The 1769sc-IF8u Input Module provides full universal analog capability in one I/O module. The 1769sc-IF8u module can replace analog input, thermocouple, and RTD modules without compromising performance or price.

Reduce System Costs

- Eight channels of voltage, current, and thermocouple, or 4 channels RTD/resistance.
- 32 input types.
- Use any combination of input types at one time.
- Individually programmable for each channel.
- Easy to configure using ladder register settings or RSLogix programming software.
- Channel-selectable filtering for fastest analog update time and noise rejection.
- Cold junction compensation included for thermocouples.
- Accuracy comparable with dedicated analog modules.
- 3- or 4-wire support for RTDs.

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### Input Types
- 8 V, C, or TC, or 4 RTD/Res

### Input Ranges

<table>
<thead>
<tr>
<th>Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermocouple</td>
<td>J, K, T, B, E, R, S, N, C</td>
</tr>
<tr>
<td>RTD</td>
<td>PT385/3916, Ni618/672, NiFe518, Cu426</td>
</tr>
<tr>
<td>Resistance</td>
<td>0-150, 0-1000, 0-3000 ohms</td>
</tr>
<tr>
<td>Current</td>
<td>0-20 mA, 4-20 mA</td>
</tr>
<tr>
<td>Voltage</td>
<td>±50 mV, ±100 mV, 0-5 V, 1-5 V, 0-10 V, ±10 V</td>
</tr>
</tbody>
</table>

### Resolution
- 16 bits

### Advanced Features
- 5 filter frequencies (individually selectable by channel)

### Update Times (ms) *

<table>
<thead>
<tr>
<th>Update Rate</th>
<th>10 Hz</th>
<th>50 Hz</th>
<th>60 Hz</th>
<th>250 Hz</th>
<th>1000 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Time</td>
<td>2.44</td>
<td>0.53</td>
<td>0.45</td>
<td>0.15</td>
<td>0.07</td>
</tr>
</tbody>
</table>

* with TC, update times may be longer

### Electrical Isolation
- 10 VDC channel-to-channel isolation;
- 125 VAC field-wiring-to-backplane
- 125 VAC field-wiring-to-chassis-ground.

### Input Impedance
- >10 Mohm; thermocouple, voltage, RTD
- <250 ohm, current

### Input Overvoltage Protection
- ±30 VDC continuous

### Input Overcurrent Protection
- 28 mA continuous

### Backplane Current Required
- 150 mA at 5 V maximum, 45 mA at 24 V maximum

### Common Mode Rejection
- 115 dB at 50/60 Hz

### Normal Mode Rejection
- 85 dB at 50/60 Hz

### Environmental Conditions
- Operational Temperature: -0 °C - 60 °C (32 °F - 140 °F)
- Storage Temperature: -45 °C - 85 °C (-49 °F - 185 °F)
- Relative Humidity: 5% - 95% (non-condensing)

### Thermal Dissipation
- 3.00 Watts, maximum

### Certifications
- UL/cUL Listed ANSI ISA 12.12.01 (Class I, Div 2, Groups ABCD), CE

### Recommended Cable
- For TC inputs: shielded, twisted-pair TC extension wire
- For RTD, mV, V, or mA inputs: Belden 8761 or equivalent

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1769sc-IF8u Specifications

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