CONVENTIONAL FIRE ALARM CONTROL PANEL  2PD1-5L

■ Features
- Alarm delay function
  - Heat Detector : 20 sec.
  - Smoke Detector : 60 sec.
- Alarm delay ON/OFF switch function
- Supervision of detector lines and fault conditions
- Energy saving technology for its running cost
- Extra slim design
- Light body using flame retardant ACS resin
- High reliability minimizes maintenance cost
- Equipped with surge absorbers
- Re-sounding system
- 1 output for zone alarm bells
- 1 output for signal transfer to external facility
- Easy wiring by Push-in terminals’ one-touch connection

■ Description
The 2PD1-5L is a conventional fire alarm panel with a stylish wall-mount design supplied in 5 zone format. All detector circuits will be indicated with lighting red LEDs in alarm conditions and flushing in open circuit fault conditions. Slide-in paper labels are included for clear zone identification. The alarm panel has an alarm delay function on detector circuits to reduce false alarms, including a delay ON/OFF function.

2PD1-5L utilizes the latest modern technology to achieve a compact, sophisticated and highly reliable product. This panel is suitable for a wide range of environmental risks in industrial and commercial applications. E.g. Shops, offices, warehouses, guest houses, post-offices, mobile phone stations, etc.

2PD1-5L is provided with surge absorbers on the primary and secondary sides of the transformer to protect its circuit from the lightning and electrical-surge.

■ Remote Test Function
Remote test function is available on 2KW-P and 2KAD2-P detectors etc. with a dedicated testing device.

2KW-P
- Distinguishes steam and smoke
- Automatic sensitivity compensation
- Suited for Shower rooms and Kitchens

2KAD2-P
- Remote-test available
- Automatic sensitivity compensation
- Suited for Condominiums
### Indicators on Operation Panel

- **Zone Alarm Indicators**
  - Normal: Turn off
  - Fire: Turn on (Red)
  - Open Circuit: Flush (Red)

- **System Reset Switch**
  - Activation of this switch resets the panel condition

- **Alarm Transfer Stop Switch**
- **Fire Test Switch**

- **AC Power Source Indicator**
- **Circuit Voltage Indicator**
- **Switch Operation Indicator**
- **Alarm Delay Indicator**
- **Panel Buzzer Silence Switch**
  - Activation of this switch when a panel buzzer is sounding, turns off the buzzer sounding
- **Zone Alarm Silence Switch**
  - Activation of this switch makes zone alarms silence
- **Battery Test Switch**
- **Test Reset Switch**

### Functions

- **Alarm Delay ON/OFF switch**
  - This switch can make the alarm delay function ineffective for installation and maintenance work.

- **Surge absorbers**
  - Lightning surge protection devices are provided as standard to the primary and secondary sides of a transformer to protect semiconductor parts.

- **Push-in type terminals**
  - Push-in type terminals are employed to improve efficiency at installation.

- **Test Reset Switch**
  - To aid commissioning and assist routine maintenance works, an auto-resetting “one man walk test” is available with the activation of Test Reset switch.
### Dimensions

![Dimensions Diagram]

### Typical Wiring Diagram

**2PD1-5L Fire Alarm Control Panel**

<table>
<thead>
<tr>
<th>Component</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Detectors and Manual Alarm Stations</td>
<td>Input from Manual Alarm Stations</td>
</tr>
<tr>
<td></td>
<td>Fire Alarm Zones (24 VDC+)</td>
</tr>
<tr>
<td></td>
<td>Fire Alarm Common (-)</td>
</tr>
<tr>
<td>For Zone Alarm Bells</td>
<td>Zone Alarm Output (125mA@24VDC)</td>
</tr>
<tr>
<td>For Indication Lamps</td>
<td>Indication Lamp Power Source (300mA@25VAC)</td>
</tr>
<tr>
<td>For Annunciator</td>
<td>Annunciator Power Source (41.5mA@24VDC)</td>
</tr>
<tr>
<td></td>
<td>Fire Alarm Zone Indication (-)</td>
</tr>
<tr>
<td></td>
<td>Annunciator Buzzer Silence (-)</td>
</tr>
<tr>
<td>For Fire Alarm Signal Transfer</td>
<td>Alarm Transfer, Non-Voltage Contact (Works compulsorily, less than 1A@24VDC)</td>
</tr>
<tr>
<td></td>
<td>Alarm Transfer, Non-Voltage Contact (Stopping switch effective, less than 1A@24VDC)</td>
</tr>
<tr>
<td>For AC Power Source</td>
<td>Input (220 VAC)</td>
</tr>
<tr>
<td>For Earth Connection</td>
<td>220 VAC Excl. Power supply</td>
</tr>
</tbody>
</table>

*1: Max. number of smoke detectors is 20 pcs. per zone.  
*2: P = Manual Alarm Station  
*3: The CRE is a dedicated end-of-line device which comes with the 2PD1-5L fire alarm control panel.  
*4: Make sure to be used F-F' terminals when using Remote indication lamps.  
*5: Max. number of bells is 12 pcs. when using the motor bells rated at 10 mA, 24 VDC.  
*6: Max. number of indication lamps is 30 pcs. when using the indication lamps rated at 9 mA, 24 VDC/AC.  
*7: When using Annunciator, any Remote indication lamp with this wiring is not available.
## Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>2PD1-5L</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AC Power</strong></td>
<td>220 VAC ±10% 50/60 Hz</td>
</tr>
<tr>
<td><strong>Standby Battery</strong></td>
<td>24VDC / 0.225 Ah, Sealed Type Ni-Cd battery</td>
</tr>
<tr>
<td><strong>Nominal Delay Time</strong></td>
<td>60 sec. (For smoke detector: 60 sec. For heat detector: 20 sec.)</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>W 240 x H330 x D 70 mm</td>
</tr>
<tr>
<td><strong>LED Indicators</strong></td>
<td>Zone alarm, AC power, Circuit voltage, Switch operation, Alarm delay</td>
</tr>
<tr>
<td><strong>Functions</strong></td>
<td>Circuit voltage monitoring, Cable break monitoring</td>
</tr>
<tr>
<td><strong>External Line Resistance</strong></td>
<td>50 Ω and less</td>
</tr>
<tr>
<td><strong>End of Line Device</strong></td>
<td>CRE</td>
</tr>
<tr>
<td><strong>Panel Alarm Sounder</strong></td>
<td>Piezoelectric buzzer, automatic re-sounding type</td>
</tr>
<tr>
<td><strong>Fire Alarm Transfer</strong></td>
<td>Common Fire Alarm : F-F' (Normally-Open), Contact Capacity 1 A 24 VDC</td>
</tr>
<tr>
<td></td>
<td>Fire Alarm : GA-GB-GC (Form-C), Contact Capacity 1 A 24 VDC</td>
</tr>
<tr>
<td><strong>Output Current for Zone Alarm Bells</strong></td>
<td>125 mA @ 24 VDC (B-BC)</td>
</tr>
<tr>
<td><strong>Output Current for Indication Lamps</strong></td>
<td>25 VAC  300 mA (PL-PL')</td>
</tr>
<tr>
<td><strong>Number of Connectable Detectors</strong></td>
<td>Standard type Smoke detector: Max. 20 /zone, Heat detector: As required</td>
</tr>
<tr>
<td></td>
<td>Thermistor type Heat detector: Max. 24 /zone, Total 12 x zones</td>
</tr>
<tr>
<td><strong>Connectable Manual Alarm Station</strong></td>
<td>2ME1A  2MH1A</td>
</tr>
<tr>
<td><strong>Connectable Annunciator Panel</strong></td>
<td>Model PSH x 1 unit</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>0°C to +40°C</td>
</tr>
<tr>
<td><strong>Primary Materials</strong></td>
<td>Flame retardant resin</td>
</tr>
<tr>
<td><strong>Body Color</strong></td>
<td>JPMA Color Code A22-90B Semi-gloss (off-white)</td>
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</tbody>
</table>