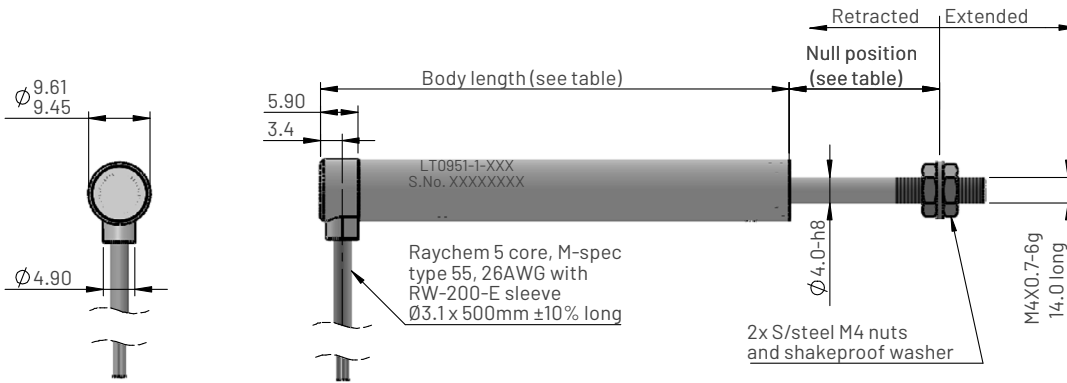


# LT0950 Series - LVDT Position Sensor (25mm to 200mm stroke)

Ø9.5mm Ultra compact, Clamp mounting

## Dimensions for LT0951-1

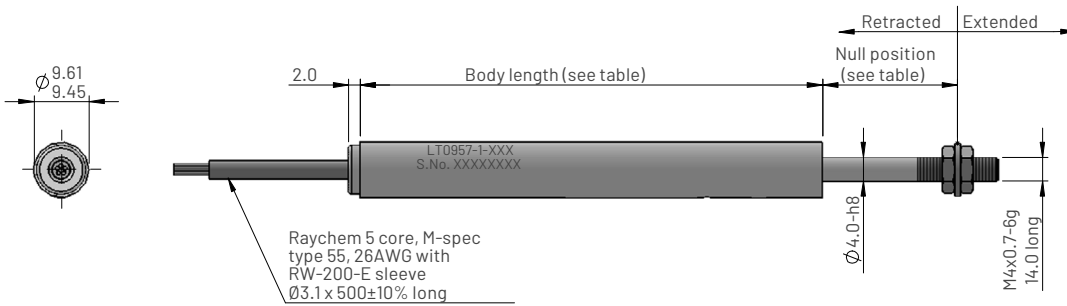


## Ordering code

LT0951-1-XXX

Measurement range in mm

## Dimensions for LT0957-1



## Ordering code

LT0957-1-XXX

Measurement range in mm

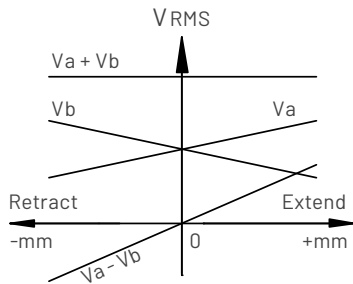
## Electrical and mechanical specification

Parameters	Values						Units	Tol	Notes
Measurement range (MR)	025	050	075	100	150	200	mm		
Electrical stroke	±12.5	±25.0	±37.5	±50.0	±75.0	±100.0	mm		
Mechanical stroke	±13.5	±26.0	±38.5	±51.0	±76.0	±101.0	mm	Max	
Body length LT0951	73	98	123	164	216	265	mm		
Body length LT0957	82	107	132	173	225.3	274.3	mm		
Null position LT0951	30.5	43.0	55.5	68.0	93.0	118.0	mm	±0.5	
Null position LT0957	23.0	36.0	48.5	60.5	86.0	111.0	mm	±0.5	
Input voltage (V <sub>e</sub> )	3.0						V <sub>rms</sub>	±5%	1
Input frequency	2500						Hz	±5%	
Non-linearity	<±0.5						% FS		3, 6
Ratiometric sensitivity	0.0264	0.0155	0.0094	0.0096	0.0072	0.0065	R/mm	±5%	2, 3
V <sub>a</sub> and V <sub>b</sub> voltage range	0.520 - 1.031	0.671 - 1.519	1.012 - 2.114	0.710 - 2.020	0.600 - 2.010	0.431 - 2.030	V <sub>rms</sub>	Nom	4, 5
(V <sub>a</sub> + V <sub>b</sub> )/V <sub>e</sub> Summation ratio	0.52	0.73	1.042	0.91	0.87	0.82	V <sub>rms</sub> /V <sub>e</sub>	±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) LT0951	33	44	58	71	97	119	grams	Nom	
Weight (excluding cable) LT0957	34	47	58	74	96	116	grams	Nom	
Materials	Housing - Stainless steel 416, Shaft - Stainless steel 316								

**Notes**

1. Sine waveform. THD <3%.
2. Ratiometric measurement mode (R) is defined as  $(V_a - V_b) / (V_a + V_b)$ .
3. Non-linearity error and ratiometric sensitivity is calculated by least squares best fit method.
4.  $V_a$  and  $V_b$  are ratiometric with  $V_e$ .
5. Blue ( $V_a$ ) increases and Yellow ( $V_b$ ) 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.

**LVDT AC Output schematic**



**Electrical connections**

