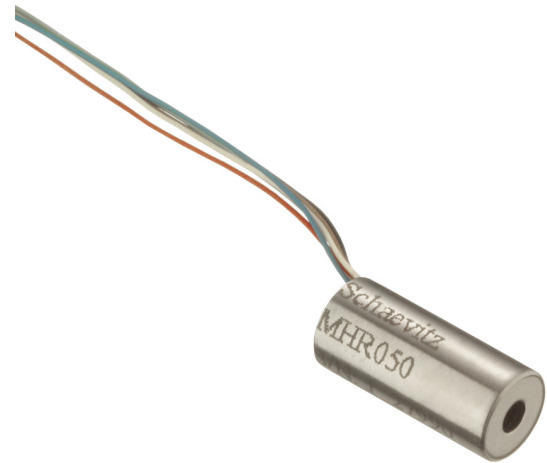


# MHR Series

The **MHR Series** of LVDTs is ideal for applications where excessive core weight could influence the motion of sensitive mechanisms. The lightweight core also helps minimize stresses and preserves the structural integrity of the core actuation assembly. High sensitivity results from close electrical coupling between coil and core. Magnetic stainless steel housing provides electromagnetic and electrostatic shielding.



## FEATURES

- For Applications Where Installation Space or Weight is Limited
- Lightweight Core
- Calibration Certificate Supplied with All Models
- Compatible with All Schaevitz® Signal Conditioners
- High Temperature (220 °C) and High Pressure (vented case) Available – Consult Factory

## APPLICATIONS

- Sensitive, Lightweight Devices

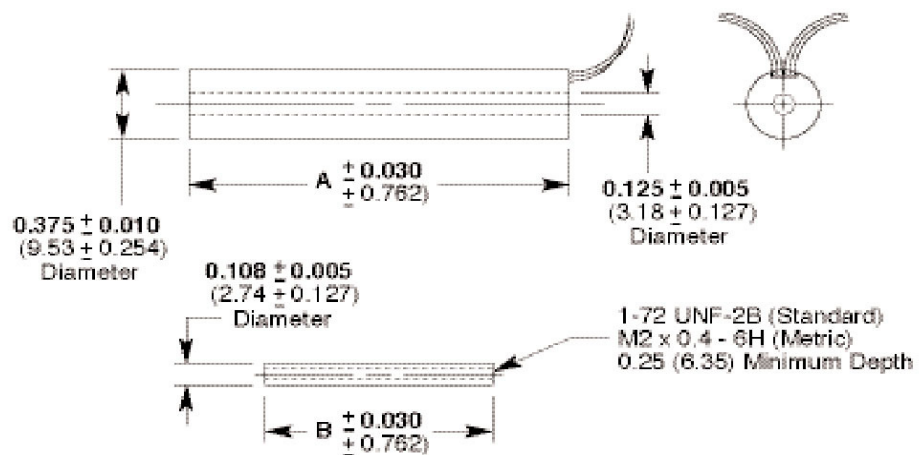
## OPTIONS

- Alternative 5.0 and 10.0 kHz Excitation Frequency Testing
- Metric Thread Core

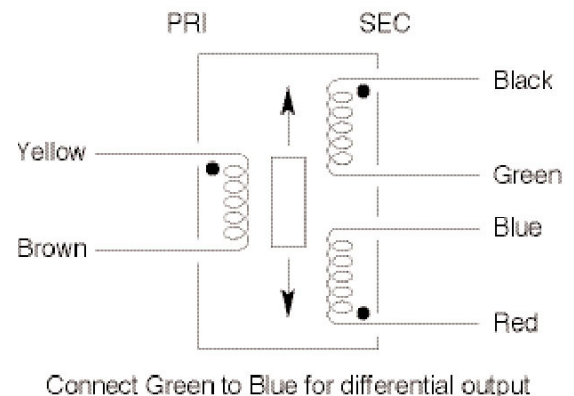
## Specifications

Input Voltage	3 V rms (nominal)
Frequency Range	2 kHz to 20 kHz
Operating Temp Range	-65F to 300F (-55C to 150C)
Null Voltage	<0.5% full scale output
Shock Survival	1,000 g for 11 msec
Vibration Tolerance	20 g up to 2 kHz
Coil Form Material	High Density, glass-Filled Polymer
Housing Material	AISI 400 Series Stainless Steel
Lead Wires	32 AWG, Copper, Teflon Insulated, 12 Inches long

## dimensions



## wiring



### Performance and electrical specifications @ 10kHz (recommended)

HR Series Model Number	Nominal Linear Range		Linearity				Sensitivity mV/V		Impedance (Ohms)		Phase Shift
	Inches	mm	50	100	125	150	0.001 in	Mm	Pri	Sec	Degrees
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	-	.77	30	155	450	-1

### Performance and electrical specifications @ 2.5 kHz

HR Series Model Number	Nominal Linear Range		Linearity				Sensitivity mV/V		Impedance (Ohms)		Phase Shift
	Inches	mm	50	100	125	150	0.001 in	Mm	Pri	Sec	Degrees
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

### Mechanical specifications

HR Series Model Number	Weight		Core			A (Body)		Dimensions		B (Core)	
	oz	gm	oz	gm	In	mm	In	mm	In	mm	
005 MHR	0.07	2	0.004	0.1	0.38	9.7	0.18	4.6			
010 MHR	0.11	3	0.007	0.2	0.54	13.7	0.23	5.8			
025 MHR	0.18	5	0.016	0.4	0.66	16.8	0.40	10.2			
050 MHR	0.21	6	0.016	0.4	0.80	20.3	0.50	12.7			
100 MHR	0.21	6	0.025	0.5	1.00	25.4	0.62	15.7			
250 MHR	0.32	9	0.032	0.9	1.85	47.0	1.12	28.4			
500 MHR	0.60	17	0.056	1.6	3.30	83.8	2.00	50.8			
1000 MHR	0.92	26	0.088	2.5	5.60	142.2	3.00	76.2			

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## ordering info

Specify the HR Model followed by the desired option number(s) ordered together.

### Ordering Example:

**Model Number 050MHR-009** is an MHR Series LVDT with a ±0.05" range (050 HR), with 10 kHz testing (003), Metric thread core (006)

## HR Model

005 MHR  
010 MHR  
025 MHR  
050 MHR  
100 MHR  
250 MHR  
500 MHR  
1000 MHR

## options

Number	Description
002	5.0 kHz Linearity Test
003	10 kHz Linearity Test
006	Metric Thread Core