

25 mm Differential-Expansion Cable

330854-040-24-05

EXACT COMPONENT

Bently Nevada 330854-040-24-05 is a 4.0 m high-temperature FluidLoc extension cable for the 3300 XL 25 mm proximity transducer system. It joins a compatible 25 mm probe to the matching Proximitor Sensor in a documented 5 m system.

ORDER SEGMENT 040

4.0 m extension length

ORDER SEGMENT 24

High-temperature FluidLoc, no armor

ORDER SEGMENT 05

Multiple agency approvals

SYSTEM LENGTH

1 m probe + 4 m cable = 5 m chain

CABLE, NOT SENSOR

The 330854 item carries the 25 mm probe connection to a matched Proximitor. System output and displacement range are properties of the complete transducer chain.

25 mm Chain and Ordering Map

01 PROBE	3300 XL 25 mm compatible probe; select the installed execution.
02 CABLE	330854-040-24-05: 4.0 m high-temperature FluidLoc path.
03 SENSOR	Matching 3300 XL 25 mm Proximator with 5 m system length.
04 MONITOR	Receives the Proximator output for differential-expansion observation.

MATCHED-LENGTH RULE

The probe length and extension-cable length must sum to the Proximator Sensor total length. A 1 m probe and this 4 m cable form a 5 m execution, not 9 m.

MIGRATION RULE

When upgrading a legacy 25 mm system, replace probe, cable and Proximator as a matched 3300 XL 25 mm set; do not exchange only the cable on an older system.

Cable Construction and Limits

Armor and cable option 24	High-temperature FluidLoc
Cable armoring	Unarmored
Agency approval option 05	Multiple approvals
Cable construction	75 ohm triaxial, PFA insulated FluidLoc
4 m core resistance	1.0 +/- 0.25 ohm
4 m coaxial resistance	0.3 +/- 0.1 ohm
Typical cable capacitance	69.9 pF/m
Cable operating temperature	-35 to +200 deg C
Minimum bend radius	25.4 mm
Connector mating torque	Finger tight; 0.565 N m maximum
Connector joint tensile rating	270 N maximum
Matched 5 m chain	1 m probe plus 4 m extension cable

CONTEXT

The resistance values describe the isolated 4.0 m extension. They are not the operating output of the complete 25 mm transducer system.

Engineering Decision Record

How does option 040 set the 330854-040-24-05 system length?

It selects a 4.0 m extension. Combined with a 1.0 m 3300 XL 25 mm probe, it forms the 5 m cable-and-probe length required by the matching Proximitor Sensor.

Is the 24 cable option armored?

No. Code 24 is high-temperature FluidLoc cable; the separate 25 option adds stainless-steel armor. Match the installed route and protection requirement before substitution.

What does the 05 suffix select for this 25 mm extension cable?

The 05 agency-approval option specifies multiple approvals. It does not change the 040 cable length or 24 cable construction.

Can this cable replace an 8 mm or 11 mm system cable?

No. The 330854 family is the extension cable for the 3300 XL 25 mm transducer chain; the installed probe, cable and Proximitor must be matched as one 25 mm system.

Which resistance readings are expected for the isolated 4 m cable?

The published 4 m cable readings are 1.0 +/- 0.25 ohm core-to-core and 0.3 +/- 0.1 ohm coaxial-to-coaxial. Test only after disconnecting the cable from the monitoring circuit.

What temperature range applies to the extension cable itself?

The extension cable operating and storage range is -35 to +200 deg C. Verify the cable route and connectors against that range, without applying a probe-only short-term limit to the cable.

SERVICE LIMIT

Check the exact cable ordering segments and protected high-temperature connector condition before interpreting monitor behavior.

Verified Portfolio and Source

ACCEPTANCE ROUTE

Check article identity, isolated 4 m continuity, cable routing and ClickLoc joints; then verify the matched 5 m 25 mm channel response.

RELATED BENTLY NEVADA 25 MM PAGES

01 Bently Nevada 330851-01-000-020-10-00-00

02 Bently Nevada 330851-02-000-060-10-00-00

03 Bently Nevada 330850-91-00

04 Bently Nevada 330854-080-25-00

05 Bently Nevada 330854-080-05

06 Bently Nevada 330854-040-25-05

How should the high-temperature ClickLoc joints be tightened?

Mate the connectors finger-tight. The published connector-to-connector maximum is 0.565 N m; avoid over-torque, contamination and tight bends at either joint.

Why verify the full 25 mm chain after cable replacement?

Differential-expansion performance depends on the matched probe, extension cable and Proximitor. Restore the original 5 m chain and prove the monitored response through the installed verification procedure.

MANUFACTURER SOURCE RECORD

Baker Hughes / Bently Nevada, 3300 XL 25 mm Proximity Transducer System Datasheet, 163236 Rev. M.

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



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