Application:
The ISIMET Kitchen Hood Controller is designed to provide an interlock between the cooking equipment and ventilation systems in commercial kitchens. The standard controller can be configured to meet code requirements for all states and offers a variety of inputs and outputs to operate additional accessories. It is designed to constantly monitor sensors to ensure that the connected equipment is working properly. If equipment failure occurs, the controller will automatically shut down or activate services to address each type of failure.

Note: The Kitchen Hood Controller must be used in conjunction with ISIMET LA Independent Wall Panel.

UL Listing:
Product is in compliance with the Industrial Control Panels, UL-508A Standard.

Enclosure Specifications and Dimensions:
The 18x18x4 NEMA 1 enclosure with hinged lockable door may be either surface or flush mounted. These units are not intended for direct exposure to wet conditions.
The enclosure is available in Gray Powder Coat with White Powder Coat Door, Gray Powder Coat with Brushed Stainless Steel Door, Gray Powder Coat with Gray Powder Coat Door and Stainless Steel with Brushed Stainless Steel Door.

Electrical:
120V-15A Circuit Supply Voltage Required. Protection is provided by an Internal 5A Circuit Breaker Switch.
*All Service outputs are designed only to operate 24 Volt relays.
## Standard Inputs and Outputs

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Panic</td>
<td>Allows a remote “Panic” mushroom button to shut down the system in an emergency.</td>
</tr>
<tr>
<td>Fire Alarm</td>
<td>Allows the controller to be integrated to the building’s Fire Alarm System.</td>
</tr>
<tr>
<td>Building Management</td>
<td>Allows the controller to be integrated to the Building Management System.</td>
</tr>
<tr>
<td>ANSUL</td>
<td>Allows the controller to be integrated with an ANSUL Fire Suppression System.</td>
</tr>
<tr>
<td>CO Sensor</td>
<td>Allows the CO sensor to notify that high carbon monoxide levels have been detected.</td>
</tr>
<tr>
<td>Fuel Gas Sensor</td>
<td>Allows the Fuel Gas Sensor to notify that raw gas has been detected.</td>
</tr>
<tr>
<td>Temperature #1</td>
<td>Notifies the controller that a predetermined temperature has been met.</td>
</tr>
<tr>
<td>Temperature #2</td>
<td>Notifies the controller that a predetermined temperature has been met.</td>
</tr>
<tr>
<td>Exhaust Fan Flow</td>
<td>Notifies the controller that the Exhaust Fan is operating properly.</td>
</tr>
<tr>
<td>Make-Up Air Flow</td>
<td>Notifies the controller that the Make-Up Air Fan is operating properly.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Gas Solenoid</td>
<td>Provides a signal to operate the Fuel Gas Supply Solenoid</td>
</tr>
<tr>
<td>Pilot Solenoid</td>
<td>Provides a signal to operate the Pilot Supply Solenoid. (Used only if allowed by code)</td>
</tr>
<tr>
<td>Hood Lighting</td>
<td>Provides a signal to operate the hood mounted lighting.</td>
</tr>
<tr>
<td>Exhaust Fan</td>
<td>Provides a signal to operate the Exhaust Fan.</td>
</tr>
<tr>
<td>Make-Up Air Fan</td>
<td>Provides a signal to operate the Make-Up Air Fan.</td>
</tr>
<tr>
<td>Electrical Contactor</td>
<td>Provides a signal to operate an Electrical Contactor for service outlets or other equipment.</td>
</tr>
<tr>
<td>Beacon Monitoring</td>
<td>Permits the controller to be monitored by a beacon and/or sounder in cases of emergency.</td>
</tr>
<tr>
<td>Fire Alarm</td>
<td>Provides a notification signal to the Fire Alarm System and ANSUL Fire Suppression System when there is an emergency situation.</td>
</tr>
</tbody>
</table>

*Outputs can be programmed to meet each customer’s specific needs.

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**KITCHEN HOOD CONTROLLER HUB**

**MODEL NUMBER DESCRIPTION**

```
KHC - 1 1 1 6
```

**Enclosure Series**
- 1 - White Powder Coat
- 2 - Brushed Stainless Steel
- 3 - Gray Powder Coat
- 4 - Gray Powder Coat W/ Stainless Steel Door

**Mounting Style**
- 1 - Surface Mount
- 2 - Flush Mount

**Integrated Systems**
- 0 - No Temperature Sensor Monitoring
- 1 - Temperature Sensor Monitoring

**Output Configuration**
- 2 - 6 Output Circuits + Alarm & Monitoring (Standard)
- Custom assemblies available up to 20 circuits
- Max Output per Circuit is factory determined based on the application criteria otherwise 150 mA @ 24 VDC per Circuit

**ISIMET Equipment**

A – Kitchen Hood Controller Hub  
*ISIMET* P/N – KHC 111X

B – Independent Wall Panel  
*ISIMET* P/N – LAIP-621X

C – CO Sensor  
*ISIMET* or Equivalent

D – Fuel Gas Sensor  
*ISIMET* P/N – FGS-1211

E – Fuel Gas Solenoid – N/C  
*ISIMET* P/N – S-30X-120 Volt

F – Air-Flow Proving Switch  
*ISIMET* P/N - IPS

G – Relay Enclosure  
*ISIMET* P/N – IRE/XS

H – Remote Emergency Pushbutton  
*ISIMET* P/N – IP-O

I – Temperature Sensor Probe  
(Included in models with Temperature Sensor Monitoring)

**Non-ISIMET Equipment**

1 – Fire Suppression System Controller

2 – Fusible Link Suppression System Detector

3 – Suppression System Discharge Nozzle

4 – Commercial Kitchen Hood

5 – Gas Fired Equipment

6 – Manual Reset Gas Solenoid