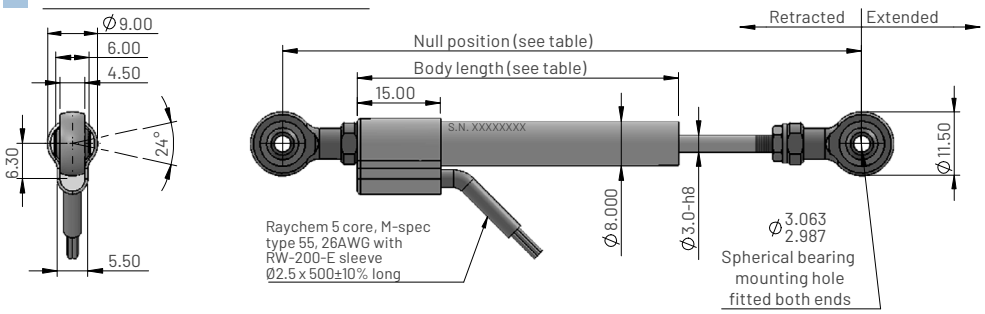
LT0822 Series - LVDT position sensor (25mm to 60mm measurement range)

Ø8mm Ultra-slim, ultra-compact. Rod-end mounting.

Dimensions for LT0822-1-XX



Ordering code

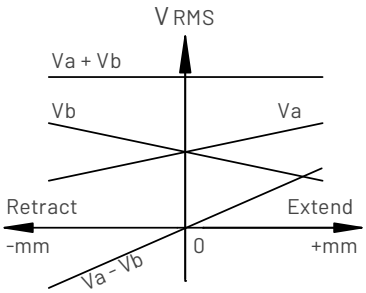
LT0822-1-XX

Measurement range in mm

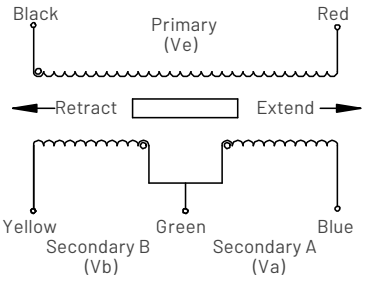
Electrical and mechanical specification

Parameters	Values				Units	Tol	Notes
Measurement range (MR)	25	40	50	60	mm		
Electrical stroke	±12.5	±20.0	±25.0	±30.0	mm		
Mechanical stroke	±13.5	±21.0	±26.0	±31.0	mm	Max	
Body length	58.0	71.0	81.0	93.0	mm	±0.5	
Null position	104.0	124.5	140.0	157.0	mm	±1.0	
Input voltage (Ve)	3.0				Vrms	±5%	1
Input frequency	5000				Hz	±5%	
Non-linearity	<±0.5				% FS		3, 6
Ratiometric sensitivity	0.0361	0.0254	0.0175	0.0153	R/mm	±3%	2, 3
Va and Vb voltage range	0.723 - 1.911	0.567 - 1.737	0.655 - 1.673	0.575 - 1.552	Vrms	Nom	4, 5
(Va + Vb)/Ve Summation ratio	0.878	0.768	0.776	0.709	Vrms/Ve	±20%	
Thermal drift	<±0.005				%FS/°C		6, 7
Input impedence	>120				Ohms		
Insulation resistance	>100				Mohms		8
Operating temperature range	-55 to +135				°C		
IP rating	IP67						
Weight (excluding cable)	13	15	19.5	21	grams	Nom	
Materials	Housing - Stainless steel 416, Shaft - Stainless steel 316						

LVDT AC Output schematic



Electrical connections



Notes

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

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