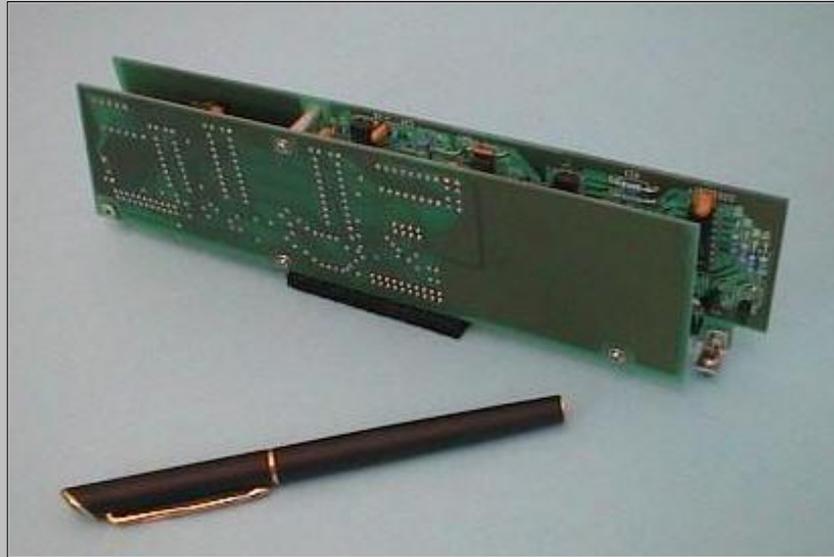


# HyperLogger HLIM-4 RTD, Thermistor, Resistance Interface Module

## Features...

- 4 Inputs, each programmable for RTD, Thermistor or Resistance inputs
- 100 and 1000 ohm , Eu and Am RTD's supported
- 12 Resistance ranges
- 2, 3, and 4-wire connections supported
- Programmable, integral current source excitation
- 10,000 ohm NTC Thermistor support
- No external "kludge" circuitry required
- Plug and Play compatibility with HyperLogger data logging system
- Encoded module ID for automatic identification



## HLIM-4 Overview...

The HLIM-4 HyperLogger family Interface Module provides the signal conditioning including excitation, amplification, and filtering for directly interfacing the HyperLogger data logging System Base to resistive type sensors and signal inputs. The module provides four *input* channels. Each of the input channels can be individually programmed for any of the three input types.

The HLIM-4 channels are configured completely via the HyperWare software. Input type, output units (eg C or F) and features such as filtering, wiring configuration and even excitation current are simply User specified during the programming sequence for the HyperLogger. For RTD and thermistor inputs, conversion from resistance to temperature is simply handled automatically without tedious manual entry of conversion algorithms. Pulsed power excitation of the sensor is automatically handled by the HyperLogger in concert with the HLIM-4... essentially eliminating errors associated with excitation current (power) induced self-heating.

The HLIM-4 simply secures into the HyperLogger backplane within the System Base.. and can be added in the field by the User. The module installation and hardware configuration is automatically detected via the HyperLogger and communicated to the HyperWare software during the programming process. Input types, and other setup parameters are then software selected via the unique and powerful HyperWare icon based programming system.

All modules are calibrated, 100% performance and accuracy tested before shipping.. assuring Users of a consistent high quality product.

## HLIM-4 Applications...

- **Process or Lab Temperature Measurement** - The HLIM-4 in concert with the HyperLogger data logging system and HyperWare software is ready to connect right up to RTD's and thermistors. No external circuitry, reference dividers, etc are required... just wire up the sensors, configure and log.
- **Wind Direction Measurement** - Meteorological wind direction vanes are commonly designed with rotary potentiometers (resistors) for the position sensing element. The HLIM-4 can directly interface to these type of wind direction indicators... simply providing the excitation and sampling without further additional circuitry. This measured resistance can then be easily converted to actual wind direction per the wind vane manufacturer's calibration equation by simple programming within the HyperLogger system base.
- **Position Sensing** - linear potentiometers can provide an inexpensive limited lifetime alternative to LVDT's and other position sensing sensors. These linear pots can simply be interfaced to the HyperLogger via the HLIM-4 for sensing suspension travel, automation movements, etc.

## HLIM-4 Technical Specifications...

Provides 4 individually programmable channels of RTD, strain gauge, thermistor, and resistance input. Any combination of the following types/ranges can be configured on a module.

<b>RTD:</b> Type: Curve: Accuracy:	2, 3, or 4 wire connection (3 and 4 wire require channel pairs) PT100 ohm or PT1000 ohm; American or European Curves +/- 0.5C (limited range), +/- 1.0C (full range)
<b>Resistance:</b> Type: Ranges: Accuracy:	2, 3, or 4 wire connection (3 and 4 wire require channel pairs) 12 user selectable ranges; 200 ohm FS to 400,000 ohm FS 0.1% FS
<b>Thermistor:</b> Types: Accuracy:	10K ohm at 25C NTC thermistor, NTC (contact Logic Beach for curve) +/- 0.5C

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