Bently Nevada 16710-10

01 Cable architecture and connection roles

Bently Nevada 16710-10 is a 10 ft armored interconnect cable for compatible seismic transducer installations. Three shielded conductors connect a three-socket plug to terminal lugs at the receiving end.

1 Compatible seismic transducer

2 Three-socket plug

3 Shielded three-conductor armored route

4 Terminal lugs at receiving circuit

Cable and endpoint responsibilities

The three-socket plug and terminal-lug end perform different connection roles. Socket count alone does not establish power, signal or return assignments. Identify the selected transducer and receiving channel, then use their approved wiring information to map each conductor before reconnecting the assembly.

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02 Selection data and route interpretation

Cable length	10 ft (approximately 3.1 m)
Conductors	3
Wire size	22 AWG
Signal cable shielding	Shielded construction
Mechanical protection	Armor
Sensor-end termination	3-socket plug
Receiving-end termination	Terminal lugs

Nominal length and usable reach

Ten feet is 3.048 metres by exact unit conversion; the manufacturer length table rounds this to approximately 3.1 m. Neither value adds allowance for an unexpectedly indirect route. Use the actual assembly and planned routing to verify reach.

Do not confuse an interconnect with a calibrated extension

This assembly is specified as a seismic-transducer interconnect. Do not apply proximity-system electrical-length rules or assume interchangeability with a Proximitor extension cable.

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03 Shielding and interference boundaries

Mechanical and electrical layers

The shield and armor are separate construction features. Neither should be used as a guessed circuit conductor, and armor does not by itself establish an environmental sealing rating. Final acceptance combines cable inspection and isolated electrical checks with a functional test of the complete measurement path.

Conductor	Carries its assigned sensor circuit function.
Shield	Supports the specified interference-control arrangement.
Armor	Provides mechanical protection along the route.
Connector assembly	Must mate and seal as required by the selected sensor.

A shared conductor count is not compatibility

Two sensors may both use three terminals while assigning them differently. The receiving-channel input and sensor circuit must match as well as the physical connector.

Cable checks and channel checks answer different questions

Isolated continuity can reveal an open path or unwanted cross-connection. Operational verification establishes whether the assembled sensor, cable and receiver produce the expected indication; one test does not replace the other.

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04 Diagnostic reasoning at the cable interface

What does an intermittent reading during a gentle 16710-10 cable movement suggest?

An intermittent conductor or termination is one possibility, but the symptom does not identify the faulty component by itself. With the channel safely isolated, inspect the plug and lugs and check continuity while avoiding excessive bending; then verify the complete channel.

Why can 16710-10 pass continuity testing while the operating signal remains noisy?

Continuity does not verify shield bonding, routing near interference sources or the receiver configuration. Review the approved shield termination and cable route, then compare the channel response under controlled operating conditions.

Does installing 16710-10 make the complete sensor connection waterproof?

No sealing conclusion follows from armor alone. Verify the connector mating and sealing requirements of the exact sensor, and inspect the assembled connection before use in the intended environment.

What should be checked if the receiver loses its signal immediately after a 16710-10 replacement?

First compare conductor assignments and terminal engagement with the retained wiring record. Then check the intended sensor supply and receiver setup using the approved procedure. A correct-looking plug does not establish a correct end-to-end circuit.

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05 System fit and replacement decisions

Seismic transmitter interconnection

Connect a compatible 177230 transmitter to its approved field termination, preserving the transmitter-specific circuit assignment.

Accelerometer signal routing

Use the 16710 cable family with a compatible 330400 or 330425 accelerometer and the intended receiving channel.

Replacement decision

Select the replacement by the full cable reference, connector arrangement and approved sensor wiring. Treat a change in cable length or termination method as an installation change that requires system review.

Technical basis

Bently Nevada 177230 Seismic Transmitter Datasheet, 177232 Rev. U; 330400 and 330425 Accelerometer Datasheet, 141638 Rev. AB. The 16710 cable construction applies to the 16710-10 length variant. The 10 suffix selects 10 ft, approximately 3.1 m. Sensor operating limits and connector assignments remain those of the selected transducer system.

Other Bently Nevada product references

Bently Nevada 177230-02-01-05

Bently Nevada 330101-00-25-05-11-00

Bently Nevada 330101-00-55-05-11-00

Separate references; no substitution or compatibility is implied.