The Love Series 2500 Temperature Control provides an impressive array of features in an economical 1/4 DIN package. Features include on-off, time proportioning, proportional, PI, PD, or full PID control, programmable from the front panel, or use Self-Tune PID. Input types are selectable from a variety of thermocouple types (J, K, T, E, N or L) or DIN, NIST or Ni RTD’s. Outputs include solid state relay, mechanical relay, 5 VDC (ideal for driving an external SSR) or isolated 4-20 mA proportional current. Programmable alarm can act as high or low or high/low guardband alarm.

A water and corrosion resistant front panel (NEMA 4X; IP 65), input fault timer, digital input filter, Self-Tune ramp to setpoint, four password protected security levels and °F or °C display selection are all standard. Entire electronics package is field replaceable without wiring changes thanks to removable front panel.

### SPECIFICATIONS

**Inputs:** Thermocouple or RTD.

**Input Impedance:** Thermocouple = 3 megohms minimum, RTD current = 200 µA maximum.

**Display:** Two-4 digit, 7 segment, 0.56" high LED. Resolution: 1 degree or 0.1 degree.

**Accuracy:** ±0.25% of span, ±1 degree.

**Supply Voltage:** 100-240 VAC nominal, ±10%, 50-400 Hz, single phase; 132-240 VDC nominal, ±10%.

**Power Consumption:** 5 VA maximum.

**Operating Temperature:** 14 to 131°F (-10 to 55°C).

**Memory Backup:** Non-volatile memory. No batteries required.

**Control Output Ratings:**

- **SSR:** 2.5A @ 240 VAC resistive at 77°F (25°C). De-rates to 1.25A @ 130°F (55°C).
- **Relay:** SPDT, 10 A @ 240 VAC resistive.
- **Switched Voltage (non-isolated):** 5 VDC @ 20 mA.
- **Proportional Isolated Current:** 0-20 mA, selectable, into 600 Ohms maximum.

**Control Action:** Selectable for reverse (usually heating) or direct (usually cooling).

**Ramp:** One ramp time adjustable from 0-100 hours.

**Isolation:** Relay and SSR outputs; 1500 VAC. 0-20 mA output; 500 VAC. 5 VDC output is not isolated.

**Weight:** 13 oz (369 g).

**Front Panel Rating:** NEMA 4X (IP65).

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### MODELS

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>ALARM</th>
<th>INPUT</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>25111</td>
<td>Yes</td>
<td>Thermocouple</td>
<td>SSR</td>
</tr>
<tr>
<td>25112</td>
<td>Yes</td>
<td>Thermocouple</td>
<td>5 VDC</td>
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<tr>
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<td>Thermocouple</td>
<td>Relay</td>
</tr>
<tr>
<td>25115</td>
<td>Yes</td>
<td>Thermocouple</td>
<td>4-20 mA</td>
</tr>
<tr>
<td>25125</td>
<td>Yes</td>
<td>RTD</td>
<td>4-20 mA</td>
</tr>
</tbody>
</table>

*When ordering a control to operate contactor or solenoid loads greater than 100 mA, select the SSR output instead of the Relay. If the Relay is selected, also order P/N A-600 R/C Snubber.*