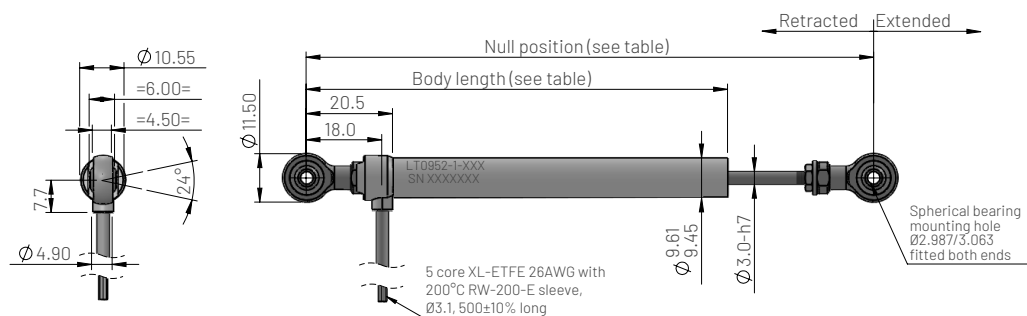


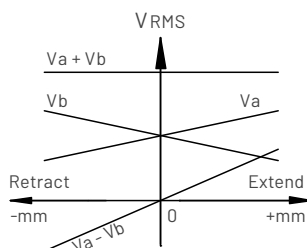
**LT0952-1 AC LVDT Contactless Linear Position Sensors****Short stroke, 3mm rod-end mounting, Ultra-slim 9.53mm body diameter, 10mm to 75mm measurement range****Active  
sensors****Ordering information****LT0952-1-XXX**

Measurement range in mm

| Parameters                   | Values                                                     |             |             |             | Units   | Tol  | Notes |
|------------------------------|------------------------------------------------------------|-------------|-------------|-------------|---------|------|-------|
| Measurement range (MR)       | 010                                                        | 025         | 050         | 075         | mm      |      |       |
| Electrical stroke            | ±5.0                                                       | ±12.5       | ±25.0       | ±37.5       | mm      |      |       |
| Mechanical stroke            | ±5.5                                                       | ±13.0       | ±25.5       | ±38.0       | mm      | Max  |       |
| Body length                  | 75                                                         | 100         | 125         | 150         | mm      | ±0.5 |       |
| Null position                | 103.0                                                      | 135.0       | 173.0       | 210.0       | 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      | 0.0800                                                     | 0.0422      | 0.0152      | 0.0094      | R/mm    | ±5%  | 2, 3  |
| Va and Vb voltage range      | 0.540-1.260                                                | 0.404-1.306 | 0.623-1.387 | 0.895-1.868 | Vrms    | Nom  | 4, 5  |
| (Va + Vb)/Ve Summation ratio | 0.60                                                       | 0.57        | 0.67        | 0.92        | 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)     | 34                                                         | 40          | 50          | 60          | grams   | Nom  |       |
| Materials                    | Housing - Stainless steel 400, 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**