



## Product Data Sheet

LEL SENSOR 0~4% CH<sub>4</sub>-H (4-SERIES) (P/N:090-H000-000)

### Description

The sensor is designed specifically for the measurement of methane concentration in gas phase. It can be used as the pin-to-pin replacement of the standard 4-series LEL sensors.

### Performance Characteristics

Nominal Range: 0~4% CH<sub>4</sub>

Maximum Overload: 4% CH<sub>4</sub>

Sensitivity (20°C) : > 20 mV/%CH<sub>4</sub>

Response Time (T90): < 10 s

Starting Value: ≤ 0.8% CH<sub>4</sub>

Linearity: good linearity

Recommended Voltage : 2.0 VDC

### Environmental

Temperature Range: 0°C ~ 40°C

Pressure Range: 86 ~ 116 kpa

Humidity Range: ≤98% (25°C)

Wind speed: ≤8 m/s

H<sub>2</sub>S Content: ≤6 ppm

### Life Time

Recommended Storage Temp: -20°C ~ 40°C

Expected Operating Life: ≥ 3 years

Warranty: 12 months

Flooding (40% CH<sub>4</sub>): < ± 20% (stay in 40% CH<sub>4</sub> for 10s, then in clear air for 20 min)

### Intrinsic Safety Data

Ui 2.0V, Ii ≤ 120 mA

Ui 2.5V, Ii ≤ 105 mA

Ui 2.8V, Ii ≤ 95 mA

Ui 3.0V, Ii ≤ 120 mA

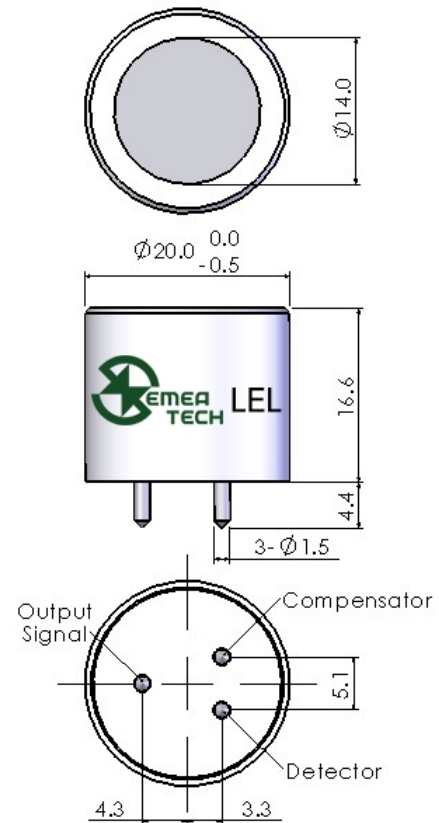
### Basic Error

Measurement Range% CH <sub>4</sub>		0~1	>1~2	>2~4
Error	Absolute Error% CH <sub>4</sub>	±0.06		
	Relative Error%		±6	±7

### Installation

Inappropriate use of the pins in product design will affect the sensor functionality. If the sensor is used in extreme environmental conditions, please contact us if you need more details.

### Product Dimensions



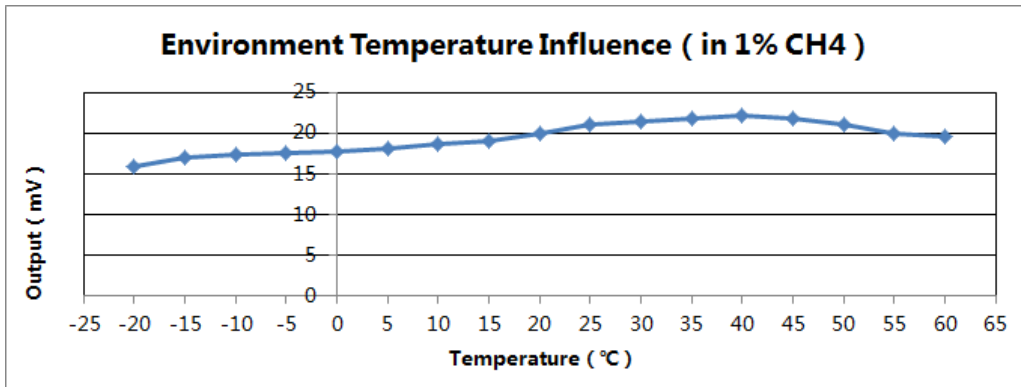
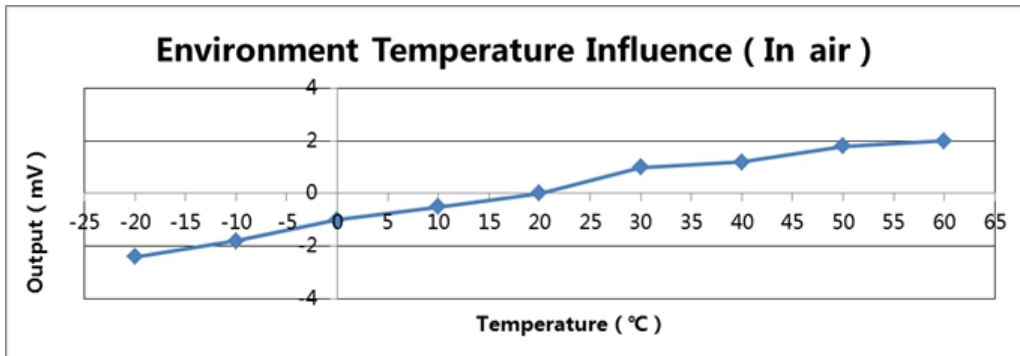
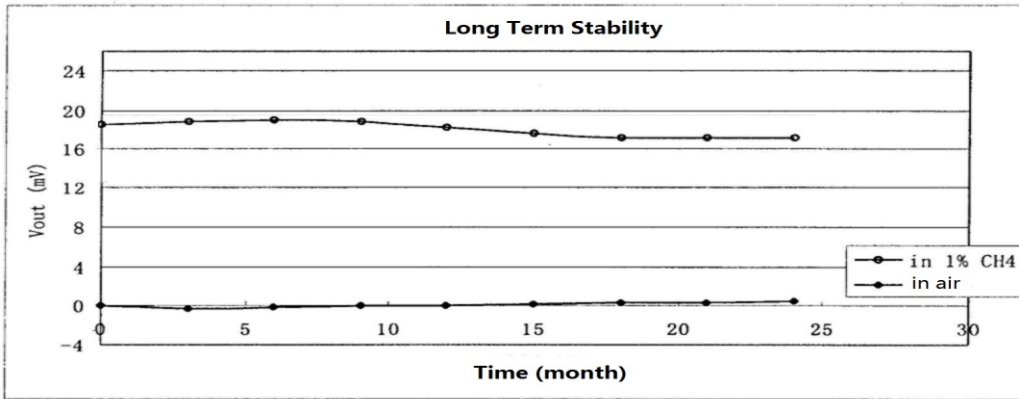
All dimensions in mm

All tolerances ±0.10 mm unless otherwise stated

### Physical Characteristics

Housing Material: 316L stainless steel

### • Long Term Stability & Temperature Data



### • Safety Note

The sensor is designed to be used in certain instruments for life critical applications. To ensure the sensor functioning per its specifications inside the instrument, it is required to read the instrument user's guide carefully and comply with the calibration procedures by using certified target calibration gas before each use. Failure to do so may cause serious injury and fatality.

It is highly recommended for customers to validate the sensor performance using this document as a reference for their product designs or applications.

This product data sheet is used for reference only.  
SemeaTech is committed to provide its customers the most accurate data based on its best knowledge.  
SemeaTech does not provide product warranty for failure to use its product in accordance with product specifications described in the datasheet, or other misuse, abuse, negligence to the product.

