**Application Area**

The LSG is well-suited for a wide variety of continuous level measurement in liquids and bulk solids. Typical applications are the measurement of liquids in vessels, reactors, or sumps. The most common industries for the LSG include:

- Chemical
- Refining
- Upstream Oil and Gas

**Advantages**

Recognizable benefits of the LSG include:

- Highly sensitive detector minimizes radioactive source activity
- Electronics permit a wide variety of setup and compensation options
- Adjustable mounting system simplifies installation

**Function**

The detector uses a highly-sensitive scintillator rod inside a stainless steel housing. This rod produces photons when exposed to gamma radiation. The number of photons produced represents the intensity of radiation striking the detector. A photomultiplier tube converts the scintillator's photon signal to an electrical signal. A gamma source is installed on the vessel opposite the detector. Level changes expose varying lengths of the scintillator to radiation. The detector's microprocessor-based transmitter produces a 4 ... 20 mA HART output proportional to vessel level when properly adjusted.

**Technical Data**

<table>
<thead>
<tr>
<th>System Accuracy</th>
<th>Typically +/- 1% of span</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Requirements</td>
<td></td>
</tr>
<tr>
<td>- AC Non-heated</td>
<td>90 ... 250 VAC, 50 ... 60Hz, 15 VA</td>
</tr>
<tr>
<td>- AC Heated</td>
<td>115 or 2230 VAC, 50 ... 60 Hz, 25 VA</td>
</tr>
<tr>
<td>- DC Non-heated</td>
<td>20 ... 60 VDC (&lt; 100 mV, 1 ... 1000Hz ripple), 15 VA</td>
</tr>
<tr>
<td>- DC Heated</td>
<td>24 VDC +/- 10%, 25 VA</td>
</tr>
<tr>
<td>- Wire Size</td>
<td>1.63 ... 0.64 mm (14 ... 22 AWG) per local electrical code</td>
</tr>
</tbody>
</table>

**Ambient Conditions**

- Temperature: -20 ... +50 °C (-4 ... 122 °F)
- Humidity: 0-95%, non-condensing
- Vibration: Tested to IEC 68-2-6, IEC 68-2-27, and IEC 68-2-36

**Relay Output**

- User Configurable: Diagnostic, Process high/low alarm, X-Ray Interference
- Rating: 6A at 240 VAC, or 6A at 24 VDC (SPDT Form C), or ¼ HP at 120 VAC

**Auxiliary Inputs**

- Standard: Frequency input (0 to 100kHz)
- Optional: RS-485

**Weight**

10.98 kg + 0.0065 kg x length in mm (24 lbs. + 0.362 lbs. x length in inches)

**Materials**

<table>
<thead>
<tr>
<th>Electronics Housing</th>
<th>Cast Aluminum ASTM A357</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Coating</td>
<td>Polyester powder coating (Standard) or PVC coating</td>
</tr>
<tr>
<td>Sensor</td>
<td>Polyvinyltoluene</td>
</tr>
<tr>
<td>Sensor Conduit</td>
<td>304 Stainless Steel</td>
</tr>
</tbody>
</table>

**Housing Versions**

The housing carries a NEMA 4X (IP 66) rating and features two ¾” NPT conduit entries. Options for ½” NPT or M20 conduit entry adapters are available.

**Electronic Versions**

The standard electronic version available for the LSG is 4 ... 20 mA HART. Optional electronic versions include frequency output and RS485 for inter-gauge communication.
**Specifications Sheet**

**Dimensions**

- **External Ground Terminal**
- **Use 8 mm (5/16") Mounting Hardware (2 places)**
- **3/4" NPT (2 places)**
- **Clearance for Servicing 10.0" preferred, 6.0" minimum**
- **Active Length 152 to 3084 mm (6" to 120")**
- **471 ± 25 mm Active Length, (18.56" ± 1" + Active Length)**
- **14 mm (0.56") (4 places)**

**Information**

You can find additional information about VEGA product offerings from our home page, www.vega-americas.com. Brochures, operating instructions, quick reference guides, specification sheets, and drawings are also available from the Downloads section of our homepage.

**Device Selection**

The Downloads section of our home page, www.vega-americas.com provides application data sheets so you can select the measuring principle or product for your particular application.

**Contact**

Please call 1-513-272-0131, Monday through Friday, 8:00 A.M.-5:00 P.M., EST (Eastern Standard Time) if you have any questions. For emergencies after hours, call the number above and follow the voice mail instructions.

All information is subject to change without notice.