Bently Nevada 330780-51-CN

01 Define the 5 m measurement chain

1 Inventory the three transducer elements

Record the probe, extension cable and 330780-51-CN markings before disturbing the circuit. Confirm that the probe and extension are compatible 3300 XL 11 mm components and that their lengths total 5.0 m. Separate this electrical length from the field wiring between the conditioner and monitor; the two serve different purposes.

2 Retain the monitor configuration

Capture channel sensitivity, measured quantity, gap value, alarm settings and any bypass state. The 11 mm nominal sensitivity is 3.94 V/mm. If converting from a 7200 installation, plan the full component replacement and monitor configuration review before installation rather than treating the conditioner as a standalone substitution.

Conditioner selection	330780-51-CN
Electrical length	5.0 m
Mounting option	DIN rail
System family	3300 XL 11 mm

330780-51-CN / Mount and route the conditioner connections

02 Mount and route the conditioner connections

1 Secure the DIN arrangement

Inspect the DIN mounting hardware and install the conditioner in the approved location. Keep terminal labels visible and retain access for inspection and measurements. Observe electrostatic-discharge precautions while handling the terminals and connector, and keep the electronic conditioner within its own temperature range.

2 Avoid mechanical stress on the coaxial chain

Route the probe and extension cable without sharp bends or connector loading. Finger tighten the mating ClickLoc joint as specified for the connected components, and provide the appropriate environmental protection. Do not trim the calibrated cable. The minimum bend radius for the 11 mm probe/extension arrangement is 25.4 mm.

Conditioner operating range	-52 to +100 °C
Coaxial routing	Minimum 25.4 mm bend radius
Connector loading	No unsupported cable tension
Installation access	Visible identification and serviceable terminals

330780-51-CN / Prepare power and monitor wiring

03 Prepare power and monitor wiring

1 Match the terminal arrangement

Identify power, common and signal according to the actual sensor marking and approved wiring drawing. Use suitable shielded field wiring and the supported conductor range. Bare conductors and ferruled conductors have different permitted ranges; check the installed termination before making the SpringLoc connection.

2 Verify voltage at the loaded circuit

Check the selected barrier arrangement and expected wiring voltage drop. The no-barrier supply range is -17.5 to -26 VDC; with barriers it is -23 to -26 VDC. The sensor draws up to 12 mA. Sufficient negative supply headroom is needed to retain the intended linear measurement span.

Bare conductor range	0.2–1.5 mm²
Ferruled conductor range	0.25–0.75 mm²
Current allowance	12 mA maximum
Output resistance	50 ohm

330780-51-CN / Check gap and full-chain response

04 Check gap and full-chain response

1 Set a usable target position

Evaluate the target material and available movement before accepting a gap setting. AISI 4140 steel and a 2.5 mm gap form part of the reference conditions. The normal linear interval is approximately 0.5–4.5 mm. Keep sufficient clearance for the full mechanical movement and assess neighboring-probe interaction on small targets.

2 Confirm scale at the receiving channel

Use an appropriate controlled displacement to compare the chain output with the monitor indication. Confirm the 3.94 V/mm sensitivity setting, movement direction and stable signal. A correct terminal voltage alone does not establish usable target range or monitor scaling. Record test points and investigate any departure before enabling the measurement for protection.

Nominal midpoint	2.5 mm
Normal linear span	4.0 mm
Monitor sensitivity	3.94 V/mm nominal
Recorded results	Gap, movement, output and channel indication

330780-51-CN / Release the verified 11 mm installation

05 Release the verified 11 mm installation

1 Close the compatibility review

Confirm the installed 330780-51-CN is the 5.0 m DIN configuration and that both connected transducer components are appropriate. Review the barrier arrangement, target and monitor configuration together with the recorded test results. A completed 7200 conversion must include every required transducer and monitor change.

2 Keep configuration and test evidence together

Retain component identities, cable lengths, terminal assignments, final gap and controlled-response results with the channel record. Restore the agreed alarm and bypass state only after acceptance of the complete path. The related references below support identification and do not approve a mixed-family chain or an automatic replacement.

Technical basis: Bently Nevada 3300 XL 11 mm Proximity Transducer System, 146256 Rev. T.

Related product navigation

- Bently Nevada 330730-040-00-05
- Bently Nevada 330730-040-00-00
- Bently Nevada 330730-040-12-00

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