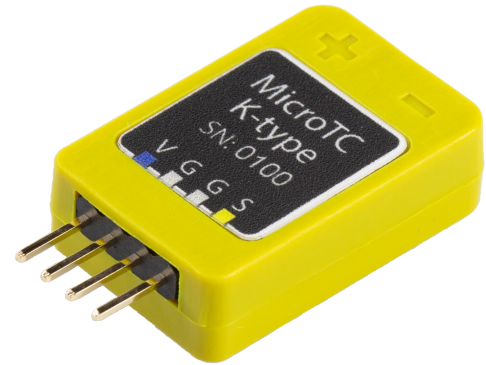


Thermocouple Amplifier

Model MicroTC

- Thermocouple connector and amplifier in one small unit
- Nonlinear thermocouple input signal is converted to linear output voltage
- Input signal is amplified to 5 mV/ °C
- Cold junction compensation
- Units available in K-type
- Signal bandwidth 2.35 kHz

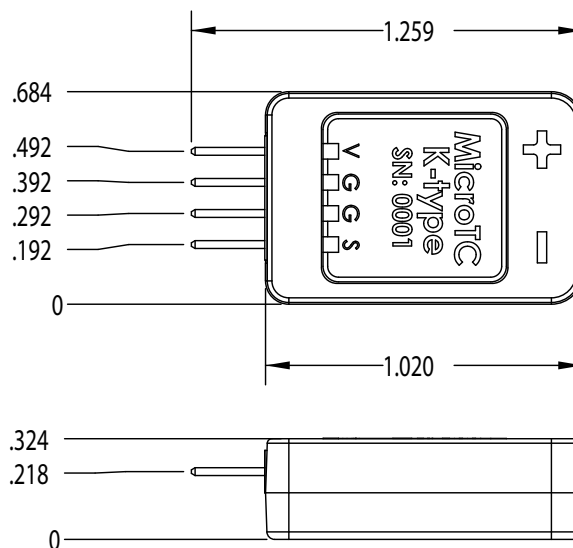


Description

The *MicroTC Linear Thermocouple Amplifier* is Michigan Scientific's smallest thermocouple amplifier package. A standard miniature male thermocouple connector plugs directly into the unit, and solder terminals on the back allow easy connection for power and signal.

The amplifier provides cold junction compensation and amplifies the thermocouple signal to a linear 5 mV/°C over a measurable range of -25 °C to 400 °C. The measurable range expands to -200 °C to 970 °C with the use of post-processing polynomials. The amplifier accepts a wide power supply range.

Configuration



8500 Ance Road
Charlevoix, MI 49720
Tel: 231-547-5511
Fax: 231-547-7070
03-17-22
Rev. A

MICHIGAN SCIENTIFIC
corporation
<http://www.michsci.com>
Email: miscinfo@michsci.com

321 East Huron Street
Milford, MI 48381
Tel: 248-685-3939
Fax: 248-685-5406

Thermocouple Amplifier

Specifications

| PARAMETER | SPECIFICATION |
|--------------------------------|---------------------------------------|
| INPUT | |
| Range (5mV/°C linear output) | -25 °C to 400 °C |
| Range (w/ polynomial equation) | -200 °C to 970 °C |
| OUTPUT | |
| Range | Min = -0.77 V; Max = 4.92 V |
| MEASUREMENT ERROR | |
| | ±2 °C Typical; ±3 °C Max |
| NOISE | |
| 0.01 - 10 Hz | 0.8 µV p-p |
| DYNAMIC RESPONSE | |
| | Higher Bandwidths available |
| Frequency Response -3dB | 2.35 kHz |
| Settling Time 0.1% | 36 µs |
| POWER REQUIREMENTS | |
| Voltage | +7 Vdc to +16 Vdc |
| Quiescent Current | 3.25 mA max |
| ENVIRONMENT | |
| Specification | 0 °C to +50 °C (+32 °F to +122 °F) |
| Operation | -40 °C to +100 °C (-40 °F to +212 °F) |
| MECHANICAL | |
| Weight | 3.9 g (0.14 oz) |
| Overall Length | 32.0 mm (1.259 in) |
| Overall Height | 8.2 mm (0.324 in) |
| Overall Width | 17.4 mm (0.684 in) |