

Linear Displacement Sensor Models LH and LHS

This is a low cost replacement for DC- LVDT's and other linear motion sensors, consisting of a tubular housing and a permanent magnet core free to move inside it. No windings, no coils, no signal conditioning electronics needed. Patent pending.

The sensor is available in a single supply / differential output version, and a double supply/single ended output version.

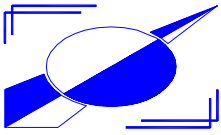
Some of its outstanding features:

- ❖ Wide temperature range
- ❖ Small size
- ❖ Excellent environmental resistance
- ❖ No output ripple
- ❖ No need for signal conditioning electronics
- ❖ No need for regulated supply
- ❖ DC to 10 kHz frequency range

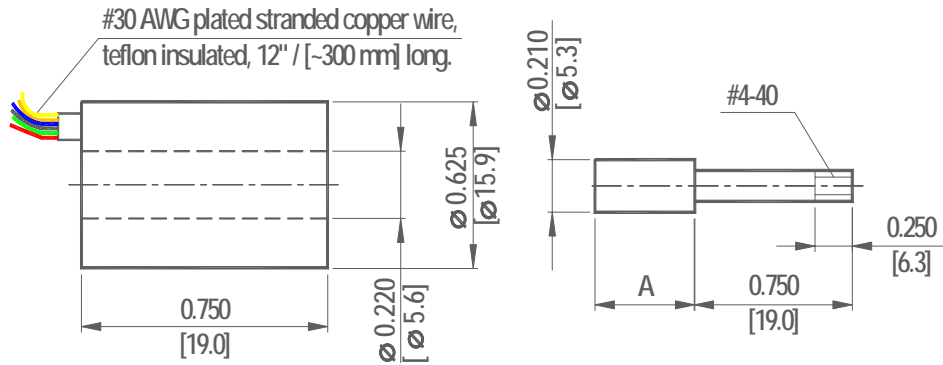


| SPECIFICATIONS | LH MODEL | LHS MODEL |
|----------------------|--|-----------------------------|
| Non-linearity error* | 0.5%FR , typ. | |
| Supply (nominal) | 12 VDC, 20mA | ±12 VDC, 20mA |
| Output regulation | 0.2% /V, Vex = 10 to 18V | 0.2 %/ V, Vex = ±10 to ±17V |
| Full scale output | ±1 to ±2V differential | ±5VDC single ended |
| T.C of zero | 0.01 to 0.03% FR /°C typ. , depending on range | |
| T.C of span | 0.03%/°C typ. , - 20 to 70°C | |
| Temperature range* | - 55 to 125°C | -55 to 95°C |
| Frequency response | 0 to 10 kHz | |
| Housing material | Stainless steel | |

* Non-linearity error defined as maximum deviation from the best straight line, in percents of the full measuring range.



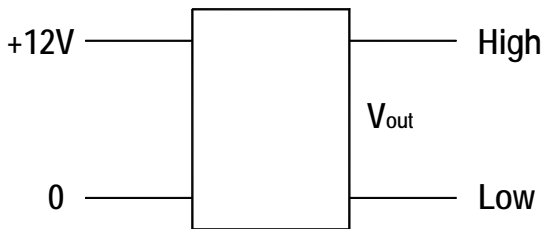
Dimensions (inch / [mm])



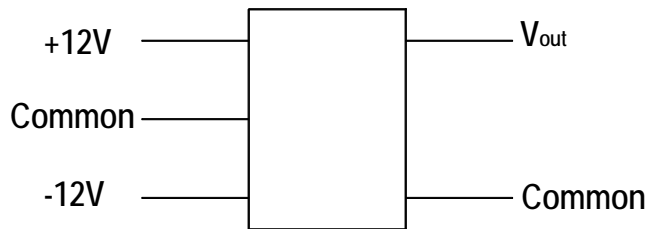
| MODEL | LINEAR RANGE (inch[mm]) | A (inch[mm]) | WEIGHT (GRAM) |
|---------------|----------------------------|-----------------|---------------|
| LH.05, LHS.05 | ±0.050 [±1.27] | 0.500 [12.7] | 3.0 |
| LH.1, LHS.1 | ±0.100 [±2.54] | 0.625 [15.9] | 3.5 |
| LH.2, LHS.2 | ±0.200 [±5.08] | 0.750 [19.0] | 4.0 |

Wiring

MODEL LH



MODEL LHS



RED +12V
 WHITE 0
 GREEN V_{out} High
 BLUE V_{out} Low

RED +12V
 WHITE Common
 BLACK -12V
 GREEN V_{out}