**Far Infrared Ceramic Plate Heaters / Far Infrared Plate Heaters**

**Mounting Hole Machining Dimensions**
- Mounting Hole Machining Dimensions
- Temperature unevenness will be smaller compared to combining conventional ceramic plate heaters.

**Features**
- Heat Insulating Highly-effcient Type with Built-in Temperature Sensor
- Heat Insulating Highly-effcient Type
- Lightweight, clean with no particle generation, and excels in thermal response.
- There is little deterioration with time and remain highly-effcient for a long time.
- The far infrared ray uniformly heats the surface and interior of the object.
- MISUMI's ceramic plate heaters are highly-effcient far infrared heaters.

**Type No. MCHN MCHNN MCHNNS**
- Material: Ceramic
- Part Number: A B C (a) (b) (c) W
- (2) Put heater lead wires through the mounting hole, (3) Mount the heater power supply wires of and drill a hole for heater power supply wires of.

<table>
<thead>
<tr>
<th>Type</th>
<th>Material</th>
<th>Load Area</th>
<th>Base Area</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCHN</td>
<td>Ceramic</td>
<td>150x150</td>
<td>200x200</td>
<td>±0.1</td>
</tr>
<tr>
<td>MCHNN</td>
<td>Ceramic</td>
<td>150x150</td>
<td>200x200</td>
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</tr>
</tbody>
</table>

**Temperature Rise Characteristics of Far Infrared Ceramic Plate Heaters and Plate Heaters**
- Temperature at 25°C in natural atmosphere
- Temperature controller (liquid expansion type). It is lightweight, and can be installed and removed by a single person.

**Drum Heater**
- Economical Type

<table>
<thead>
<tr>
<th>Part Number</th>
<th>W (Electrical Power)</th>
<th>(Voltage)</th>
<th>Mass (kg)</th>
<th>Attaching Object</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDRHL</td>
<td>2000</td>
<td>200</td>
<td>5.0</td>
<td>Drums (200ℓ)</td>
<td>27,300</td>
</tr>
<tr>
<td></td>
<td>700</td>
<td>220</td>
<td>3.0</td>
<td>18 ℓ Metal Cans</td>
<td>21,010</td>
</tr>
</tbody>
</table>

**Features**
- Drum Heaters are the silicon rubber heaters for drums, pails and 18 liter metal cans. Liquid viscosity and the temperature can be properly controlled by the equipped temperature controller (liquid expansion type).
- It is lightweight, and can be installed and removed by a single person.
- Available for material preheating, viscosity control for high viscosity fluid and freeze prevention for liquid.

**Precautions for Use**
1. Do not use in a flammable atmosphere.
2. Install the heater below the fluid level. (Installation at the bottom of the drum is recommended.)
3. To avoid burn injury, do not touch the heater when the power supply is on or immediately after the use.
4. Do not use in places with rain fall.
5. Standardized thermostat (30°C – 110°C) and thermal fuse (154°C) prevents unexpected accidents.

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**Drum Heater Temperature Change**

**Mounting Method (Far Infrared Plate Heaters)**
- Choose the location of mounting the heater, and drill a hole for M6... (Drills the exit for the heater power supply wires of and drill a hole if necessary.)