PRECAUTIONS ON SAFETY

Meaning of Signal Words

*Indicates a potentially hazardous situation which, if not avoided, will result in minor or moderate injury or may result in serious injury or death. Additionally, there may be significant property damage.

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WARNING

The V780-HMD68-ETN-US can be used only in the United States and Canada.

The product must be professionally installed if it is installed in high location.

Always observe the following precautions to prevent operation failures, malfunctions, and adverse effects on the Reader/Writer.

1. Transportation

Always use the packing box that comes with the Reader/Writer when you transport it, and do not subject it to excessive vibration or shock.

2. Use

1. Use in accordance with the User’s Manual.
2. Do not install flammable or explosive gases, flammable liquids, flammable powders, or storage.
3. Location subject to extremes in temperature and humidity or ambient temperature and humidity range is exceeded.
4. Locations subject to excessive temperature changes that may affect the plastic parts and case coating.
5. The Reader/Writer must not be exposed to any water.

3. Installation

Install the Reader/Writer with four M6 bolts. Use both spring washers and flat washers. Recommended tightening torque: 4.3 N·m.

- **Front Mounting**
  - M6 bolt
  - Flat washer
  - Spring washer
  - 230+0.3 Four, M6 holes
  - Maximum depth to the Surface 5
  - Mounting Hole Diameter: 7.5±0.2
  - Mounting Hole Dimension: 80±0.2

- **Rear Mounting**
  - M6 bolt
  - Flat washer
  - Spring washer
  - 230+0.3 Four, M6 holes
  - Maximum depth to the Surface 5
  - Mounting Hole Diameter: 7.5±0.2
  - Mounting Hole Dimension: 80±0.2

4. Names and Functions of Operation Indicators

V780-HMD68-ETN-US

<table>
<thead>
<tr>
<th>Description</th>
<th>LED</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINK/ACT</td>
<td>Red</td>
<td>Flashing irregularly</td>
<td>The radio wave has not been established on the Ethernet port</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lit</td>
<td>When a radio wave is receiving &quot;on&quot; on the Ethernet port</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flashing when data is being transmitted or received on the Ethernet port</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lit if the Ethernet send signal is set to &quot;on&quot;</td>
<td></td>
</tr>
<tr>
<td>RF</td>
<td>Red</td>
<td>Flashing</td>
<td>Communication via the radio wave has not been established on the Ethernet port</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lit</td>
<td>A radio wave is present</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flashing</td>
<td>Data is being transmitted or received on the Ethernet port</td>
</tr>
</tbody>
</table>

5. Connecting and Disconnecting the Reader/Writer Power Cable and Ethernet Cable

**Connecting the Cable**

1. Hold onto the connector on the Power Cable and insert it into the Reader/Writer power connector.
2. Turn the connector on the Power Cable clockwise to lock it in place.
3. Hold onto the connector on the Ethernet Cable and insert it into the Reader/Writer Ethernet connector.
4. Turn the connector on the Ethernet Cable clockwise until you feel it securely lock in place.

**Disconnecting the Cable**

1. Hold onto the connector on the Power Cable and pull it straight out to remove it.
2. Hold onto the connector on the Ethernet Cable and pull it straight out to remove it.

6. Precautions for Connecting and Disconnecting the Reader/Writer Power Cable

- Do not pull the power cable forcibly.
- Do not pull the power cable while the Reader/Writer is operating.
- Do not pull the power cable while the Reader/Writer is cooling down.
- Do not pull the power cable while the Reader/Writer is in Safe Mode.
- Do not pull the power cable while the Reader/Writer is connected to the Ethernet cable.

7. Precautions for Connecting and Disconnecting the Reader/Writer Ethernet Cable

- Do not pull the Ethernet cable forcibly.
- Do not pull the Ethernet cable while the Reader/Writer is operating.
- Do not pull the Ethernet cable while the Reader/Writer is cooling down.
- Do not pull the Ethernet cable while the Reader/Writer is in Safe Mode.
- Do not pull the Ethernet cable while the Reader/Writer is connected to the Power Cable.

### Ratings and Performances

<table>
<thead>
<tr>
<th>Item</th>
<th>V780-HMD68-ETN-US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>24V DC±0.3</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-10°C to 50°C</td>
</tr>
<tr>
<td>Operating humidity</td>
<td>&lt;=90% with no condensation</td>
</tr>
<tr>
<td>Dimensions</td>
<td>250 × 250 × 70 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.5 kg</td>
</tr>
<tr>
<td>Power consumption</td>
<td>10 W max.</td>
</tr>
<tr>
<td>Safety class</td>
<td>SELV (Safety Extra Low Voltage)</td>
</tr>
<tr>
<td>Operating range</td>
<td>V780-HMD68-ETN-US</td>
</tr>
<tr>
<td>Tag Communications Specifications</td>
<td></td>
</tr>
<tr>
<td>Frequency Band</td>
<td>900 MHz to 930 MHz</td>
</tr>
<tr>
<td>Frequency Modulation</td>
<td>FSK</td>
</tr>
<tr>
<td>Operating Mode</td>
<td>(Standard Mode) or (Extended Mode)</td>
</tr>
<tr>
<td>Operating Method</td>
<td>Polling, Memory Read, Memory Write, Interrogation, PC control</td>
</tr>
<tr>
<td>Operating Distance</td>
<td>0.1 to 100 m</td>
</tr>
<tr>
<td>Communication Distance</td>
<td>0.1 to 100 m</td>
</tr>
<tr>
<td>Standard</td>
<td>ETSI 102 197-1 (1993) OMRON Communication Formats (OMCOM)</td>
</tr>
</tbody>
</table>
1. United States

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 30cm or more away from person's body.

**FCC CAUTION**

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

1. United States

Cet équipement est conforme aux limites d’exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d’exposition aux fréquences radioélectriques (RF) CNR-102 de l’ISDE. Cet équipement doit être installé et utilisé en gardant une distance de 30cm ou plus entre le radiateur et le corps humain.

2. Canada

Le présent appareil est conforme aux CNR d’ISDE applicables aux appareils radio exempts de licence.

L'appareil ne doit pas produire de brouillage;

L’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

La Commission fédérale des communications (FCC) des États-Unis a défini des limites en vue d’éviter tout brouillage radioélectrique dangereux. Les utilisateurs de cet appareil devraient veiller à installer et utiliser cet appareil conformément aux directives ci-dessous.

- Cet appareil ne doit pas produire de brouillage;
- Cet appareil doit accepter tout brouillage radioélectrique, y compris celui qui pourrait nuire à son fonctionnement.

Les utilisateurs de cet appareil doivent s'assurer de rester dans le périmètre des distances minimales indiquées.

Le terme “M6 bolt” dans le document semble être une erreur orthographique. Il n'est pas clairement déterminé dans le contexte de l'utilisation appropriée ou de la spécification. Il est suggéré de vérifier les spécifications ou les diagrammes pour obtenir des informations plus précises.