

3R 2.3V LEL Sensor

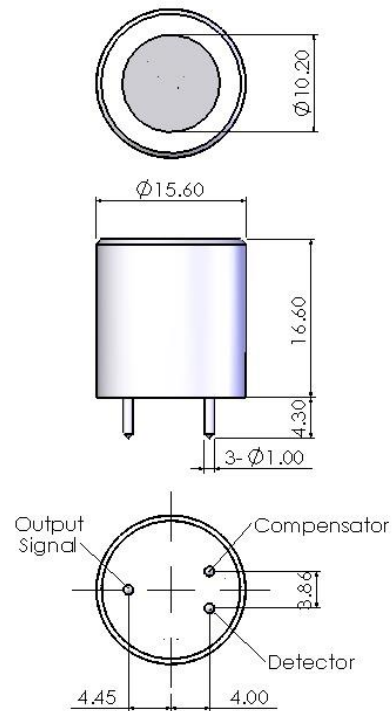


3R, 0 – 100%LEL Combustible Gas Sensor

Performance Characteristics

| | |
|-----------------------------|-----------------------------------|
| Part number | CLL-6112-300 |
| Gas Detected | Most combustible gases and vapors |
| Nominal Range | 0-100%LEL |
| Sensitivity Range | 22±8 mV/%CH ₄ |
| T90 Response Time | < 20 seconds (methane) |
| Linear to | 0-75%LEL |
| Long Term Sensitivity Drift | <±5% signal/month |
| Long Term Zero Drift | <±5%LEL _{methane} /month |
| Warranty Period | 12 months |

Outline Dimensions



All dimensions are in millimeters.
All tolerances are ±0.20mm.

Operation Conditions

| | |
|--------------------|---------------------------------------|
| Temperature Range | -20°C to 50°C |
| Operating Humidity | 15-90%RH non-condensing |
| Operating Voltage | 2.3V D.C. |
| Operating Current | 110±10 mA |
| Storage | no Si,Pb, Sn and S etc.vapors allowed |

Enhanced Features

- Excellent shock resistance
- Excellent high concentration flush resistance
- Excellent long term stability
- Excellent H₂S poison resistance
- Excellent HMDS poison resistance

Physical Characteristics

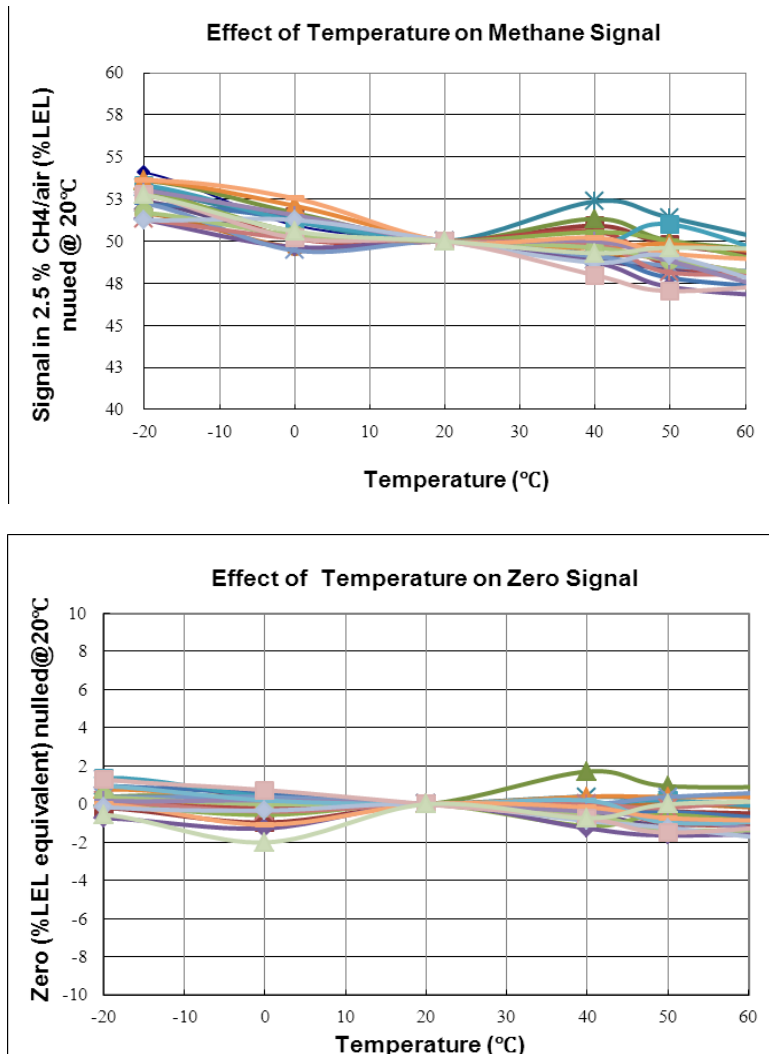
| | |
|-------------------------|---------------|
| Weight | 20 g (approx) |
| Orientation Sensitivity | None |

Relative Sensitivity

| Gas/Vapor | LEL (%vol) | Relative Sensitivity |
|--------------------|------------|----------------------|
| Methane | 5.0 | 100 |
| Propane | 2.1 | 56 |
| n-Butane | 1.9 | 63 |
| n-Pentane | 1.5 | 45 |
| n-Hexane | 1.1 | 31 |
| n-Octane | 1.0 | 26 |
| Gasoline(unleaded) | 1.3 | 36 |
| Hydrogen | 4.0 | 45 |
| Acetone | 2.5 | 34 |
| Ethanol | 3.3 | 36 |
| m-Xylene | 1.1 | 22 |
| Toluene | 1.1 | 29 |
| Benzene | 1.2 | 36 |

Note: Relative Sensitivities are listed for guidance only. Calibration must be made using the gas under investigation for most accurate consideration.

Temperature Dependence



Note: Temperature dependence data is supplied for guidance only.

Product Approval

- UL**
 Class I, Division I, Groups A, B, C&D Hazardous Locations
 Certificate No: E187829
- ATEX(94/9/EC)**
 II 2G Ex d IIC
 Certificate No: DEMKO 03 ATEX 0311958U
 Certificate No: 03 ATEX 0311958U
- IECEX**
 Ex d IIC
 Certificate No: IECEX UL 07.0001U

Notes:

- All performance specifications are based upon the following environment conditions: 20 °C, 50% relative humidity and 1 atmospheric pressure (100 kPa or ambient pressure).
- Recommend calibration with target gas. If calibration with a cross sensitivity gas, we cannot ensure the accuracy of calibration and measurement.
- The cross sensitivity may fluctuate between +/- 30% and may differ from batch to batch or from sensor's life time.
- The cross sensitivities are including but not limited to the above gases. It may also respond to other gases.