

# Temperature/mV/Ohm to Current Signal Conditioner with RS485

This signal conditioner provides a single channel for temperature, mV, or Ohm input and a single channel current output. It uses RS485 communication and provides isolation between input channels, power, and network circuits.



## Overview

### M711 Remote I/O Module

The M711 is a versatile 1-channel signal conditioner designed for temperature, mV, and Ohm inputs with a 1-channel current output. It features robust 4-way isolation to eliminate ground loops and supports standard RS-485 Modbus RTU communication for seamless integration into industrial networks. With programmable input types, hot-swappable capability, and support for both AC and DC power, it is an ideal solution for remote I/O data acquisition systems.

## Input & Output

|                         |  |
|-------------------------|--|
| Supported Input Signals | TC (K/E/S/B/R/J/T/N), RTD (PT100/PT200/PT500/PT1000/Cu50), Resistance, mV, Voltage |
| Input Channels          | 1  |
| A/D Resolution          | 24 bit   |

## Communication

|                        |                   |
|------------------------|-------------------|
| Communication Protocol | Modbus RTU        |
| Baud Rate              | 4800 - 115200 bps |
| Drive Capacity         | 64 nodes          |

## Performance

### Performance Metrics

|                               |                                     |                          |
|-------------------------------|-------------------------------------|--------------------------|
| <b>0.4 S</b><br>Response Time | <b>9 times/sec</b><br>Sampling Rate | <b>1 W</b><br>Power Loss |
|-------------------------------|-------------------------------------|--------------------------|

### Measurement Accuracy

| Signal Type | Accuracy                   |
|-------------|----------------------------|
| TC          | $\leq 1^{\circ}\text{C}$   |
| RTD         | $\leq 0.2^{\circ}\text{C}$ |
| Resistance  | $\leq 0.05\% \text{ F.S.}$ |
| mV          | $\leq 10\mu\text{V}$       |
| Voltage     | $\leq 10\text{mV}$         |

## Power & Environment

|                       |                       |
|-----------------------|-----------------------|
| Power Supply          | 24VDC $\pm$ 10% or AC |
| Operating Temperature | -10 to 70°C           |
| Relative Humidity     | 5-95% non-condensing  |

## Physical & Construction

|                   |                              |
|-------------------|------------------------------|
| Isolation Voltage | $\geq$ 1500VAC/1min          |
| IP Rating         | Casing: IP50, Terminal: IP20 |
| Weight            | 122 g                        |