

Commissioning Record

Record field	Entry
Model	144181-51-05
Measurement point	Machine tag and physical location
Baseline	Gap, acceleration or continuity value as applicable
Release check	Stable signal and secure mechanical installation

4. Diagnostic Checks and Engineer Questions

Diagnostic Checks

- No output: verify negative supply and common continuity.
- Offset outside the expected gap region: inspect probe gap and cable match.
- Intermittent signal: check ClickLoc connectors and field terminals.
- Temperature drift concern: confirm sensor location is within its rated range.

Engineering FAQ - Questions 5 to 8

Which operating temperature is associated with 144181-51-05?

The technical value is -52 to +100 C for the operating temperature of this model.

What companion hardware should be confirmed for 144181-51-05?

Confirm matched proximity probe from the specified system family, extension cable completing the configured electrical length, din or panel hardware defined by the model code.

What is the first commissioning check for 144181-51-05?

Match the total probe and extension-cable length to the 5.0 m sensor system length before commissioning.

Where is 144181-51-05 applied and what signal behavior should the engineer verify?

DIN-rail mounting suits dense machinery-monitoring panels serving fluid-film bearing machines, compressors, pumps and turbines. Verify a stable response at the configured monitoring input before releasing the channel.

Technical Source

3300 XL 8 mm Proximity Transducer System Datasheet 141194