Bently Nevada 31000-28-05-00-066-03-02

Apter Power installation and commissioning guide

Bently Nevada 31000-28-05-00-066-03-02 is a 31000 PPS body proximity probe housing assembly configured with a 3300 XL 8 mm probe with selectable approvals and 0.5 m probe lead.

01 / Work scope

This PPS body housing gives external access to a reverse-mounted proximity probe at a machine casing.

Selected assembly

Parameter	Selected configuration
Assembly family	31000 proximity probe housing
Housing construction	PPS body
Probe selection	3300 XL 8 mm probe with selectable approvals
Probe lead	0.5 m
Standoff option	no standoff adapter
Penetration option	6.6 in probe penetration

System position

Boundary	Installed-system relationship
Machine-case context	The 31000-28-05-00-066-03-02 housing positions a proximity probe through the machinery case for an externally accessible sensing point.
Compatibility boundary	Use the selected 3300 XL 8 mm probe with selectable approvals, 0.5 m lead and 3/4-14 NPT outer mounting thread only with a verified machine opening and compatible transducer chain.

02 / Before installation

The 28 probe option selects 3300 XL 8 mm probe with selectable approvals; option 05 supplies a 0.5 m lead. Match the probe and extension cable to the installed 3300 XL 8 mm transducer system before assigning measurement performance.

Parameter	Selected configuration
Probe lead	0.5 m
Standoff option	no standoff adapter
Penetration option	6.6 in probe penetration
C plus D selection	6.6 in
Conduit fittings	two plugs, one 3/4-14 NPT fitting, one reducer and cable seal grip
Mounting option	3/4-14 NPT outer mounting thread

Readiness checks

Check	Reason or action
Isolation	Apply the site isolation procedure before opening the machine probe housing.
Mechanical fit	Check the 3/4-14 NPT outer mounting thread against the machined case opening before assembly.
Sleeve support	Support a selected C plus D length above 12 in to limit sleeve resonance.
Probe clearance	Check side-view and rear-view clearance at the chosen penetration and case geometry.

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

03 / Mechanical and electrical fitting

Option 00 specifies no standoff adapter, and 066 specifies 6.6 in probe penetration. Their selected C plus D reach is 6.6 in. Establish the final probe gap from the machine drawing and the transducer procedure.

Sequence	Installation action
1. Isolation	Apply the site isolation procedure before opening the machine probe housing.
2. Mechanical fit	Check the 3/4-14 NPT outer mounting thread against the machined case opening before assembly.
3. Sleeve support	Support a selected C plus D length above 12 in to limit sleeve resonance.
4. Probe clearance	Check side-view and rear-view clearance at the chosen penetration and case geometry.
5. Sealing	Inspect the housing seals, conduit entries and probe pressure boundary before service.
6. Commissioning	Set and verify the probe gap with the matched transducer components and machine stopped as required.

Configuration-specific notes

Topic	Technical limit
Installation relationship	The selected C plus D reach is 6.6 in. Use the machine drawing and probe gap-setting procedure to establish the installed position.
Protection	The 31000 housing provides mechanical and environmental protection, not explosion-proof containment.

04 / Commissioning acceptance

Option 03 identifies two plugs, one 3/4-14 NPT fitting, one reducer and cable seal grip; option 02 identifies 3/4-14 NPT outer mounting thread. The conduit entry, sealing arrangement and case interface must match these selected pieces.

Question	Engineering answer
What housing construction does 31000-28-05-00-066-03-02 use?	The 31000 assembly uses a PPS body housing; match its body and sleeve to the installed machine environment.
Which probe option is selected on 31000-28-05-00-066-03-02?	Code 28 selects 3300 XL 8 mm probe with selectable approvals; the probe is a component of the housing assembly.
How long is the probe lead specified for 31000-28-05-00-066-03-02?	Code 05 selects 0.5 m of probe cable. Check the remaining transducer-system length with the installed extension cable and Proximitor sensor.
How does 31000-28-05-00-066-03-02 establish its standoff position?	Code 00 specifies no standoff adapter. The actual machine position also depends on penetration option 066.
What penetration is encoded in 31000-28-05-00-066-03-02?	Option 066 denotes 6.6 in probe penetration; the C plus D selection totals 6.6 in.

Acceptance record

Measurement use	Supported context
Radial measurement	Position the probe at a documented radial vibration or position location on the machine casing.
Gap access	Use the external housing access to adjust the installed probe gap without dismantling the machine.

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

05 / Service handover

Question	Engineering answer
Which conduit pieces are associated with 31000-28-05-00-066-03-02?	Option 03 selects two plugs, one 3/4-14 NPT fitting, one reducer and cable seal grip. Confirm that the offered hardware corresponds to the complete assembly.
What mounting interface is selected for 31000-28-05-00-066-03-02?	Code 02 specifies 3/4-14 NPT outer mounting thread; do not substitute a different thread or sleeve arrangement.
When does the sleeve of 31000-28-05-00-066-03-02 need additional support?	The manufacturer calls for support when the C plus D reach exceeds 12 in. This configuration selects 6.6 in, so assess the machine layout against that limit.

Service reference

Have Bently Nevada review the installed probe, sleeve, fitting and mounting configuration before selecting a service replacement.

Related product references

Related product	Selection note
Bently Nevada 330101-00-10-10-02-00	Separate catalogue reference
Bently Nevada 330101-00-20-10-02-00	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 330801-28-20-050-03-02	Separate catalogue reference
Bently Nevada 330880-01-20-058-03-02	Separate catalogue reference

Technical reference: Bently Nevada 31000 and 32000 Proximity Probe Housing Assemblies, 141610 Rev. R.