Bently Nevada 21504-00-12-10-02

Apter Power installation and commissioning guide

Bently Nevada 21504-00-12-10-02 is a 7200 Series 8 mm standard-mount proximity probe with a 3/8-24 case thread, 1.2 in case and 1.0 m integral lead.

01 / Work scope

The 21504 probe senses shaft-to-tip distance as the front end of a 7200 Series proximity transducer chain.

Selected assembly

Parameter	Selected configuration
Probe family	7200 Series 8 mm
Mounting thread	3/8-24 UNF
Lead armor	none
Unthreaded length	0.0 in
Overall case length	1.2 in
Integral lead	1.0 m nominal

System position

Boundary	Installed-system relationship
Measurement role	21504-00-12-10-02 is an 8 mm sensing probe for noncontact shaft position or vibration measurement within a matched 7200 system.
Interface boundary	Pair the probe lead and miniature coaxial connector with a suitable extension cable and 7200 Proximitor.

02 / Before installation

Its 21504 case is an unarmored 8 mm standard-mount configuration with a 3/8-24 thread. Code 00 selects no unthreaded section; code 12 sets a 1.2 in overall case.

Parameter	Selected configuration
Unthreaded length	0.0 in
Overall case length	1.2 in
Integral lead	1.0 m nominal
Connector	miniature male coaxial
System length	match probe, extension cable and Proximitor

Readiness checks

Check	Reason or action
Isolation	Make the machine and monitoring channel safe before adjusting the probe.
Thread fit	Check the 3/8-24 UNF opening and locknut against the installed mount.
Case clearance	Confirm the 1.2 in case fits the available mounting depth and target travel.
Lead protection	Route the unarmored 1.0 m lead clear of sharp edges, strain and heat.

Record the complete product marking and the installed machine drawing before removing an existing item.

03 / Mechanical and electrical fitting

Code 10 selects a nominal 1.0 m integral lead, and 02 provides the miniature male coaxial connector. Route and connect the lead as part of the selected five- or nine-metre system.

Sequence	Installation action
1. Isolation	Make the machine and monitoring channel safe before adjusting the probe.
2. Thread fit	Check the 3/8-24 UNF opening and locknut against the installed mount.
3. Case clearance	Confirm the 1.2 in case fits the available mounting depth and target travel.
4. Lead protection	Route the unarmored 1.0 m lead clear of sharp edges, strain and heat.
5. Connector care	Keep the miniature male coaxial connection clean and dry while fitting the extension.
6. Gap acceptance	Set and verify the gap with the matched Proximitor and the machine stopped as required.

Configuration-specific notes

Topic	Technical limit
Probe configuration	Options 00 / 12 / 10 / 02 select a flush section, 1.2 in case, nominal 1.0 m lead and miniature coaxial connector.
System boundary	Sensing performance applies to the calibrated probe, extension cable, Proximitor and target arrangement.

04 / Commissioning acceptance

The separate extension cable and Proximitor establish the calibrated system length. Use the installed target and monitor documentation when setting the probe gap.

Question	Engineering answer
Which sensing system uses 21504-00-12-10-02?	It is a 7200 Series 8 mm proximity probe intended for a matched transducer chain.
What is the mounting thread on 21504-00-12-10-02?	The 21504 standard-mount case uses a 3/8-24 UNF thread.
Does 21504-00-12-10-02 have an unthreaded section?	The 00 option selects 0.0 in unthreaded length.
What case length is selected for 21504-00-12-10-02?	The 12 option selects a 1.2 in overall case length.
How long is the lead on 21504-00-12-10-02?	Code 10 selects a nominal 1.0 m integral probe lead.

Acceptance record

Measurement use	Supported context
Radial vibration	Observe a shaft target for relative vibration when the installed monitor channel supports the measurement.
Axial position	Place the probe at a documented thrust-position target with a verified mechanical travel envelope.

Accept the installation only after the installed system and target configuration have been checked against the machine procedure.

05 / Service handover

Question	Engineering answer
Is the lead of 21504-00-12-10-02 armored?	The 21504 probe family has no stainless steel lead armor.
Which connector is supplied on 21504-00-12-10-02?	The final 02 selects a miniature male coaxial connector.
Does 21504-00-12-10-02 operate as a complete calibrated transducer alone?	The probe requires the appropriate extension cable and 7200 Proximitor to form the calibrated measuring system.

Service reference

Match the installed case thread, lead length, connector and full transducer chain when selecting a replacement.

Related product references

Related product	Selection note
Bently Nevada 330801-28-20-050-03-02	Separate catalogue reference
Bently Nevada 330880-01-20-058-03-02	Separate catalogue reference
Bently Nevada 21000-16-05-00-105-03-02	Separate catalogue reference
Bently Nevada 31000-16-10-15-040-03-02	Separate catalogue reference
Bently Nevada 31000-16-05-00-033-03-02	Separate catalogue reference
Bently Nevada 21504-000-040-10-02	Separate catalogue reference
Bently Nevada 330101-00-10-10-02-00	Separate catalogue reference

Technical reference: Bently Nevada 7200 Proximity Transducer Systems, 5 mm and 8 mm Technical/Ordering Information.