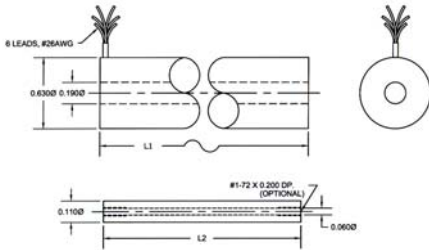
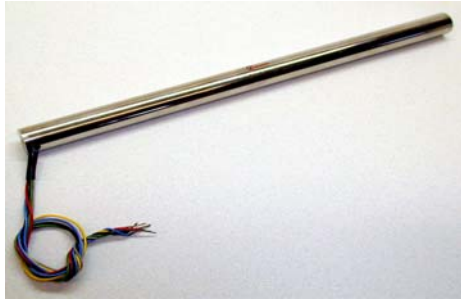


# Linear Variable Differential Transformers

# Series H

- **Displacement Ranges**  
 **$\pm 1.0''$  to  $\pm 3.0''$**
- **High Stroke-To-Length Ratio**
- **Extremely Low Null Voltage**
- **AC Operation**

The Columbia H Series LVDTs provide an exceptionally high stroke-to-length ratio while maintaining excellent performance. They are designed for use in all of the environments normally encountered in military and industrial applications where installation length is restricted. These LVDTs are constructed with a varnish impregnated coil assembly, potted and bonded into a 5/8" diameter housing. The H Series has found extensive application in position sensing and displacement measurement on large valves and remotely operated industrial process controls.



### Electrical Specifications:

**INPUT VOLTAGE:** 5.0V RMS Nominal (2.0 VA Max.)  
**FREQUENCY RANGE:** 60 Hz To 5KHz  
**NULL VOLTAGE:** <0.1% Full Scale (400 Hz)  
**INSULATION RESISTANCE:** 20 Megohms Min. @ 500 VDC

### Environmental Specifications:

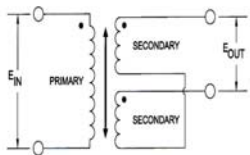
**TEMPERATURE RANGE:** -65 Deg F To +275 Deg F  
**SHOCK:** 500 G, 1 mSec  
**VIBRATION:** 20 G, 10 Hz To 2KHz  
**HUMIDITY:** 90% R.H.

### Materials:

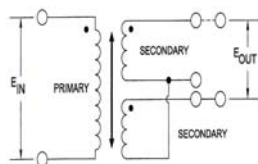
**HOUSING:** Corrosion-resistant nickel-iron alloy  
**CORE:** Hi-permeability nickel-iron alloy  
**COIL FORM:** Film insulated 304 Stainless Steel  
**LEAD WIRES:** #26 AWG Teflon insulated, 12" long  
**MAGNET WIRE:** Film insulated copper

Model	Linear Range (Inch)	Excitation Frequency (Hz)	Sensitivity (mV OUT/V IN) Per 0.001 Inch	Impedance (ohms)		Phase Shift (Degrees)	Linearity (% Full Range)	Length (Inch)		Weight (Gm)	
				Input	Output			Coil L1	Core L2	Coil	Core
H1000	2.0	60	0.16	30	40	+78 Deg	0.5%	4.5	1.76	71	1.3
		400	0.64	55	55	+34 Deg					
		1000	0.78	100	65	+15 Deg					
		3000	0.83	240	85	+4 Deg					
H2000	4.0	60	0.07	30	50	+84 Deg	0.5%	6.0	1.80	86	1.2
		400	0.40	35	95	+57 Deg					
		1000	0.70	45	150	+35 Deg					
		3000	0.92	85	200	+12 Deg					
H3000	6.0	60	0.146	25	105	-84 Deg	0.5%	10.5	3.05	146	2.5
		400	0.52	45	180	+28 Deg					
		1000	0.64	80	225	+13 Deg					
		3000	0.70	150	280	+3 Deg					

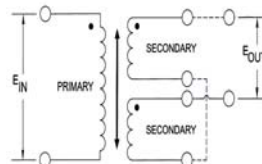
#1 – Optional 4-Wire Winding Configuration



#2 – Optional 5-Wire Winding Configuration



#3 – Standard 6-Wire Winding Configuration



### Ordering Information:

Series	Stroke: +/- X .000 Inch	Winding Configuration = X	R = Standard Temperature Range	Optional Threaded Core (See Outline)
H	x000	- Sx	R	C
1 = Optional 4-Wire Winding 2 = Optional 5-Wire Winding 3 = Standard 6-Wire Winding				

R51205

