

## Air Bearing LVDT

### Mechanical Specs

<b>Description:</b>	Linear Porous Air Bearing - long and short body versions
<b>Dimensions:</b>	3" long (2" for short body version) by .750" diameter stainless steel body (plus adjustable transformer out back end and .400" moving shaft out front, see print)
<b>Total Travel:</b>	.200 inches
<b>Pretravel to Gaging Range:</b>	Adjustable
<b>Orientation Constraints:</b>	None, operational in any orientation
<b>Probe Tip Retraction:</b>	Pneumatic probe tip retraction port
<b>Radial Compliance (measured with 100g weight):</b>	Long Body - Less than or equal to 2 microinches per gram Short Body - Less than or equal to 3 microinches per gram
<b>Tip Gaging Force:</b>	1/10 gram minimum - adjustable
<b>Probe Tip Thread:</b>	4-48
<b>Air Connection:</b>	3-56 to 1/16" I.D. hose fitting
<b>Air Pressure:</b>	60 PSIG
<b>Air Flow:</b>	<1 SCFH
<b>Air Requirements:</b>	Clean, dry air - 5 micron filtered

#### Performance and Electrical Specifications @ 10 kHz<sup>1</sup> (recommended)

MHR Series Model Number	Nominal Linear Range		Linearity (±% full range)				Sensitivity mV out/V in Per		Impedance Ohms		Phase Shift Degrees
	inches	mm	50	100	125	150	0.001 in	mm	Pri	Sec	
005 MHR	±0.005	±0.13	0.20	0.25	0.30	0.40	8.70	342	84	302	+38
010 MHR	±0.010	±0.25	0.10	0.25	0.35	0.35	6.05	238	165	300	+20
025 MHR	±0.025	±0.64	0.15	0.25	0.25	0.30	8.10	319	238	485	+15
050 MHR	±0.050	±1.27	0.15	0.25	0.35	0.50	3.15	124	419	154	+8
100 MHR	±0.100	±2.54	0.15	0.25	0.25	0.30	2.80	110	400	200	+5
250 MHR	±0.250	±6.35	0.15	0.25	0.35	0.50	2.07	86	345	420	+7
500 MHR	±0.500	±12.70	0.15	0.25	0.30	0.75	1.96	77	264	810	+4
1000 MHR	±1.000	±25.40	0.20	0.25	0.50	—	0.77	30	155	450	-1

#### Performance and Electrical Specifications @ 2.5 kHz<sup>1</sup>

MHR Series Model Number	Nominal Linear Range		Linearity (±% full range)				Sensitivity mV out/V in Per		Impedance Ohms		Phase Shift Degrees
	inches	mm	50	100	125	150	0.001 in	mm	Pri	Sec	
005 MHR	±0.005	±0.13	0.20	0.25	0.30	0.40	3.14	124	59	260	+73
010 MHR	±0.010	±0.25	0.10	0.25	0.35	0.35	3.29	129	78	192	+39
025 MHR	±0.025	±0.64	0.15	0.25	0.25	0.30	4.36	172	116	286	+38
050 MHR	±0.050	±1.27	0.15	0.25	0.35	0.50	2.55	100	141	90	+36
100 MHR	±0.100	±2.54	0.15	0.25	0.25	0.30	2.40	94	135	125	+30
250 MHR	±0.250	±6.35	0.15	0.25	0.35	0.50	1.73	68	147	268	+29
500 MHR	±0.500	±12.70	0.15	0.25	0.30	0.75	1.60	67	145	445	+19
1000 MHR	±1.000	±25.40	0.20	0.25	0.50	—	0.70	27	100	370	+6

<sup>1</sup>All calibration is performed at room ambient temperature.