CompactLogix™
1769sc-IT6I
6-Channel Isolated Thermocouple Input Module

The 1769sc-IT6I Input Module provides full channel-to-channel isolated Thermocouple or millivolt input capability for noisy environments, in one I/O module. The 1769sc-IT6I module can replace Thermocouple or Millivolt modules without compromising performance or price.

Reduce System Costs

- Six channels of thermocouple or millivolt input.
- Twelve input types.
- Measures millivolt inputs from peripheral sensors.
- Individually programmable input type, open circuit detection, and high and low alarms for each channel.
- Easy to configure using RSLogix programming software.
- Channel-selectable filtering for fastest analog update time and noise rejection.
- Automatic cold junction compensation included for thermocouples.
- Accuracy comparable with dedicated, non-isolated analog modules.

www.spectrumcontrols.com
## 1769sc-IT6I Specifications

<table>
<thead>
<tr>
<th>Input Types</th>
<th>6 TC, Millivolt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input Ranges</strong></td>
<td></td>
</tr>
<tr>
<td>Thermocouple</td>
<td>J, K, T, E, R, B, S, N, C, L</td>
</tr>
<tr>
<td>Voltage</td>
<td>±50 mV, ±100 mV</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>16 bits</td>
</tr>
<tr>
<td><strong>Advanced Features</strong></td>
<td>6 filter frequencies (individually selectable by channel)</td>
</tr>
<tr>
<td>**Update Times (sec) *</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.17Hz</td>
</tr>
<tr>
<td>4-Channel Sample Time (sec)</td>
<td>0.244</td>
</tr>
<tr>
<td>* with TC, update times may be longer</td>
<td></td>
</tr>
<tr>
<td><strong>Electrical Isolation</strong> (continuous)</td>
<td>125 VAC channel-to-channel isolation</td>
</tr>
<tr>
<td></td>
<td>125 VAC field-wiring-to-backplane</td>
</tr>
<tr>
<td></td>
<td>125 VAC field-wiring-to-chassis-ground</td>
</tr>
<tr>
<td><strong>Input Impedance</strong></td>
<td>&gt;1 Mohm; thermocouple, voltage</td>
</tr>
<tr>
<td><strong>Input Overvoltage Protection</strong></td>
<td>±35 VDC continuous</td>
</tr>
<tr>
<td><strong>Maximum Cable Impedance</strong></td>
<td>25 mA continuous</td>
</tr>
<tr>
<td><strong>Backplane Current Required</strong></td>
<td>150 mA at 5 V maximum, 35 mA at 24 V maximum</td>
</tr>
<tr>
<td><strong>Common Mode Rejection</strong></td>
<td>100 dB at 50/60 Hz</td>
</tr>
<tr>
<td><strong>Normal Mode Rejection</strong></td>
<td>65 dB at 50/60 Hz</td>
</tr>
<tr>
<td><strong>Environmental Conditions</strong></td>
<td></td>
</tr>
<tr>
<td>Operational Temperature</td>
<td>-0 °C - 60 °C (32 °F - 140 °F)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40 °C - 85 °C (-40 °F - 185 °F)</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>5% - 95% (non-condensing)</td>
</tr>
<tr>
<td><strong>Thermal Dissipation</strong></td>
<td>3.00 Watts, maximum</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>UL/cUL Listed ANSI ISA 12.12.01 (Class I, Div 2, Groups ABCD), CE</td>
</tr>
<tr>
<td><strong>Recommended Cable</strong></td>
<td>For TC inputs: shielded, twisted-pair TC extension wire; For mV inputs: Belden 8761 or equivalent</td>
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</tbody>
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