

# UNIVERSAL INTERFACE MODULE

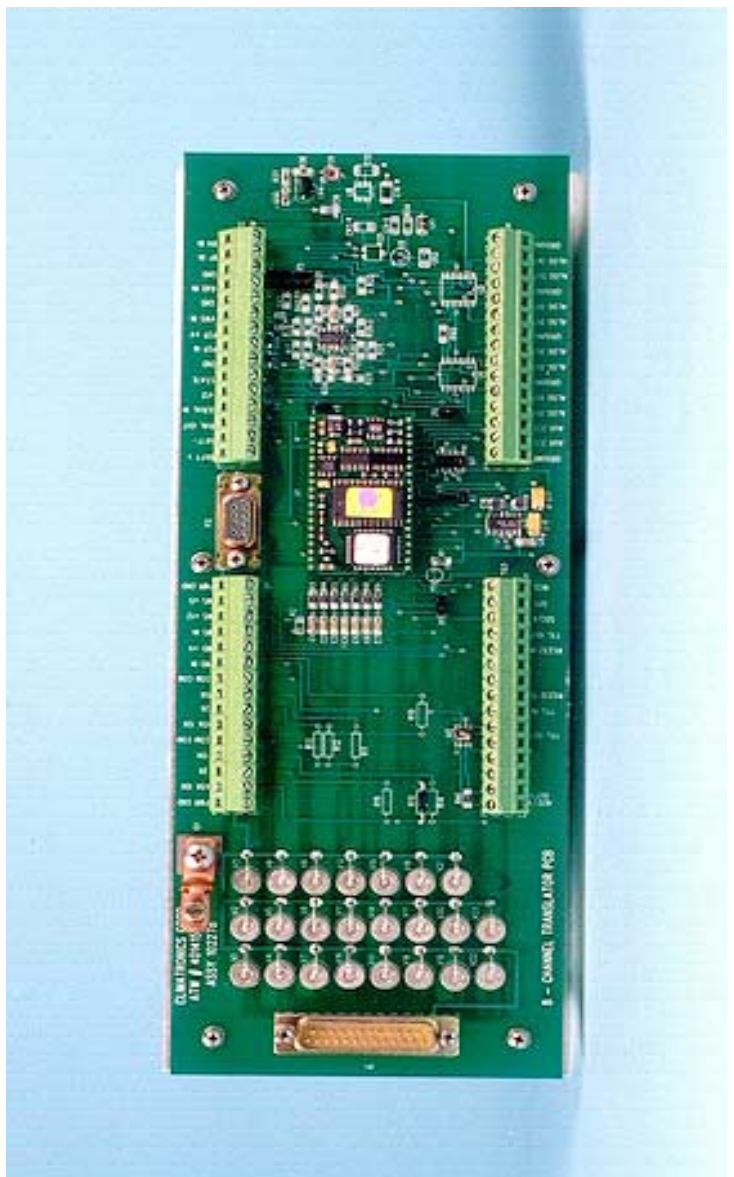
## FEATURES

- **Microprocessor Controlled**
- **Analog and RS-232 Outputs**
- **Accepts Various Sensor Inputs**
- **Wide Operating Temperature Range**
- **Low Power Consumption**

Climatronics' new Universal Interface Module (P/N 102278), with simultaneous analog and RS-232 outputs, provides an accurate and inexpensive way to connect your PC or analog input data logger to several of Climatronics' (or other) meteorological sensors. The universal interface module features excellent input/output flexibility, low power consumption and a wide operating temperature range.

A 12-bit analog-to-digital converter, controlled by a microprocessor, converts the electrical signal of up to 8 different sensors into a standard RS-232 serial data output. The microprocessor scans all inputs and refreshes all outputs at the rate of once per second. The data format is: no parity; 8 data bits; 1 stop bit, at a standard output rate of 19.2K baud. A 12-bit digital-to-analog converter provides the factory configured 0 to 1 or 0 to 5 VDC linear analog voltage outputs.

The interface module may be programmed to calculate either 1, 5, 15, or 60-minute averages. When in the 15 minute average mode, a standard deviation of wind direction (Sigma Theta) calculation is available based on the EPA approved Yamartino method. The engineering units, range of measure and the digital data output rate are all fully configurable. Special input/output options are available. Please consult with a sales engineer at one of our offices for details.



## SPECIFICATIONS

### PERFORMANCE SPECIFICATIONS

Output accuracy +/- 0.05% of input range  
Resolution 12 bit A/D

### ELECTRICAL SPECIFICATIONS

Inputs & type 8 analog @ 0 to 5 VDC and two 8-bit digital counters  
Outputs & type 8 analog @ 0 to 1 or 0 to 5 VDC  
RS-232C, 300-19200 BPS, ASCII, 0/8/1 format  
RS-422/485 (Optional)  
Power 9.5 to 16 VDC, 50 mA @ 12 VDC

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range -25° to 50°C (-13° to 122°F)\*  
Humidity 0 to 100%, non condensing

### PHYSICAL SPECIFICATIONS

P/N 102278, PC BOARD

Size 114.3H x 304.0W mm  
(4.5 in H x 11.875 in W)  
Weight 0.22 kg (0.5 lbs)

P/N 102292, RACK MOUNT VERSION

Size 133H x 483W x 102D, mm  
(5.25 in H x 19 in W X 4 in D)  
Weight 2.7 kg (6 lbs)  
Mounting Standard 19 in rack mount

### STANDARD MEASUREMENT RANGES\*

Wind Speed 0 to 50 m/s, 0 to 50 mph, 0 to 100 mph or 0 to 100 kph  
Vertical Wind Speed +/- 6 m/s or +/- 10 mph  
Wind Direction 0 to 360° or 0 to 540°  
Air Temperature -25° to 50°C, 0° to 50°C, -25° to 125°F or 0° to 120°F  
Relative Humidity 0 to 100%  
Dew Point Calculated based on air temperature and humidity values  
Solar Radiation 0 to 1400 W/m<sup>2</sup> or 0 to 2 Langley  
Barometric Pressure 800 to 1100 mb, 600 to 1100 mb or 28 to 32 in Hg  
Precipitation 0 to 10 mm, 0 to 1 in or 0 to 10 in

*\* Consult the factory regarding optional extended operating temperature range, sensor compatibility and special measurement range options. A nominal engineering/configuration charge may be required for your particular application*



**Climatronics Corporation**  
140 Wilbur Place  
Bohemia, NY 11716-2404

TEL: 631-567-7300  
FAX: 631-567-7585  
E-Mail: sales @climatronics.com