

HCA-RA Right Angle Series LVDTs

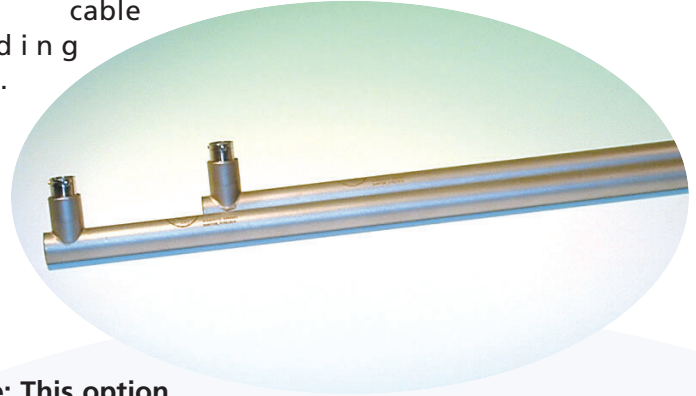


DESCRIPTION

HCA-RA right angle series LVDTs are tungsten-inert gas (TIG) welded for hermetic sealing with an easy to install radial connector termination. A design improvement to the standard HCA series, the HCA-RA has a through bore design and a right angle connection for applications where product length is an issue.

The HCA-RA series can withstand up to 1000psi of external pressure. The through bore design stops debris from being trapped inside

the body. The HCA-RA radial connector mount saves space not only in the unit length, but also in the mating connector and cable bending radius.



Note: This option is also available for the HCD, HC485, HCT, HCT-IS, GCA, GCD, GCD-SE, GC485

FEATURES

- ◆ Radial Connection
- ◆ Through Bore LVDT Body
- ◆ Hermetically Sealed Welded Housing Suitable for Hostile Environments
- ◆ Calibration Certificate Supplied with All Models
- ◆ Compatible with Schaevitz Signal Conditioners
- ◆ High Temperature (220degC) Available-Consult Factory

APPLICATIONS

- ◆ Turbine Valve Position
- ◆ Vertically Mounted Applications
- ◆ Submersible with Appropriate Connector

OPTIONS

- ◆ 5.0 and 10.0 kHz Excitation Frequency Testing*
- ◆ Metric Thread Core
- ◆ Guided Core
- ◆ Small Diameter/Low Mass Core
- ◆ Mild Radiation Resistance (Withstands 10^{12} NVT Total Integrated Flux; 10^7 Rads Gamma)

specifications:

Input voltage.....3V rms (nominal)

Frequency range.....400 Hz to 10kHz

Operating Temperature.....-65°F to 300°F

Range (-55°C to 150°C)

Null Voltage.....<0.5% FS output

Shock Survival.....1000 g for 11 sec

Vibration Tolerance.....20 g up to 2 kHz

ordering specifications:

Model	Part Number	A	B	P
050	02560413-500	1.66 [42.2]	0.59 [15.0]	0.55 [14.0]
125	02560414-500	2.50 [63.5]	1.10 [27.9]	0.96 [24.4]
250	02560415-500	3.36 [85.3]	1.80 [45.7]	1.39 [35.3]
500	02560416-500	5.05 [128.3]	3.00 [76.2]	2.23 [56.6]
1000	02560417-500	7.29 [185.2]	3.80 [96.5]	3.32 [84.3]
2000	02560418-500	10.68 [271.3]	5.30 [134.6]	5.05 [128.3]
3000	02560419-500	15.76 [400.3]	6.20 [157.5]	7.59 [192.8]
5000	02560420-500	19.70 [500.4]	6.20 [157.5]	9.56 [242.8]
10000	02560421-500	33.82 [859.0]	12.00 [304.8]	16.61 [421.9]

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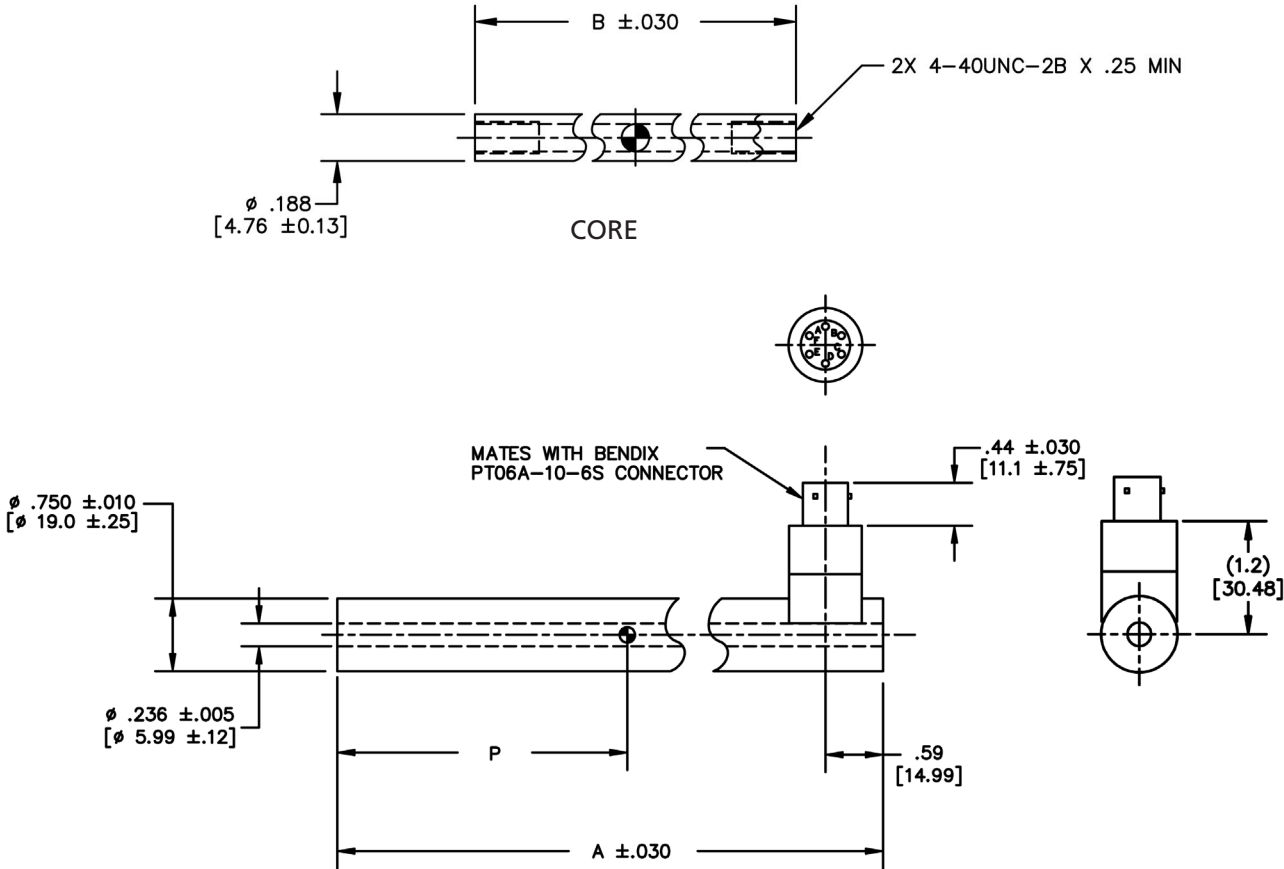
performance and electrical specifications @ 2.5 kHz¹

HCA-RA Series Model Number	Nominal Linear Range		Linearity (±% full range)				Sensitivity		Impedance		Phase Shift Degrees
	inches	mm	50	100	125	150	mV out/V in Per 0.001 in	mm	Pri Ohms	Sec Ohms	
050 HCA-RA	±0.050	±1.27	0.20	0.25	0.25	0.50	4.2	165	430	950	+6
125 HCA-RA	±0.125	±3.17	0.20	0.25	0.25	0.50	2.4	95	1710	1820	+5
250 HCA-RA	±0.250	±6.35	0.20	0.25	0.30	0.50	1.6	63	800	940	+5
500 HCA-RA	±0.500	±12.70	0.20	0.25	0.30	0.55	1.1	44	900	1150	+2
1000 HCA-RA	±1.000	±25.40	0.20	0.25	0.35	0.55*	0.84	34	900	2100	+1
2000 HCA-RA	±2.000	±50.80	0.20	0.25	0.40*	0.70*	0.34	14	525	535	-1
3000 HCA-RA	±3.000	±76.50	0.20	0.25	0.50*	1.00*	0.20	8.0	930	1040	+1
5000 HCA-RA	±5.000	±127.0	0.20	0.25	0.80*	n/r	0.16	6.4	1200	1640	-5
10000 HCA-RA	±10.00	±254	0.20	0.25	0.90*	n/r	0.13	5.0	930	3000	-6

¹ All calibration is performed at room ambient temperature.

*Requires special reduced core length

mechanical dimensions



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