COMPLETE PRODUCT INFORMATION

31000-16-05-00-079-03-02

Assembly configuration

Bently Nevada 31000-16-05-00-079-03-02 is an external probe housing with a 3300 XL 8 mm probe, 0.5 m cable and 7.9 in penetration. It allows probe access through the machine case.

Item	Configuration / requirement
Assembly type	31000 English proximity probe housing
Installed probe	3300 XL 8 mm probe (option 16)
Probe cable length	0.5 m (20 in)
Standoff adapter	None
Nominal probe penetration	7.9 in (200.7 mm)
Penetration adjustment	+/-0.5 in (13 mm)
Fittings	Two plugs; 3/4-14 NPT fitting; SST reducer; cable seal grip and grommets
Reducer thread	3/4-14 NPT to 1/2-14 NPT

The complete order string identifies the supplied mechanical arrangement. The configured probe remains part of a matched transducer system with an appropriate extension cable and Proximitor.

Read the six option groups together

The code uses AA for the probe, BB for probe cable, CC for standoff, DDD for penetration, EE for fittings and FF for mounting thread. Retain the leading zeros in every group; the housing number by itself does not define the assembled configuration.

Item	Configuration / requirement
AA / BB	16 / 05 - probe selection and its cable length
CC / DDD	00 / 079 - mounting reach
EE / FF	03 / 02 - fittings package and machine interface

Technical reference: Bently Nevada 141610 Rev. R. Apter Power compilation, 28 October 2026.

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Confirm the complete configuration and supplied documentation.

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Materials and operating boundaries

Item	Configuration / requirement
Mounting thread	3/4-14 NPT
Housing material	Conductive glass-reinforced PPS
Probe sleeve and chain	AISI 304 stainless steel
Outer sleeve and screws	AISI 303 stainless steel
Enclosure protection	Type 4X; IP66
Retaining-nut torque	29.4 N m (260 in-lb)
Probe temperature range	-51 to +177 deg.C (operating and storage)

Environmental and pressure boundaries

The PPS housing protects the connection against the specified environmental exposure; it is not designed to withstand internal or external pressure. Keep process leakage contained independently of the enclosure.

Long contact with hot water or condensing steam can reduce housing strength. Apply the probe temperature range to the probe only, and separately assess enclosure, seal and cable exposure.

The retaining-nut torque applies to that nut alone. Hole-plug nuts use a separate 0.5 N m (5 in-lb) value. Inspect each fastener and sealing component before service.

Mechanical test conditions

In the typical housing-strength test, the outer sleeve was horizontal and the housing mounted through an end opening. With the cover fastened and grounding liner installed, the assembly supported 912 N applied about 38 mm from the unsupported end. This is a test configuration, not an allowable field design load.

Impact testing covers two separate 4 J impacts at -39 deg. C and 115 deg. C, and a 7 J impact at ambient temperature under the respective test approvals. Inspect a housing after impact rather than using these figures to accept visible damage.

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Applications and configuration review

Use	Installation context
Radial shaft vibration	Mount the probe radially through a machine case fixed to the bearing. The sleeve supports the sensing point, while the connected transducer system measures shaft movement relative to that mounting.
Keyphasor sensing	Use a suitable target feature and matched probe system for a once-per-turn reference. Confirm the target geometry and probe location in the machine drawing before setting the gap.
External service access	The housing allows access to the probe and cable connection without dismantling the machine. Plan a safe maintenance space around the cover and the 7.9 in penetration sleeve.
Protected cable junction	A PPS housing and stainless steel hardware protect the connection at the machine case. Select the supplied grommet for the cable and seal unused ports to maintain enclosure protection.

System selection

Match the probe, extension cable and Proximitor to the intended monitoring channel. Mechanical fit and similar connector appearance do not establish electrical compatibility. Keep the complete assembly marking in the equipment record.

Use the applicable 3300 XL 8 mm probe instructions, machine mounting drawing and site test procedure for the actual gap setting and return-to-service decision.

Select the housing for the duty

Item	Configuration / requirement
Dual axial measurement	For shaft axial position with dual probes, use the dedicated 21022 arrangement rather than assuming this radial housing is equivalent.
Explosion-proof duty	This PPS housing does not provide explosion-proof protection. A separately engineered assembly is required for that duty.
Process chemistry	High- or low-pH media can erode a probe tip assembly. Provide safe containment and assess the actual process exposure.

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Technical questions and answers

Which probe is included in 31000-16-05-00-079-03-02?

This assembly uses a 3300 XL 8 mm proximity probe with a connector. Its 16 probe option is distinct from the multiple-approval and connector-protector options; verify the actual probe marking before specifying certificates or accessories.

How far can the sleeve of 31000-16-05-00-079-03-02 be adjusted?

The nominal probe penetration is 7.9 in and the sleeve adjustment range is plus or minus 0.5 in. Set the final sensing gap using the probe instructions and machine drawing; penetration is a mechanical reach, not the operating air gap.

Does the 0.5 m cable on 31000-16-05-00-079-03-02 leave its identification label exposed?

The combined standoff and penetration is 7.9 in. This is below the 15.5 in limit for the 0.5 m probe cable, but exceeds the 2.5 in limit for keeping the cable part-number and serial-number label visible outside the sleeve. Arrange access to the marking during inspection.

What does fitting option 03 supply with 31000-16-05-00-079-03-02?

It provides two plugs, one 3/4-14 NPT fitting, a stainless steel 3/4-14 to 1/2-14 NPT reducer and a cable seal grip with grommets for the specified cable sizes. Select the matching grommet and seal unused housing openings.

Cable-seal grip selection

The option 03 grommets cover the following cable-size groups. Choose by the actual cable outside diameter and fit the seal correctly; a loose or mismatched grommet defeats the sealed entry.

Grommet range	Cable outside diameter
Small cable group	1/8 to 3/16 in
Intermediate group	1/4 to 5/16 in
Larger cable group	5/16 to 3/8 in

Keep the reducer, cable grip and plugs associated with this fitting package. Their sealing role is separate from the probe sleeve and from the external conduit support.

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Operating and purchasing questions

Can 31000-16-05-00-079-03-02 serve as an explosion-proof enclosure?

No. The PPS enclosure provides mechanical and environmental protection. Intrinsically safe use requires a suitable approved transducer system and appropriate barriers; the housing alone does not establish hazardous-area suitability.

Why does 31000-16-05-00-079-03-02 require a casing fixed to the bearing for radial vibration measurement?

A proximity probe measures shaft motion relative to its mounting reference. Movement between the casing and bearing changes that reference, so the casing must be affixed to the bearing for an accurate relative vibration signal.

What should I send when requesting a quotation for 31000-16-05-00-079-03-02?

Send the complete model, quantity, destination and required date to sales13@apterpower.com. Include the installed assembly marking and any required accessories so the offer can identify the correct probe, sleeve, fittings and scope of supply.

Can I review photos and documents before buying 31000-16-05-00-079-03-02?

Request current unit photos showing the full marking, housing, sleeve and probe cable. Ask which inspection records or certificates are available, and confirm the agreed documents and condition in the quotation before placing the order.

Related housing configurations

These are separate configurations to review, not confirmed interchangeable replacements.

Product page	Selection note
Bently Nevada 31000-27-05-00-035-03-02	Open this complete configuration and compare all ordering options.
Bently Nevada 31000-28-10-00-175-01-02	Open this complete configuration and compare all ordering options.
Bently Nevada 31000-28-10-00-175-02-02	Open this complete configuration and compare all ordering options.

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