

BENTLY NEVADA

21505-00-12-05-02

Armored Proximity Probe

PRODUCT ROLE

Bently Nevada 21505-00-12-05-02 is a 7200-series armored 8 mm standard-mount proximity probe with a 3/8-24 case, 0.5 m integral cable and miniature male coaxial connector. It measures shaft displacement or vibration as part of a matched 7200 transducer system.

01 7200-series 8 mm standard-mount proximity probe

02 3/8-24 case with stainless-steel lead armor

03 0.5 m integral 95 ohm coaxial probe lead

04 Miniature male coaxial mating connector

Technical Data

Parameters apply to the named order code; matched-system values are identified in their labels.

PARAMETER	VALUE
Probe family	7200 5 mm / 8 mm transducer system
Base order code	21505
Probe tip	8 mm
Mounting style	Standard mount
Mounting thread	3/8-24
Lead armor	Stainless steel
Unthreaded section	0.0 in
Overall case length option	1.2 in

PARAMETER	VALUE
Integral cable length	0.5 m
Probe cable	95 ohm coaxial
Connector option	02 - miniature male coaxial
Matched-system scale factor	200 mV/mil (7.87 V/mm)
Matched-system calibrated range	80 mil (2.0 mm)
Matched-system frequency response	0 to 10 kHz
Probe and extension cable operating range	-34 to +177 C
Matched-system target	AISI 4140 steel

ENGINEERING BOUNDARY

A 21505 proximity probe is not an accelerometer. Preserve the 7200-series probe, extension-cable and Proximitor combination during replacement and test the calibrated loop as a system.

Integration and Applications

Legacy 7200 machinery monitoring

Maintain the documented 7200 gap-to-voltage sensing loop on a rotating shaft.

Armored probe replacement

Match the 21505 stainless-steel armored lead in the original mounting position.

Short integral-lead installation

Route the 0.5 m probe lead into the specified 7200 extension-cable chain.

Controlled transducer acceptance

Verify calibrated 80 mil range after the probe, cable and Proximator are matched.

MATCHED SENSING CHAIN



INSTALLATION AND COMMISSIONING NOTE

The 21505 base code identifies a proximity probe, not an accelerometer or sensor cable. Match its 7200-series probe and 0.5 m integral lead to the correct extension cable and Proximator, then verify the final calibrated system response.

Precautions and Engineering FAQ

CONTROLLED REPLACEMENT CHECKS

- 1 Confirm the 21505 label and 7200-series probe position before disconnection.
- 2 Place the monitored rotating machine in the approved safe maintenance state.
- 3 Record the 3/8-24 mounting, 1.2-inch case and zero unthreaded section.
- 4 Inspect stainless-steel armor and the 0.5 m coaxial lead for damage.
- 5 Mate the miniature male coaxial connection to the documented cable chain.
- 6 Keep the installed 7200 extension cable and Proximitor matched to the probe.
- 7 Energize under control and observe the gap-to-voltage output.
- 8 Verify the calibrated range and machine-monitor response before release.

MODEL-SPECIFIC DECISIONS

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| <p>Is 21505-00-12-05-02 an accelerometer?</p> <p>No. It is an armored 8 mm 7200-series standard-mount proximity probe for a matched gap-to-voltage transducer system.</p> | <p>How does the 21505 base differ from 21504?</p> <p>Both are 8 mm standard-mount, 3/8-24 probe families; 21505 includes stainless-steel lead armor, while 21504 does not.</p> |
| <p>What does the 12 case option mean here?</p> <p>It specifies a 1.2-inch overall probe case; the preceding 00 leaves the unthreaded section at zero.</p> | <p>Which cable length does option 05 select?</p> <p>It selects a 0.5 m integral probe cable, not a 5 m cable.</p> |
| <p>What mating connection is specified by the final 02?</p> <p>A miniature male coaxial connector; it is not an M12 waterproof connector.</p> | <p>Can the probe be evaluated as a standalone vibration sensor?</p> <p>No. The published 7200 scale and range are properties of a calibrated probe, extension-cable and Proximitor system.</p> |
| <p>What range applies to a correctly matched 7200 8 mm system?</p> <p>The calibrated system range is 80 mil (2.0 mm), starting about 10 mil from the probe face.</p> | <p>Which reference target underlies the 7200 system specifications?</p> <p>The system specifications use an AISI 4140 steel target at the stated test conditions.</p> |

Source and Related Portfolio

RELATED BENTLY NEVADA PRODUCT PAGES

01 Bently Nevada 330173-00-06-10-02-00	02 Bently Nevada 330106-05-30-10-02-00	03 Bently Nevada 330104-01-05-50-02-00
04 Bently Nevada 330909-00-25-10-02-00	05 Bently Nevada 330908-21-35-10-02-00	06 Bently Nevada 330903-00-07-10-01-00
07 Bently Nevada 330162-03-45-45-05-05-94-01-02	08 Bently Nevada 330101-00-60-90-01-05	09 Bently Nevada 330104-11-25-10-02-00

MANUFACTURER SOURCE RECORD

Bently Nevada 7200 Proximity Transducer Systems, 5 mm and 8 mm, Technical/Ordering Information (archived NASA NTRS 19960001274).

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