Bently Nevada 21747-085-01

Engineering Installation, Diagnostic and Acceptance Guide

Bently Nevada 21747-085-01 is an 8.5 m armored extension cable for a documented legacy 7200 proximity transducer chain.

01 Job scope and identity

Complete model	21747-085-01
Product type	7200 Series armored extension cable
Manufacturer	Bently Nevada
Technical source	Bently Nevada 7200 Proximity Transducer Systems technical and ordering information

Field decisions

1 Establish identity

Capture the full marking, installed companion components and baseline before disconnection.

2 Inspect interfaces

Verify mounting, cable, connector, armor, approval and environmental boundaries.

3 Fit the exact chain

Preserve the documented probe-cable-Proximitor or sensor-monitor relationship.

4 Prove response

Use the approved stopped-machine and operating acceptance procedure.

5 Record as left

Save markings, configuration, test values and operating observations.

Installation relationships

Legacy electrical length	Use the 8.5 m cable only where probe lead plus extension agrees with the installed 7200 Proximitor record.
Armor and connectors	Support the armored route independently and confirm both legacy coaxial interfaces before connection.
Acceptance datum	Record isolated continuity, restore the documented gap or bias and prove the legacy monitor response.

Pre-work evidence

Installed drawing	Record the approved cabinet, rail, slot, terminal, cable and system references that govern 21747-085-01.
Complete marking	Capture the complete order identity and every revision or approval marking on the delivered item.
Mechanical reference	Record mounting position, fasteners, connector orientation, access clearance and support points.
Electrical interfaces	Confirm supply, signal, bus, terminal and protective-conductor assignments against the installed drawing.
Configuration state	Record jumpers, switches, addresses, firmware or project settings that apply to this hardware.

02 Pre-installation readiness

Model-specific installation decisions

Exact identity

21747-085-01 and every delivered revision or approval marking must be recorded before removal.

Installed system

legacy 7200 Series proximity transducer system companion components, channel assignment and approved machine reference must remain traceable.

Mechanical baseline

Record the as-found mounting datum, reach, lock position, target clearance, routing and connector support.

Electrical baseline

Record the applicable stopped-machine gap, bias, continuity or channel value together with test conditions.

As-left configuration

Document the final mechanical position, cable protection, connector condition and complete companion-component identities.

Functional release

Compare the final monitor indication and controlled operating response with the approved baseline before handover.

Installation precautions

Confirm the legacy chain

Do not connect until the probe lead, 8.5 m cable and Proximitor identity agree with the installed record.

Isolate before testing

Place the channel and machine in the approved maintenance state before continuity checks.

Protect the connectors

Keep both coaxial interfaces clean and dry and never use a connector as a pulling point.

Support the armor

Maintain bend clearance, abrasion protection and independent strain relief throughout the route.

Avoid transferred ratings

Do not apply adjacent 3300 XL resistance, scale or connector data to this legacy cable.

Prove the complete channel

Restore gap or bias and compare the legacy monitor response with the accepted baseline.

Companion and baseline records

Companion hardware	Record the connected drive, rack, motor, transducer, I/O base or control unit as applicable.
As-found baseline	Capture relevant voltages, currents, states, counts, fault history or channel response before removal.
Operating baseline	Record the controlled functional result after the complete system is returned to service.

Pre-installation release gates

Identity gate	The delivered marking is 21747-085-01 and all visible revision or approval details have been photographed.
Drawing gate	The installed asset, channel, mounting reference and companion-component assignments are identified on the approved record.
Mechanical gate	Mounting surface, thread or support points, access clearance and target relationship are suitable for the selected configuration.
Interface gate	Connector, conductor, shield, terminal and protective-conductor condition have been inspected before connection.
Route gate	Cable or lead routing preserves bend radius, strain relief, contamination protection and separation from damaging surfaces.
Baseline gate	The applicable stopped-machine reading and operating observation have been captured with units and test conditions.

03 Installation and commissioning

Controlled installation sequence

01 Isolate	Place the monitored machine and channel in the approved maintenance state; prove the required isolation.
02 Photograph	Capture 21747-085-01, the installed datum, connector, route and companion-component markings.
03 Measure	Record mechanical position and the applicable stopped-machine electrical reading before removal.
04 Compare	Check delivered identity, interfaces and evidence against the approved drawing and spare-parts record.
05 Install	Fit without twisting the lead; preserve thread engagement, target clearance, bend radius and strain relief.
06 Set point	Establish the operating gap or datum only with the approved stopped-machine procedure.
07 Prove	Compare local reading, monitor indication and controlled operating response with the accepted baseline.
08 Handover	Record as-left values, photographs, deviations, responsible technician and release approval.

Commissioning acceptance criteria

Mechanical fit	8.5 m 21747 extension cable with armor. Confirm the installed datum and available target travel before final tightening.
Lead or interface fit	Completes the probe-to-Proximitor path in a documented 7200 chain. Inspect the mating interface and provide independent route support.
System position	The cable belongs to a legacy 7200 chain; exact total length, connectors, Proximitor and monitor assignment govern compatibility.
As-found reference	Record the applicable stopped-machine reading and the exact companion-component identities before disconnection.
Static acceptance	Restore the documented gap, bias, continuity or channel value with the machine in the approved test state.
Functional acceptance	Compare local indication, monitor response and the controlled operating observation with the accepted machine baseline.

Deviation control	Withhold release when the delivered marking, mounting datum, interface, system length or response differs from the approved record.
Release evidence	Retain the complete marking, test conditions, measured results, photographs, reviewer and maintenance-record reference.

Acceptance test points

After mechanical fit	Record final mounting datum, engagement, lock position, target clearance and route support.
After interface connection	Confirm contact seating, conductor or shield assignment and continuity or bias as applicable.
Before energization	Reconcile companion identities, total chain configuration and monitor or collector channel assignment.
Initial energized state	Observe the local channel value and status without declaring acceptance from open-circuit voltage alone.
Controlled functional proof	Compare the returned indication and machine response with the approved operating baseline.
Final record	Attach photographs, measured values, deviations, approvals and the maintenance-record location.

04 Diagnostics and escalation

What length is selected by 21747-085-01?	The 085 field selects an 8.5 m extension cable in the legacy 21747 family.
Which mechanical protection applies to 21747-085-01?	The 01 field selects armored construction; inspect support and damage along the complete route.
Which companion components are required for 21747-085-01?	Use the matching legacy 7200 probe, Proximitor and monitor channel recorded for the machine.
How is total electrical length checked for 21747-085-01?	Add the probe lead to the 8.5 m cable and compare the total with the installed 7200 Proximitor record.

Additional diagnostic decisions

How is continuity checked on 21747-085-01?	Isolate the channel, inspect both coaxial interfaces and perform the approved end-to-end test before reconnecting.
Can 3300 XL values be applied to 21747-085-01?	No; do not transfer modern 3300 XL resistance, scale, connector or calibration data without an approved conversion.
When must 21747-085-01 be withheld from service?	Withhold release if marking, connectors, total length, route, continuity or returned response differs from the approved record.
What handover evidence is required for 21747-085-01?	Retain the full marking, companion identities, continuity results, route inspection, gap or bias and monitor response.

Escalation triggers

Identity conflict	Stop if the complete marking, suffix, revision or approval identity differs from the approved record.
Host mismatch	Escalate if the rack, carrier, backplane, terminal unit or controller assignment is not documented for 21747-085-01.
Interface damage	Do not energize with bent contacts, damaged insulation, loose retainers, contamination or heat discoloration.
Environmental breach	Review any exposure beyond the documented temperature, vibration, humidity, contamination or enclosure boundary.
Unapproved substitution	Do not transfer ratings or compatibility from an adjacent order code without manufacturer evidence.
Configuration conflict	Stop if hardware settings, firmware, channel assignment or project configuration disagree with the installed record.
Unstable measurement	Investigate noise, drift, intermittent status or inconsistent readings before replacing another component.
Failed functional proof	Keep the asset in the approved maintenance state until the complete acceptance sequence is passed and recorded.

05 Handover and evidence package

As-left verification worksheet

Exact delivered marking	21747-085-01; photograph and record any additional label detail.
Installed asset reference	Machine, bearing, train, channel and drawing identifiers.
Mechanical as found	Reach, lock position, gap reference, cable route and connector support.
Static reading as found	Gap, bias, continuity or channel value appropriate to the installed system.

Companion identities	Extension cable, Proximitor or conditioner and monitor channel markings.
Mechanical as left	Final reach, lock position, target clearance and route protection.
Static reading as left	Final gap, bias, continuity or channel value with test conditions.
Operating proof	Monitor response and machine observation accepted by the responsible authority.

Evidence quality controls

Traceability	Each value is tied to 21747-085-01, the asset location, test state, instrument and date.
Repeatability	The same approved method and comparable operating state are used for before-and-after readings.
Resolution	Recorded precision does not exceed the capability of the instrument or source document.
Reference state	Stopped, energized, loaded and process-running observations are clearly distinguished.
Change control	Every changed setting, connection or mechanical datum has an approved reason and reviewer.
Retention	Evidence remains accessible with the maintenance record for future troubleshooting and replacement review.

Model-specific application limits

Cable length	8.5 m
Mechanical protection	Armored
Required companions	Matching 7200 probe and Proximitor
Acceptance	Continuity, restored gap or bias and monitor response

Lifecycle and installed-base context

Installed-base role	The 21747 family supports legacy 7200 proximity systems and must be matched to the installed chain.
Exact selected fields	The supplied identity selects 8.5 m length and armored construction.
Replacement boundary	A 3300 XL cable is not a like-for-like substitute unless every companion component and calibration is converted.
Release evidence	Confirm cable marking, both companion identities, route, continuity and returned channel response.

Source and applicability

Verified source	Bently Nevada 7200 Proximity Transducer Systems technical and ordering information
Applicability boundary	The selected 085 length and 01 armored identity are used only within the documented legacy 7200 chain. No adjacent 3300 XL electrical ratings are transferred.

Verified related product references

Related product	Bently Nevada 330980-70-CN
Related product	Bently Nevada 330930-040-03-00
Related product	Bently Nevada 84661-96
Related product	Bently Nevada 330102-00-28-10-02-05

Engineering contact

Discuss the exact marking and installed application with Apter Power.
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