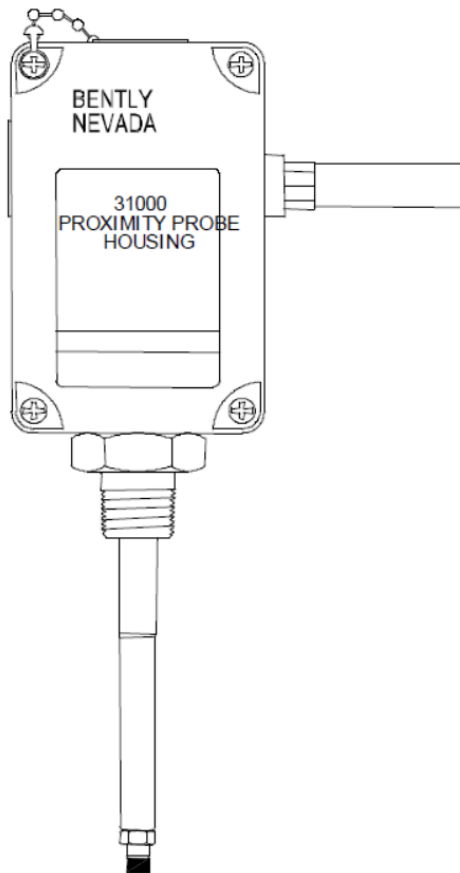


31000 and 32000 Proximity Probe Housing Assemblies

Datasheet

Cordant™

141610 Rev. P



Description

The 31000/32000 Proximity Probe Housing Assemblies are recommended when mounting proximity probes through the machine case and are typically used for radially mounted transducers, whether vibration or Keyphasor measurements.



When using these housings to measure radial vibration, ensure that the machine casing is affixed to the bearing in order to get an accurate relative vibration signal.



When measuring shaft axial position with dual proximity probes, use housing 21022 instead. Consult datasheet (document 141601).

Use of a Proximity probe housing allows external access to the proximity probe and its extension cable, permitting gap adjustment or probe replacement without disassembly of the machine. The 31000/32000 Proximity Probe Housing Assembly is made of polyphenylene sulfide (PPS), an advanced, high-strength, thermoplastic with excellent corrosion resistance. Other elements of the housing assembly are made of corrosion-resistant stainless steel. The housing can be ordered with installed 3300 XL Proximity Probes and a variety of conduit fittings.

The 31000/32000 Proximity Probe Housing Assembly is fully compliant with the American Petroleum Institute's (API) 670 Standard for externally mounted proximity probe housings.

When installed in conjunction with an approved transducer system and appropriate I.S. barriers, the 31000/32000

Ordering Information



For the detailed listing of country and product-specific approvals, refer to the [Approvals Quick Reference Guide \(108M1756\)](#).

For additional technical documentation, please log in to bntechsupport.com and access the Bently Nevada Media Library.

Table 1: Maximum "C" Option plus "D" Option for different "B" Options (probe cable length)

| Probe Cable Length | Maximum C plus D |
|--------------------|------------------|
| 0.5 meter | 394 mm (15.5 in) |
| 1.0 meter | 760 mm (30.0 in) |

Table 2: Maximum "C" Option plus "D" Option for different "B" Options (probe cable length) where P/N and S/N Label on Probe Cable is visible outside of probe sleeve

| Probe Cable Length | Maximum C plus D with Visible P/N and S/N Label |
|--------------------|---|
| 0.5 meter | 64 mm (2.5 in) |
| 1.0 meter | 483 mm (19.0 in) |



Conduit fittings are necessary when hardline conduit or metal tubing is brought into the housing. Flexible conduit should be ordered with integral 3/4-14 NPT fittings and do not require additional conduit fittings with the housing. If using flexible conduit, order the "E" = 00 option.

English Proximity Probe Housing Assemblies

31000 - AA-BB-CC-DDD-EE-FF

A: Probe with Connector

| | |
|----|--|
| 00 | Probe not required |
| 16 | 3300 XL 8 mm probe |
| 26 | 3300 XL NSv probe |
| 27 | 3300 XL NSv probe, multiple approvals |
| 28 | 3300 XL 8 mm probe, multiple approvals |
| 29 | 3300 XL 8 mm probe, with connector protector |
| 30 | 3300 XL 8 mm probe, with connector protector, multiple approvals |
| 31 | 3300 XL NSv probe with connector protector |
| 32 | 3300 XL NSv probe with connector protector, multiple approvals |
| 33 | 3300 XL 11 mm probe |
| 34 | 3300 XL 11 mm probe, multiple approvals |
| 35 | 3300 XL 11 mm probe with connector protector |
| 36 | 3300 XL 11 mm probe with connector protector, multiple approvals |

B: Probe Cable Length

| | |
|----|---|
| 00 | Probe cable not required (Option A must also be 00) |
| 05 | 0.5 m (20 in) |
| 10 | 1.0 m (39 in) |

C: Standoff Adapter Length (Option C Dimension)



Must be ordered if Standoff Adapter Length option is not 00.

| | |
|-----------|--|
| 15 | Minimum length 1.5 in (38 mm) |
| 75 | Maximum length 7.5 in (191 mm) |
| | Recommendation Order in increments of 0.5 in (13 mm) |
| | Examples 1.5 in (38 mm) = 15 No standoff adapter = 00 |

D: Probe Penetration Option (Option D Dimension)

| | |
|-----------|---|
| 10 | Minimum length 1.0 in (25.4 mm) |
| | Recommendation Order in increments of 0.1 in (3 mm) |
| | Examples No probe sleeve = 000 3.7 in (94 mm) = 037 22.4 in (569 mm) = 224 |



"C" plus "D" dimensions greater than 12 in (305 mm) require additional sleeve support near the probe to prevent resonance from occurring. Sleeve adjustment range of Probe Penetration Option "D" is ±0.5 in (13 mm).

For probe penetration lengths between 1.0 and 2.0 inches, it may be necessary to counter bore the machine case to reduce probe side view or rear view effects.

E: Fittings

| | |
|-----------|------------------------------------|
| 00 | Without fittings |
| 01 | One 3/4-14 NPT fitting, two plugs. |
| 02 | Two 3/4-14 NPT fittings, one plug. |

| | |
|----------------------------------|---|
| 03 | Two plugs, one 3/4-14 NPT fitting One 3/4-14 to 1/2-14 NPT SST reducer One cable seal grip with grommets for the following cable sizes: • 1/8 to 3/16 inches • 1/4 to 5/16 inches • 5/16 to 3/8 inches |
| 06 | One 3/4-14 NPT fitting One 3/4-14 NPT to 1/2-14 NPR SST reducer Two plugs |
| F: Mounting Thread Option | |
| 00 | No outer sleeve, retainer, or retaining nut |
| 02 | 3/4-14 NPT (Required if ordering Standoff Adapter Option). |
| 05 | 7/8-14 UNF 2A |