

# MP-Series

Hostile Industrial Environments LVDT

## DESCRIPTION

The **MP Series** of LVDTs is suitable for heavy industrial use. Its coils are encapsulated in an anodized extruded aluminum housing, providing protection against electromagnetic and electrostatic interference. A heavy-duty terminal barrier strip replaces lead wires. A Teflon boreliner is standard equipment.



## FEATURES

- ◆ Encapsulation Guards Against Harsh Industrial Conditions
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- ◆ Mounting Flanges Permit Rapid Installation
- ◆ Screw Terminal Wiring
- ◆ Calibration Certificate Supplied with All Models
- ◆ Compatible with All Schaevitz® Signal Conditioners

## APPLICATIONS

- ◆ Industrial

## OPTIONS

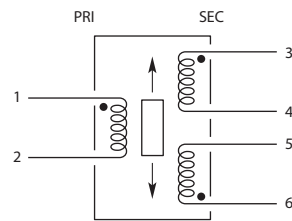
- ◆ 5.0 kHz Excitation Frequency Testing\*
- ◆ Metric Thread Core
- ◆ Small Diameter/Low Mass Core

\* Performance and electrical specifications for alternative frequencies will differ from the standard specifications listed below which are based on a 2.5 kHz excitation frequency. Consult factory for further information.

## specifications

<b>Input Voltage</b>	3 V rms (nominal)
<b>Frequency Range</b>	400 Hz to 5 kHz
<b>Operating Temperature</b>	-65°F to 300°F
<b>Range</b>	(-55°C to 150°C)
<b>Null Voltage</b>	<0.5% full scale output
<b>Shock Survival</b>	1,000 g for 11 msec
<b>Vibration Tolerance</b>	20 g up to 2 kHz
<b>Coil Form Material</b>	High density, glass-filled polymer
<b>Outer Housing Material</b>	Anodized aluminum
<b>Inner Housing Material</b>	AISI 400 series stainless steel
<b>Electrical Termination</b>	6-terminal barrier strip

## wiring



Connect (4) to (5) for differential output

# MP-Series

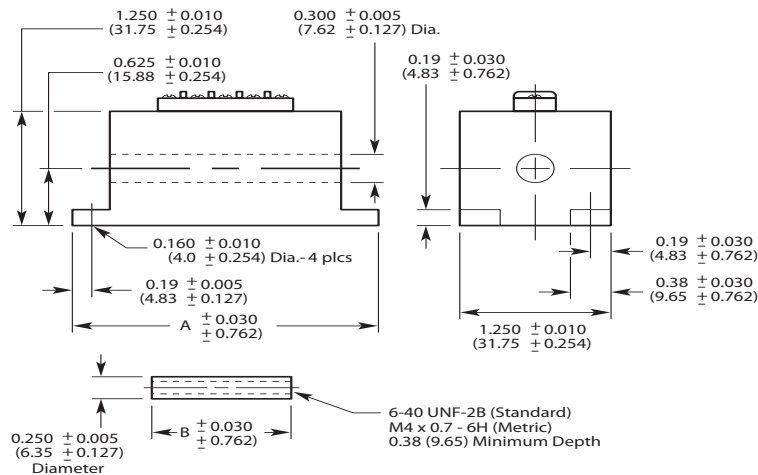
## performance and electrical specifications @ 2.5 kHz<sup>1</sup>

MP Series Model Number	Nominal Linear Range		Linearity ( $\pm\%$ full range)				Sensitivity mV out/V in Per		Impedance Ohms		Phase Shift
	inches	mm	50	100	125	150	0.001 in	mm	Pri	Sec	Degrees
	500 MP	$\pm 0.500$	$\pm 12.70$	0.15	0.25	0.35	0.75	0.7	25.6	460	375
1000 MP	$\pm 1.00$	$\pm 25.4$	0.25	0.25	1.00	1.30*	0.39	14.2	460	320	-3
2000 MP	$\pm 2.00$	$\pm 50.8$	0.25	0.25	0.50*	1.00*	0.23	8.3	330	330	+5
3000 MP	$\pm 3.00$	$\pm 76.2$	0.15	0.25	0.50*	1.00*	0.25	9.1	315	830	+11
4000 MP	$\pm 4.00$	$\pm 101.6$	0.15	0.25	0.60*	1.00*	0.20	7.1	275	550	+1
5000 MP	$\pm 5.00$	$\pm 127.0$	0.15	0.25	1.00*	n/r	0.14	5.5	310	400	+3
10000 MP	$\pm 10.0$	$\pm 254$	0.15	0.25	1.00*	n/r	0.07	2.8	550	750	-5

\* Requires special reduced core length

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

## dimensions



## mechanical specifications

MP Series Model Number	Weight				Dimensions			
	Body		Core		A (Body)		B (Core)	
	oz	gm	oz	gm	in	mm	in	mm
500 MP	12.36	350	0.64	18	6.50	165.1	3.45	87.6
1000 MP	16.59	470	0.74	21	7.64	194.1	4.00	101.6
2000 MP	21.00	595	0.95	27	11.01	279.7	5.30	134.6
3000 MP	26.12	740	0.99	28	13.85	351.8	5.60	142.2
4000 MP	31.77	900	1.27	36	16.68	423.7	7.00	177.8
5000 MP	36.18	1025	1.27	36	18.92	480.6	7.00	177.8
10000 MP	60.89	1725	1.52	43	31.90	810.3	8.50	215.9

## ordering information

Specify the MP Model followed by the desired option number(s) added together.

### Ordering Example:

**Model Number 500 MP-028** is an MP Series LVDT with a  $\pm 0.500$ " range (500 MP), with 5 kHz testing (002), Metric thread core (006), and a small diameter core (020).

## MP model

500 MP  
1000 MP  
2000 MP  
3000 MP  
4000 MP  
5000 MP  
10000 MP

## options

Number	Description
002	5.0 kHz Linearity Test <sup>1</sup>
006	Metric Thread Core
020	Small Diameter/Low Mass Core

<sup>1</sup>Available on model 500 MP only.

<sup>2</sup>Consult factory for mass, dimensions and thread size.