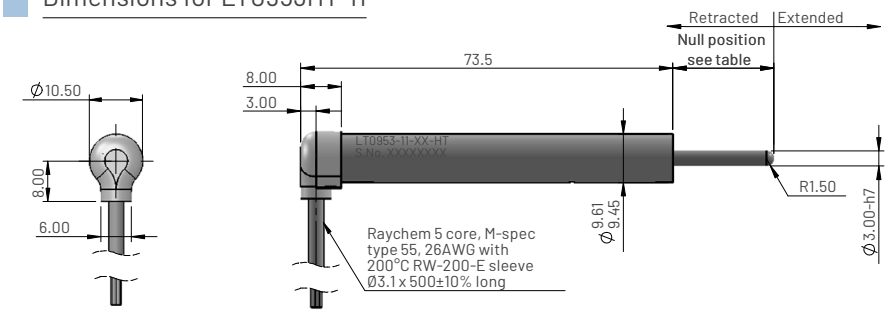
LT0953HT Series - LVDT Sprung-loaded Shaft (5 to 20mm measurement range)

Ø9.5mm Ultra compact body **(High Temperature model)**

Dimensions for LT0953HT-11

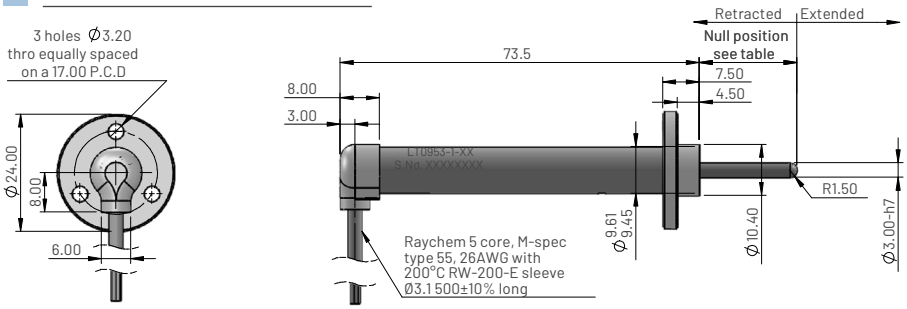


Ordering code

LT0953HT-11-XX

Measurement range in mm

Dimensions for LT0953HT-12



Ordering code

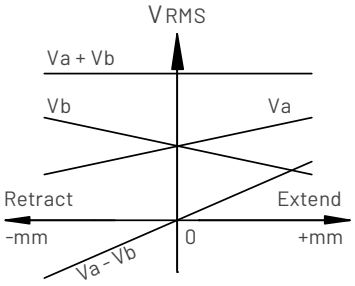
LT0953HT-12-XX

Measurement range in mm

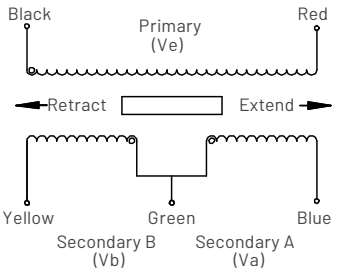
Electrical and mechanical specification

Parameters	Values				Units	Tol	Notes
Measurement range (MR)	05	10	15	20	mm		
Electrical stroke	±2.5	±5.5	±7.5	±10.0	mm		
Mechanical stroke	±3.5	±6.5	±8.5	±11.0	mm	Max	
Null position	12.5	15.0	17.5	20.0	mm	±0.5	
Input voltage (Ve)	3.0				Vrms	±5%	1
Input frequency	2500				Hz	±5%	
Non-linearity	<±0.5				% FS		3, 6
Ratiometric sensitivity	0.0492				R/mm	±5%	2, 3
Va and Vb voltage range	0.787 - 1.007	0.676 - 1.118	0.566 - 1.228	0.456 - 1.338	Vrms	Nom	4, 5
(Va + Vb)/Ve Summation ratio	0.598				Vrms/Ve	±20%	
Thermal drift	<±0.010				%FS/°C		6, 7
Input impedence	>150				Ohms		
Insulation resistance	>100				Mohms		8
Operating temperature range	-55 to +200				°C		
IP rating	IP67						
Weight (excluding cable)	40				grams	Nom	
Shaft operating force	330 - 480	390 - 520	280 - 600	200 - 700	grams	+20%	
Materials	Housing - Stainless steel 410, 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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