**Product Data Sheet**

**LEL SENSOR 0~4% CH₄-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% CH₄
  - Maximum Overload: 4% CH₄
  - Sensitivity (20°C): > 20 mV/%CH₄
  - Response Time (T90): < 10 s
  - Starting Value: ≤ 0.8% CH₄
  - 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
  - H₂S Content: ≤6 ppm

- **Life Time**
  - Recommended Storage Temp: -20°C ~ 40°C
  - Expected Operating Life: ≥ 3 years
  - Warranty: 12 months
  - Flooding (40% CH₄): < ±20% (stay in 40% CH₄ 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**
<table>
<thead>
<tr>
<th>Measurement Range% CH₄</th>
<th>0~1</th>
<th>&gt;1~2</th>
<th>&gt;2~4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
<td>Absolute Error% CH₄</td>
<td>±0.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relative Error%</td>
<td>±6</td>
<td>±7</td>
</tr>
</tbody>
</table>

- **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. EmeaTech is committed to provide its customers the most accurate data based on its best knowledge. EmeaTech 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.