Watlow’s New WATCONNECT® SERIES C1 Control Panel is Quickly Configured for 1 or 2 Loops

Watlow’s WATCONNECT® SERIES C1 is a new extension to the WATCONNECT standard control panel family. It is a simple to order, simple to setup, single-phase standard control panel that is quickly configured for 1 or 2 loops and delivered within two weeks. WATCONNECT control panels integrate Watlow’s high-quality temperature controller and power controller products for a complete thermal solution.

Watlow® customers will be impressed with the speed and ease of specifying, selecting, pricing, ordering and delivery. WATCONNECT standard control panels are flexible and scalable pre-engineered solutions intended to be used with resistive thermal loads.

Features and Benefits

Full documentation provided for all WATCONNECT control panels at the time of quotation
- Eliminates lengthy approval process and phone calls

WATCONNECT enclosure easily mounts to wall or frame
- Decreases installation time

Terminal block located inside the panel
- Provides easy access for input entries

Bottom power entries
- Allows for easy connections inside the panel

IP-20 finger-safe construction
- Decreases chance of electrical shock for service and maintenance personnel

Features and Benefits (con’t)

Fast acting fuses
- Protects sensitive solid state components from damaging currents

Carbon steel and fiberglass reinforced polyester enclosure materials available
- Offers economical solution for the user’s application

Supports a wide variety of sensor inputs including ASTM thermocouple Types J, K and T, 3 wire 100 ohm RTD and 4 to 20mA process input
- Provides the customer a variety of process signals to ensure compatibility with field equipment

Watlow process temperature controller coupled with the DIN-A-MITE® power switching device provides superior thermal performance through tight process temperature control
- Delivers full system solution for a variety of applications
WATCONNECT C1 SERIES Standard Control Panels Include:

- UL®/cUL® listed control panels for installation in indoor and non-hazardous locations
- Configurable for 1 or 2 thermal loops, 18 full load amps per loop
- 120/240V, single phase power
- FRP enclosure (single loop 4X option)
- Carbon steel (single or 2 loop Type 4)
- Wall or frame mount enclosures with hinged door, sized to accommodate bottom power entry
- Limited access and increased safety through the use of mechanical latches that secure the hinged door to the enclosure
- Fused branch circuit protection ensures protection of system load and panel components
- EZ-ZONE® PM6 process control with integrated high limit reduces complexity
- DIN-A-MITE® family of solid state SCR power switching devices with zero cross output firing and touch-safe terminals provide outstanding reliability
- Safety mechanical contactor(s) removes power to system load in the event of a high limit and/or safety situation
- Process controllers come pre-programmed for the configured options and operation, reducing overall set-up time

- Operator interface features:
  - Illuminated control power on/off switch (one per panel) for increased visibility of control status (status determination at a glance)
  - Illuminated heater enables (one for each control loop) increases visibility of heater power status (status determination at a glance)
  - Illuminated heater high temperature light
  - Main power disconnect (optional)

- Weight chart

<table>
<thead>
<tr>
<th>Weight Per Panel</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FRP single loop</td>
<td>24 lbs</td>
</tr>
<tr>
<td>Carbon steel single loop</td>
<td>38 lbs</td>
</tr>
<tr>
<td>Carbon steel two loop</td>
<td>42 lbs</td>
</tr>
</tbody>
</table>

Environment (Indoor applications only)

- Operating temperature: 0 to 104°F (-18 to 40°C)
- Storage temperature: -40 to 185°F (-40 to 85°C)
- Relative humidity: 0 to 90%, non-condensing

Agency Approvals

- Preconfigured and certified to UL®/cUL® certified/listed for non-hazardous locations
- Non-hazardous panels certified to one or more of the following:
  - Type 4, 4X and 1 (indoor use)
Dimensional Drawings

Single-Loop, FRP Enclosure (4X Option)

Note 1. Allowance for locking latch travel.

Note: Shown with optional main disconnect.

Single and Two-Loop Carbon Steel Enclosure (Two Loop Shown)

Note: Shown with optional main disconnect.
SERIES C1
Extra small, non-hazardous control panel

Standard Features

<table>
<thead>
<tr>
<th>SCCR</th>
<th>Process Controller Type</th>
<th>Control Mode</th>
<th>Hi Limit(s) per Loop/Zone</th>
<th>Operators</th>
<th>Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKAIC</td>
<td>EZ-ZONE PM6</td>
<td>PID</td>
<td>1</td>
<td>Std</td>
<td>Remote shutdown input +</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Std bus connection (to TBs)</td>
</tr>
</tbody>
</table>

Configurations

<table>
<thead>
<tr>
<th>Configurations</th>
<th>Total # of Control Loops or Zones</th>
<th>Total # of Branch Circuits in Panel</th>
<th>Full Load Amps/Branch Circuit</th>
<th># Phases Switched</th>
<th>Branch Load Connection(s)</th>
<th>Enclosure</th>
<th>Hi-Limit Type</th>
<th>Main Disconnect</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base 1</td>
<td>1</td>
<td>1</td>
<td>18</td>
<td>1</td>
<td>Power distribution block (7 connections/branch)</td>
<td>Carbon steel (Type 4/Type 1)</td>
<td>Integrated (with process controller)</td>
<td>None (on/off switch)</td>
<td>UL®/cUL® listed for non-hazardous environment</td>
</tr>
<tr>
<td>Base 2</td>
<td>1</td>
<td>2</td>
<td>18 (36 total amps)</td>
<td>1</td>
<td>Power distribution block (7 connections/branch)</td>
<td>Carbon steel (Type 4/Type 1)</td>
<td>Integrated (with process controller)</td>
<td>None (on/off switch)</td>
<td>UL®/cUL® listed for non-hazardous environment</td>
</tr>
<tr>
<td>Base 3</td>
<td>2</td>
<td>2</td>
<td>18 (36 total amps)</td>
<td>1</td>
<td>Power distribution block (7 connections/branch)</td>
<td>Carbon steel (Type 4/Type 1)</td>
<td>Integrated (with process controller)</td>
<td>None (on/off switch)</td>
<td>UL®/cUL® listed for non-hazardous environment</td>
</tr>
</tbody>
</table>

Voltage (must select one)
- 120V single phase (power + neutral + ground)
- 240V single phase (power + power + ground)

Process Sensor (must select one)
- K
- RTD
- J
- T
- 4-20mA

Limit Sensor (must select one)
- K
- RTD
- J
- T
- 4-20mA

Enclosure Option
FRP Type 4X (one branch circuit only)

Hi-Limit Option
Discrete (separate controller)

Disconnect Option
Main power disconnect switch with lock out/tag out handle (not fuse protected)

Certification Option
Future option

Communications Accessory Option
USB to Std Bus cord/convertor (cord in box)

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