

## AC-LVDT Position Sensors, S and M Series

The S and M series AC-LVDT's feature ordered layer winding on metal coil forms, instead of the random winding on plastic coil forms used in most other LVDT's offered in the market. This results in improved stability, accuracy, and unit to unit uniformity. Encapsulation and shielding make them environmentally resistant.

The S model is particularly suitable for industrial environments requiring moderate accuracy, but where ruggedness, price and reliability are paramount.

The M model with its small size and higher linearity is ideal for research and laboratory applications.



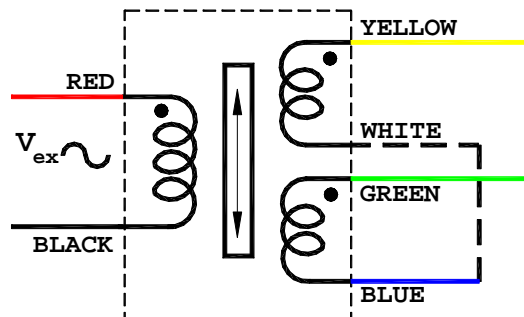
### SPECIFICATIONS

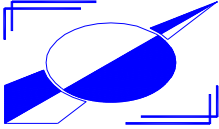
	MODEL S	MODEL M
RANGES (mm)	±2.5 to +/-250	±0.5 to +/-25
LINEARITY	0.25%FR typ. (1)	0.15%FR typ. (2)
RESOLUTION	Virtually infinite	
EXCITATION, NOMINAL	5Vrms @ 2.5KHz	5Vrms @ 5KHz
EXCITATION, RANGE	0 TO 10Vrms @ 0.4 to 20KHz	
OPERATING TEMPERATURE (°C)	-30 to 90	
STORAGE TEMPERATURE (°C)	-55 to 110	
VIBRATION	20g, 10 to 2,000 Hz	
SHOCK	500g, 11ms	
HOUSING MATERIAL	Stainless Steel, 400 series	Nickel alloy
LEAD WIRES	#28 AWG, 300 mm long Plated stranded copper wire, teflon insulated	#30 AWG, 300 mm long Plated stranded copper wire, teflon insulated

- (1) Except 0.5%FR for the S10 model  
 (2) Except 0.25%FR for the M1 model

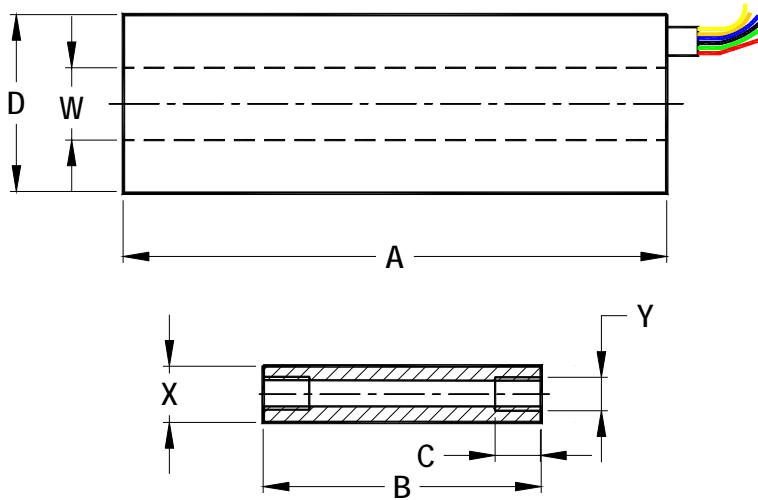
### WIRING

Wired for differential output





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## COMMON DIMENSIONS (mm)

	MODEL S	MODEL M
D	19.0	9.5
W	7.7	3.75
X	6.0	2.8
Y	M3x0.5	M2x0.4
C	10 min	8 min

## PERFORMANCE AND DIMENSIONS

S Series @ 2.5 KHz  
M Series @ 5 KHz

MODEL	RANGE (mm)	LINEARITY (% F.R.)	SCALE FACTOR ( $V_{out}/mm/V_{ex}$ )	IMPEDANCE ( $\Omega$ )		WEIGHT (gram)		A (mm)	B (mm)
				$Z_{in}$	$Z_{out}$	Body	Core		
<b>S.1</b>	$\pm 2.5$	$\pm 0.25$	0.100	500	500	50	4	36	20
<b>S.2</b>	$\pm 5.0$	$\pm 0.25$	0.045	1000	800	70	8	61	43
<b>S.5</b>	$\pm 12.5$	$\pm 0.25$	0.035	700	900	125	14	109	74
<b>S1</b>	$\pm 25.0$	$\pm 0.25$	0.030	500	700	170	16	150	84
<b>S2</b>	$\pm 50$	$\pm 0.25$	0.015	500	800	315	30	275	162
<b>S5</b>	$\pm 125.0$	$\pm 0.25$	0.005	850	750	650	55	570	295
<b>S10</b>	$\pm 250.0$	$\pm 0.50$	0.003	900	800	1050	105	1100	560
<b>M.02</b>	$\pm 0.5$	$\pm 0.15$	0.25	300	250	4	0.3	13	9.5
<b>M.05</b>	$\pm 1.25$	$\pm 0.15$	0.16	420	220	6	0.5	20	14.5
<b>M.1</b>	$\pm 2.5$	$\pm 0.15$	0.13	650	350	9	0.7	28	19.6
<b>M.2</b>	$\pm 5.0$	$\pm 0.15$	0.08	1200	1000	15	1.3	51	35.0
<b>M.5</b>	$\pm 12.5$	$\pm 0.15$	0.033	2500	500	26	2.0	86	56.0
<b>M1</b>	$\pm 25.0$	$\pm 0.25$	0.02	850	450	37	2.6	125	72.0

Rev. D

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