Product Data Sheet

LEL SENSOR 0-100% LEL (4 SERIES) (PN: 090-R000-000)

• Description

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

• Performance Characteristics

Nominal Range:	0 ~ 100% LEL
Maximum Overload:	100% LEL
Sensitivity (20°C):	22 ± 7 mV/%CH4
Response Time (T90):	< 30 s
Resolution:	1% LEL
Linearity:	%FSS ± 5%
Recommended Voltage:	3.00 ± 0.02 VDC
Operating Current:	95 ± 15 mA
Humidity Drift:	< 1% LEL @ 90%RH (25°C)
Temperature Drift:	< 3% LEL (-20°C ~ 50°C)
Baseline (mV):	< ±20 mV

• Environmental

Temperature Range:	-30°C ~ 50°C
Pressure Range:	1 ± 0.2 atm
Humidity Range:	0% ~ 90%RH non-condensing

• Life Time

Long Term Baseline Drift:	< 3% LEL/month
Long Term Sensitivity Drift:	< 3.5% output signal/month
20% Sensitivity Drift	@ 1000 ppm H2S for 2.5h
40% Sensitivity Drift	@ 1000 ppm HMDS for 2.5h
Recommended Storage Temp:	-20°C ~ 40°C
Expected Operating Life:	> 2 years in clean air
Warranty:	12 months

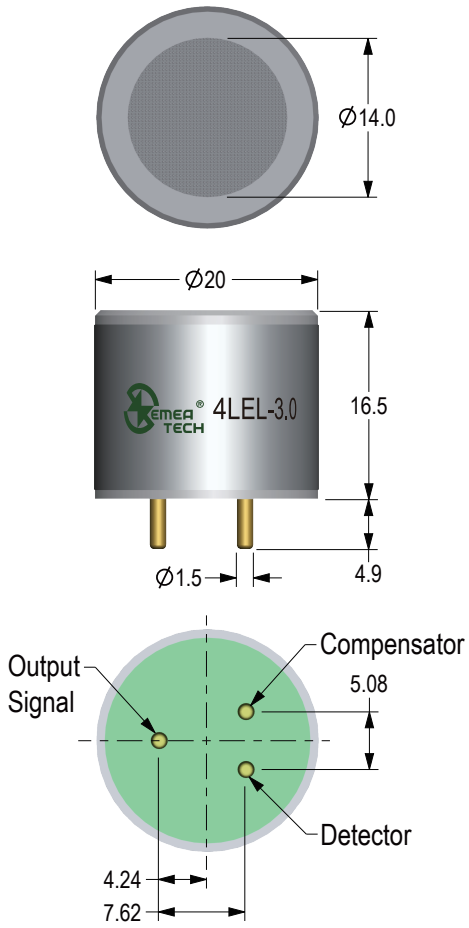
• Physical Characteristics

Housing Material:	316L stainless steel
Weight (Nominal):	24 g
Orientation:	None

• 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 for more details.

• Product Dimensions



All dimensions in mm
All tolerances ±0.20mm unless otherwise stated

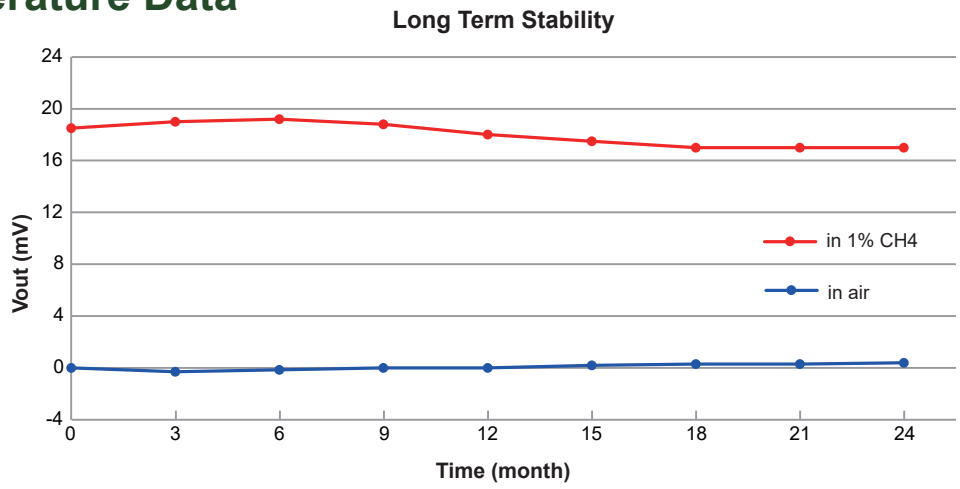
• Note

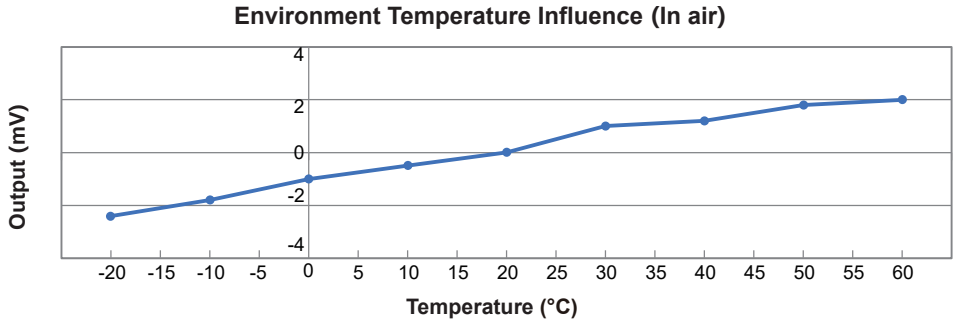
The performance data in this document are conducted by using SemeaTech recommended test circuitry and test environment at 20°C, 50%RH and 1 atm. Sensor performance varies under different environmental conditions. Please contact us if you need more details.

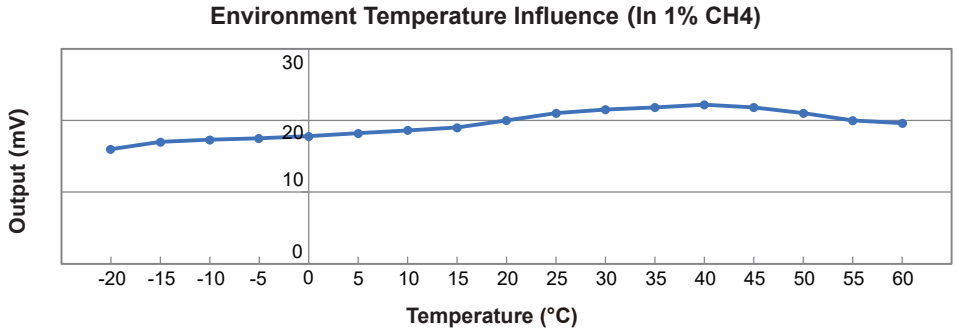
Website: www.semeatech.com
E-mail: info_us@semeatech.com

REV.: 2024/03

• Temperature Data







• Safety Note

This sensor is designed to be used in certain instruments for life critical applications. To ensure the sensor functions 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. Please do not open the sensor plastic enclosure because the electrolyte and other chemicals stored inside are harmful.

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 providing its customers the most accurate data based on its best knowledge. SemeaTech does not provide a product warranty for failures of using its products in accordance with product specifications that are described in the datasheet, or other misuses, abuse, negligence to the product.