DC-LVDT HOUSING ASSEMBLIES

Product Data Sheet

19047-01

DC-LVDT case expansion assembly

NOMINAL INPUT VOLTAGE	NOMINAL CURRENT	LVDT ELEMENT	MAXIMUM ADJUSTABLE HOUSING SPAN
-24 V DC	**25 mA**	**2000 HR-DC**	**9.25 in (234.95 mm)**

Bently Nevada 19047-01 is a DC-LVDT and housing assembly for case-expansion indication. The assembly couples a movable core to a 2000 HR-DC transducer, converting relative movement between the machine reference and its case into a continuous DC displacement signal. Its housing includes an adjustable mechanical travel arrangement for the connected linkage.

01 TECHNICAL DATA

Nominal input voltage	-24 V DC
Nominal current	25 mA
LVDT element	2000 HR-DC
Maximum adjustable housing span	9.25 in (234.95 mm)
LVDT linear range	±2.0 in (±51 mm)
Nominal scale factor	3.6 V/in (0.14 V/mm)
Frequency response (-3 dB)	10 Hz
Nominal output impedance	7 kΩ
Minimum load resistance	200 kΩ
Operating temperature	-18 to +71 °C

Bently Nevada TW8029303 Rev. D, DC-LVDT/Housing Assembly 19045, 19046, 19047; sections 1, 2 and 5

02 ADDITIONAL PRODUCT DATA

Storage temperature	-54 to +93 °C
Output linearity	±0.5% of full range
Output ripple	Less than 1% of full scale
Housing design rating	NEMA 3
Body material	400-series magnetic stainless steel

03 PRODUCT FUNCTION

The -01 housing option permits an adjustable span up to 9.25 inches; the selected travel depends on the slide-bar rider positions. This mechanical setting is distinct from the LVDT element's ±2.0-inch linear range. The transducer uses nominal -24 V DC power at 25 mA and has a nominal sensitivity of 3.6 V/in, with the mechanical linkage and receiving indicator determining the installed measuring arrangement.

04 SYSTEM COMPATIBILITY

Mount the housing rigidly with the LVDT core axis aligned to the linkage travel. Provide independent support for the linkage so that its weight is not carried by the transducer. Set the slide-bar riders for the required travel without exceeding the -01 housing limit.

05 REFERENCE

Bently Nevada TW8029303 Rev. D, DC-LVDT/Housing Assembly 19045, 19046, 19047; sections 1, 2 and 5

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