



Sandhurst Instruments Ltd



Depth Transmitters & Transducers

Models:



FEATURES

- LH176 & LH178 Have removable/replaceable transducer and electronic module offering 10:1 turndown, zero and span controls and lightning suppression.
- LH171 & LH173 Have a fixed range only
- -LP Low Power, units operate over the voltage range 8-20Vdc
- -LR Low Range, units available over the range 0-200mmwg to 0-2mmwg
- -RS Reverse Scale, provides an output of 20-4mA (Fixed Range)

OPERATION

- Loop Powered 15-36Vdc or 8-20Vdc
- Current Output 4-20mA two wire
- Voltage Output 5 Vdc i/p 0-5 Vdc o/p
- 12 Vdc i/p 0-5 Vdc or 1-5 Vdc o/p
- 24 Vdc i/p 0-5 Vdc or 1-5 Vdc o/p

Specifications

The Pressure measuring capsule is a piezoresistive temperature compensated silicon – stainless steel element with very low hysteresis, excellent long term stability and high resolution.

| Model No. | Transducers (4-Wire) | | | | Transmitters (2-Wire) | | | |
|--------------------------|---------------------------|---------|---------|----------|----------------------------|--------|--------|---------|
| | LH171-B | LH173-B | LH176-B | LH178-B | LH171 | LH173 | LH176 | LH178 |
| Min. Full Scale Range wg | 50m | 1m | 1m | 1m | 50m | 1m | 1m | 1m |
| Max. Full Scale Range wg | 350m | 200m | 200m | 200m | 350m | 200m | 200m | 200m |
| Over Pressure % | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| Burst Pressure % | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Input Current / Voltage | 1.5mA | 1.6mA | 1.6mA | 1.6mA | 15-36V | 15-36V | 15-36V | 15- 36V |
| Output in mV / mA | 10-100 | 15-100 | 15-100 | 15-100mV | 4-20mA | 4-20mA | 4-20mA | 4-20mA |
| NLH % FS | +/-0.15 | +/-0.1 | +/-0.1 | +/-0.1 | +/-0.15 | +/-0.1 | +/-0.1 | +/-0.1 |
| Temp Coeff –Zero % FRO/C | 0.05 | 0.02 | 0.02 | 0.02 | 0.05 | 0.02 | 0.02 | 0.02 |
| Temp Coef –Span % FRO/C | 0.05 | 0.02 | 0.02 | 0.02 | 0.05 | 0.02 | 0.02 | 0.02 |
| Lightning Suppression | No* | No* | No* | No* | No* | No* | Yes* | Yes* |
| 10:1 Turndown | No* | No* | No* | No* | No* | No* | Yes* | Yes* |
| Zero & Span | No* | No* | No* | No* | No* | No* | Yes* | Yes* |
| Dimensions | 17x205 | 30x160 | 30x220 | 25x220 | 17x205 | 30x160 | 30x220 | 25x220 |

- ➔ RT- 4 Provides the current drive for the four – wire transducers. It is a surface mounted Remote Transmitter, 24Vdc or 12Vdc, 4-20mA with 10:1 turndown, zero and span controls and lightning suppression

MATERIALS

- ➔ Diaphragm 316L ST.ST.
- ➔ Sensing Element Micro-Machined Silicon
- ➔ Body 303/304 ST.ST (316L and Duplex upon request)
- ➔ Nose cone & Cover Black Polyacetal
- ➔ `0` Rings Medium Nitrile – alternatives are available for acids
- ➔ Cable Outer Cover Polyurethane,
Inner Cores Polyethylene Insulated, supplied complete with Kevlar strain wire, vent tube and screen

CONNECTION

| 2 Wire | | 3 Wire | | 4 Wire | |
|-----------------|-------|-----------------|--------|-----------------|--------|
| + Supply | Red | + Supply | Red | + Supply | Red |
| - Supply | Blue | - Supply | Blue | - Supply | Blue |
| Earth | Green | Output | Yellow | +Signal | Green |
| | | Earth | Green | - Signal | Yellow |
| | | | | Earth | Green |