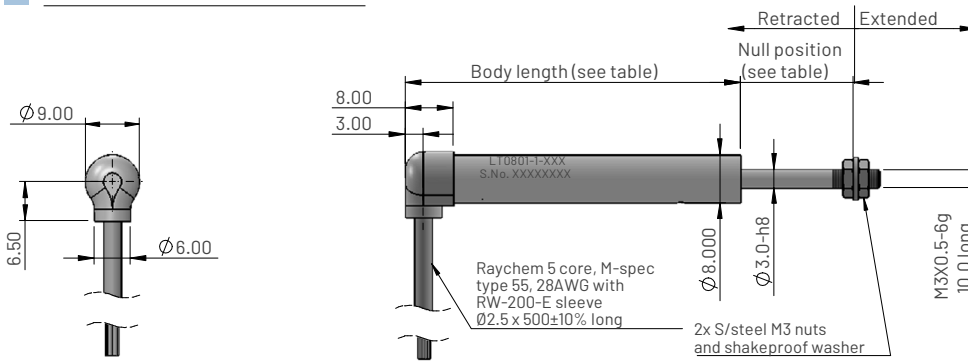


LT0801 Series - LVDT position sensor (10mm to 40mm measurement range)

Ø8mm Ultra-slim, ultra-compact. Clamp mounting.

Dimensions for LT0801-1-XX



Ordering code

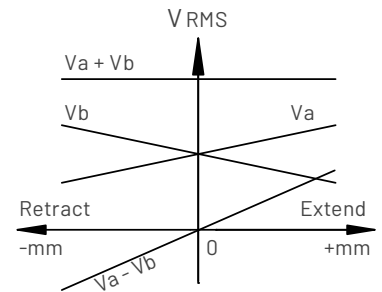
LT0801-1-XX

Measurement range in mm

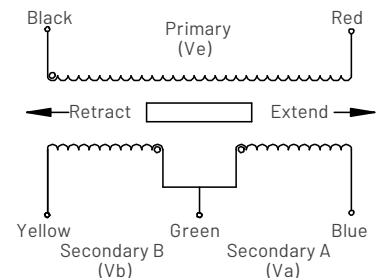
Electrical and mechanical specification

Parameters	Values				Units	Tol	Notes
Measurement range (MR)	10	20	25	40	mm		
Electrical stroke	±5.0	±10.0	±12.5	±20.0	mm		
Mechanical stroke	±6.0	±11.0	±13.5	±21.0	mm	Max	
Body length	37.7	51.0	55.9	69.5	mm	±0.5	
Null position	11.0	16.0	19.0	26.0	mm	±1.0	
Input voltage (Ve)	3.0				Vrms	±5%	1
Input frequency	2500				Hz	±5%	
Non-linearity	<±0.5				% FS		3, 6
Ratiometric sensitivity	0.0571	0.0530	0.0324	0.0201	R/mm	±3%	2, 3
Va and Vb voltage range	0.562 - 1.010	0.394 - 1.283	0.679 - 1.604	0.658 - 1.544	Vrms	Nom	4, 5
(Va + Vb)/Ve Summation ratio	0.524	0.559	0.761	0.734	Vrms/Ve	±20%	
Thermal drift	<±0.010				%FS/°C		6, 7
Input impedance	>150				Ohms		
Insulation resistance	>100				Mohms		8
Operating temperature range	-55 to +135				°C		
IP rating	IP67						
Weight (excluding cable)	28	36	40	48	grams	Nom	
Materials	Housing - Stainless steel 416, Shaft - Stainless steel 316						

LVDT AC Output schematic



Electrical connections



Notes

- Sine waveform. THD <3%.
- Ratiometric measurement mode (R) is defined as $(V_a - V_b)/(V_a + V_b)$.
- Non-linearity error and ratiometric sensitivity is calculated by least squares best fit method.
- V_a and V_b are ratiometric with V_e .
- Blue (V_a) increases and Yellow (V_b) decreases as shaft extends (as shown in Output schematic).
- FS is defined as ratiometric sensitivity x measurement range (MR).
- Average thermal drift over operating temperature range.
- Between prim and sec coils and all coils to case at 500Vdc.