**Description and Application**

The KMC SLE-1001 FirstWatch Monitor detects problems with critical refrigerant conditions long before visual observation can spot trouble. When mounted on an approved sight-glass window, this easy-to-install, non-invasive optical sensor detects moisture content and flash gas content (bubbles of non-condensed refrigerant).

Combining an SLE-1001 with a KMC building automation system provides the capability to:

- Remotely monitor systems in difficult to reach locations.
- Record the actual condition of the refrigerant.
- Initiate alarms to alert personnel to possible trouble areas.

The SLE-1001 is designed for use with Sporlan Valve Company’s See•All Combination Moisture and Liquid Indicators or equivalent. FirstWatch is an ideal way to monitor critical areas that do not meet ANSI/ASHRAE Standard 15-1994.

**Environmental Protection Agency**

Electronic Technology Verified information on the performance characteristics of FirstWatch Monitor technology can be found at [www.epa.gov/etv](http://www.epa.gov/etv) or on the SLE-1001 product page of the KMC Controls web site. (Use of the ETV® name or logo does not imply approval or certification of this product nor does it make any explicit or implied warranties or guarantees as to product performance.)

**Accessories**

- **IEI-1110**
  - RAM-1, Refrigerant Alarm Monitor
- **Power transformer**
  - XEE-6111-40, single-hub 120 volt transformer
  - XEE-6112-40, dual-hub 120 volt transformer
- **SLE-1101**
  - Refrigeration Alarm Monitoring Kit (includes SLE-1001, IEI-1110, and 40 VA transformer)

**Approved Sight Glass Windows**

The SLE-1001 is approved for use with the following models of the Sporlan Valve Company’s See•All® sight glass:

- SA-14S, SA-14SU, SA-14UU
- SA-15S, SA-15SU, SA-15UU
- SA-17S
- SA-19S

**Requires adaptor ring (supplied with SLE-1001)**

- SA-12S
- SA-13S, SA-13SU, SA-13UU
**Dimensions**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0 in.</td>
<td>2.5 in.</td>
<td>1.06 in.</td>
<td>1.5 in.</td>
</tr>
<tr>
<td>7.62 cm</td>
<td>6.53 cm</td>
<td>2.67 cm</td>
<td>3.81 cm</td>
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</tbody>
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**Specifications**

**Output Signal**
- **Flash gas**: 0–5 VDC, 100K ohm load impedance
- **Moisture**: 0–5 VDC, 100K ohm load impedance

**Indicators**
- **Flash gas**: Flashing red LED (flashing rate is proportional to concentration of bubbles)
- **Moisture**: Yellow LED (brightness is proportional to presence of moisture)

**Connections**: 10 foot, four-conductor, 22 AWG cable

**Power Supply**: 24 VAC (+20, –15%), 1.5 VA, 50–60 Hz

**Approvals**: CE Compliant

**Environmental Limits**
- **Operating**: –20 to 140°F (–29 to 60°C)
- **Shipping**: –40 to 140°F (–40 to 60°C)
- **Humidity**: 0 to 95% RH (non-condensing)