Bently Nevada 16710-27

Installation, integration and commissioning field workflow

Armored Interconnect Cable. Bently Nevada 16710-27 is a 27 ft armored interconnect cable in the 16710 family, specified for compatible vibration-transducer applications.

01 Exact work package

Complete model	16710-27
Engineering role	Armored Interconnect Cable
Installed-system check	Match the complete marking and host arrangement
Cable family	16710-AA armored interconnect
Ordered length	27 ft (approx. 8.23 m)
Length-code unit	Feet; 27 selects 27 ft
Conductor count	3 conductors
Conductor size	22 AWG (0.5 mm²)
Signal shielding	Shielded cable

Before work starts

Confirm the installed drawing, complete supplied code, actual connector and approved monitoring arrangement before isolating the channel. Record the as-found state for a comparable as-left check.

02 Fit and interface

Mechanical protection	Armored construction
Equipment-end termination	Three-socket plug
Other-end termination	Terminal lugs
Published length range	3–99 ft for 16710-AA family
Documented system context	177230 Seismic Transmitter and 330450 HTAS references
Connection boundary	Verify exact installed pinout and mating device

The 27 code specifies cable length in feet. Confirm that the installed route can accommodate the assembly without unsupported bends or tension at the keyed plug; equipment-end pin assignment must come from the site drawing.

The published 16710 family construction gives separate conductors, shielding and mechanical armor. Preserve the intended signal and shield terminations rather than treating armor as a signal conductor.

System and application map

Seismic transmitter link

The 177230 literature lists 16710-AA armored cable; check the installed transmitter connector and terminal map.

Acceleration-system link

The 330450 system literature also identifies the 16710-AA cable family; follow that system drawing for the exact installation.

Armored field route

Protect the three shielded conductors along machinery while supporting the keyed plug and terminal lugs.

Maintenance replacement

Check continuity, shield termination and terminal labels before comparing the restored instrument signal with the baseline.

03 Fit, connect and prove

Marking and approval	Match the full offered order code and any approval mark to the approved site drawing.
Mechanical fit	Check the actual mounting reach, route and clearance before energizing the channel.
Connector integrity	Inspect both mating surfaces, strain relief and shield path; isolate the circuit before resistance checks.
Electrical matching	Confirm the probe, extension and sensor length as one calibrated chain, or the documented cable-to-transmitter arrangement.
Target and baseline	Use the installed target material and approved channel record when evaluating a changed indication.
As-left acceptance	Document the component identities, wiring checks and operating result before release.

Acceptance sequence

01 Identify

Compare complete marking and supplied suffixes.

02 Fit

Check connector, mounting or cable route against the installed drawing.

03 Prove

Check the connected channel and document the as-left result.

04 Engineering questions

How should the three-socket end of 16710-27 be matched to the installed instrument?	Compare the exact keyed plug and its three contacts with the equipment drawing before connection. Verify each conductor path to the corresponding lug; plug fit alone does not establish correct signal assignment.
How should the shield of 16710-27 be terminated?	Follow the installed system wiring diagram for the shield and signal return. Check for unintended multiple ground points or an open shield after fitting the lugs; do not assume the armor is the signal return.
What continuity tests are useful before installing 16710-27?	With both ends disconnected, test each conductor end to end and check for unintended conductor-to-conductor or conductor-to-armor shorts. Record the measured results with the installed terminal designations.
How should the armor of 16710-27 be routed around machinery?	Protect the armored run from abrasion, crushing, unsupported bends and hot surfaces. Follow the equipment drawing for minimum clearance and secure the cable without loading the three-socket plug.

Can 16710-27 be shortened in the field without changing the installation review?	Changing length or terminating a cut cable alters the ordered 27 ft assembly. Check the approved system drawing and connector-to-lug wiring before any alteration, then repeat continuity and insulation checks.
How can a fault in 16710-27 be distinguished from a connected sensor fault?	Disconnect the cable under the site procedure, isolate the conductor and shield paths, and test the cable separately. Reconnect a verified path before condemning the sensor or receiving electronics.
Does 16710-27 establish the electrical rating of a complete vibration channel?	No. It is an interconnect cable. Check the specific transmitter or acceleration-system document and installed device markings for supply, output, temperature and approval conditions.
What records should accompany replacement of 16710-27?	Record the complete cable code, route, plug and lug mapping, shielding termination and continuity results. Compare the restored signal with the approved baseline for the specific monitoring system.

Handover evidence

As-found identity	Record the complete marked code and installed location
Interface evidence	Photograph the fitted connector, mounting and cable route
Pre-work channel	Retain the baseline signal and monitoring configuration
As-left channel	Record the connection check and operating indication
Release decision	Compare the result with the approved machine record

Fault isolation before reconnection

Open path	With both ends isolated, test each identified conductor end to end and localize the affected leg.
Unintended short	Test between conductors, shield and armor using the approved site procedure; investigate contact or jacket damage before reconnecting.
Termination check	Compare the lugs and three-socket plug with the site pin map, then compare the restored indication with the prior operating trend.

Discuss the complete model and fitted revision with Apter Power.
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Technical basis

Bently Nevada 177230 Seismic Transmitter Datasheet, 177232 Rev. U, and 330450 High Temperature Acceleration System Datasheet, 169885 Rev. H.

Other Bently Nevada references

Bently Nevada 330103-00-16-50-02-00 | Bently Nevada 330130-085-00-02 | Bently Nevada 330903-00-04-05-02-05