INSTRUCTION SHEET
Surface Mount Indicator
LH1D-D3 Series

Confirm that the delivered product is what you have ordered. Read this instruction sheet to make sure of correct operation. Make sure that the instruction sheet is kept by the end user.

Safety Precautions
In this operation instruction sheet, safety precautions are categorized in order of importance to Warning and Caution.

WARNING
WARNING notices are used to emphasize that improper operation may cause severe personal injury or death.

CAUTION
Caution notices are used where inattention might cause personal injury or damage to equipment.

WARNING
- Before applying the LH1D-D3 indicator, read the instruction sheet carefully, and ensure that the equipment conforms to the requirements of the LH1D-D3 specifications.
- Before designing the final equipment and powering up the LH1D-D3 indicator, confirm the specifications described on this sheet.

If there is any uncertainty in the description, contact IDEC before powering up the LH1D-D3 indicator.

- Do not disassemble, repair, or modify the LH1D-D3 indicator, otherwise severe accidents may result, such as electric shocks, damage, fire, or malfunction.
- Turn off the power to the LH1D-D3 indicator before wiring. Make sure of correct wiring, otherwise electric shocks or damage may result.
- Make sure that the LH1D-D3 indicator does not fall during transportation, installation, and operation, otherwise damage may occur.
- Do not pull or push on the cable of the LH1D-D3 indicator, otherwise damage may result. Give a slack to the cable white wiring.
- The LH1D-D3 indicator is a general-purpose and industrial electronic device. Do not use the LH1D-D3 indicator for electronic equipment which may damage a human body or threaten a life in case a malfunction or failure occurs.

CAUTION
- LED modules and indicator may vary in illumination colors and luminance.
- Apply a voltage within the rated value, otherwise the LED elements may be damaged.
- The LH1D-D3 indicator is vulnerable to static electricity. Take a sufficient measure for protection against static electricity and surge voltages.
- Do not apply an excessive force to the LH1D-D3 indicator. Do not leave a damaged LH1D-D3 indicator unattended or use a damaged LH1D-D3.
- Make sure of the correct operating temperature, which is the temperature around the LH1D-D3 indicator. Otherwise internal temperature rise may result in damage.
- Do not use or store the LH1D-D3 indicator in a place subjected to vibrations and shocks.
- Do not use the LH1D-D3 indicator in the following places:
  - Exposed to direct sunlight, near heaters, and at high temperatures
  - Subjected to chemicals, and corrosive gases
  - Basements, greenhouses, and other humid places

1 Types

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Connection</th>
<th>Illumination</th>
</tr>
</thead>
<tbody>
<tr>
<td>LH1D-D3H404001</td>
<td>Cable</td>
<td>One color</td>
</tr>
<tr>
<td>LH1D-D3H404002</td>
<td>Connector Connection</td>
<td>Two-color alternate</td>
</tr>
<tr>
<td>LH1D-D3H404003</td>
<td>Cable</td>
<td>Three-color alternate</td>
</tr>
<tr>
<td>LH1D-D3H404004</td>
<td>Connector Connection</td>
<td>One color</td>
</tr>
<tr>
<td>LH1D-D3H404005</td>
<td>Connector Connection</td>
<td>Two-color alternate</td>
</tr>
<tr>
<td>LH1D-D3H404006</td>
<td>Connector Connection</td>
<td>Three-color alternate</td>
</tr>
<tr>
<td>LH1D-D3H404007</td>
<td>Cable</td>
<td>Ten drops illumination color</td>
</tr>
</tbody>
</table>

2 Specification

<table>
<thead>
<tr>
<th>Rated Insulation Voltage (U)</th>
<th>32V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Voltage</td>
<td>Cable Connection: 24V AC/DC</td>
</tr>
<tr>
<td>Connector Connection: 24V DC</td>
<td></td>
</tr>
<tr>
<td>Operating Voltage Range</td>
<td>Cable Connection: 24V AC/DC ±10%</td>
</tr>
<tr>
<td>Connector Connection: 24V DC ±10%</td>
<td></td>
</tr>
<tr>
<td>Rated Current</td>
<td>1.7 mA</td>
</tr>
<tr>
<td>Maximum Current Draw</td>
<td>0.8W</td>
</tr>
</tbody>
</table>

Note: Use Class 2 power supply when using the LH1D as UL compliant product.
Use Class 3-II circuit when using the LH1D as ENEC compliant product.

3 Panel Mounting

Install the LH1D-D3 surface mount indicator using two M5 screws, one each on the top and the bottom.
Recommended tightening torque: 1.8 to 1.4 Nm

Note: Mounting screws are not supplied with the indicator and must be prepared by the user.
Choose the screws being the base thickness (10.5 mm) into consideration.
Note: Apply spring washer or Locite to prevent the screws from loosening.

4 Notes for installation

- For one-color illumination of cable connection type, the green wire is cut short because it is not used. When cutting the cable for shorter wiring, cut the green wire shorter or make sure that the green wire is not used.
- The pin layout of sensor connector for connector connection type is shown at the right.
- Excessive shock to the LH1D may cause damage or failure, and the internal lens might have come off even if no defects are found externally. The internal lens may have come off when:
- The illumination varies greatly depending on the orientation when viewed from the side.
- The indicator makes rattling sound when shaken slightly.
- When any of these phenomena is observed, contact IDEC.
Note: Do not remove the lens.

5 Dimensions

6 Internal Circuit

- One-color illumination
  - Cable: White / Connector: Pin No. 4
  - Connector: Pin No. 1
- Two-color alternate illumination
  - Cable: White / Connector: Pin No. 4
  - Connector: Pin No. 1
- Three-color alternate illumination
  - Cable: White / Connector: Pin No. 4
  - Connector: Pin No. 1

7 Precautions for Disposal

- Dispose of the LH1D-D3 LED indicator as an industrial waste.

IDEA CORPORATION
http://www.idec.com
2014_31