

## SENSOR SPECIFICATIONS

### RELATIVE HUMIDITY(EE)

- Measurement Range 0 to 100%RH
- Accuracy  $\pm 2\%$  RH (0...90 % RH)  $\pm 3\%$  RH (90...100 % RH)
- Output 0.00...100.00 % RH
- Response <15 sec without filter

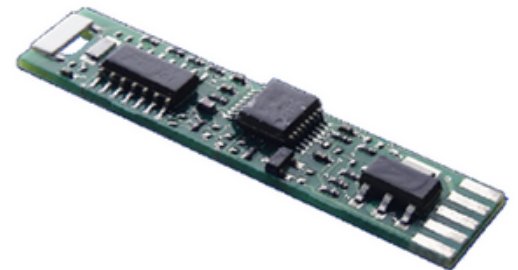


### TEMPERATURE SENSOR

- Sensor Pt1000
- Modbus output range -40.00...+80.00 °C (-40...176 °F)
- Supply voltage 4 - 28 V DC
- Interface / Bus RS485 / Modbus in slave mode

### TEMPERATURE & HUMIDITY (INSTRONICS)

- Measurement Range -25 to +85 deg C, RH 0 to 100%
- Accuracy: <3% RH (15 to 85% RH @23 deg C)
- Output 4 to 20 mA (0 to 100% RH)
- Response <15 sec without filter



### WIND DIRECTION (ULTRASONIC)

- Range : 0 – 359° (No dead band)
- Display Resolution 16 points (22.5°) on compass rose, 1° in numeric display
- Accuracy:  $\pm 2^\circ$  @12 m/s °



## SENSOR SPECIFICATIONS

### WIND SPEED (ULTRASONIC)

- Resolution and Units Measured: 0.01 m/s (0.02 knots)
- Range: : 0 – 60 m/s (116 knots)
- Accuracy: :  $\pm 2\%$  @12 m/s
- Maximum Cable Length 240'(73m). Maximum windspeed
- Reading decreases as the length of the cable from the Anemometer to the ISS increases. At140'
- (42m), maximum speed is 135 mph (60m/s). At 240', the maximum is 100 mph



### WIND DIRECTION (GILL ONLY)

- Range 0 – 359° (No dead band)
- Accuracy  $\pm 2^\circ$  @12 m/s
- Resolution  $1^\circ$
- Response Time 0.25 second



### WIND SPEED (GILL ONLY)

- Range 0 – 60 m/s (116 knots)
- Accuracy  $\pm 2\%$  @12 m/s
- Resolution 0.01 m/s (0.02 knots)
- Response Time 0.25 seconds

### WIND SPEED (SIVARA)

- Power supply : 24 Vdc
- Output : 4- 20 mA
- Range : 0 -250 Km/hr
- Termination : Screw Terminals Housing: IP65



## SENSOR SPECIFICATIONS

### WIND DIRECTION (SIVARA)

- Wind Speed Range: 0.5 to 50 m/s
- Wind Speed Accuracy: +/- 3% FS
- Startup wind speed: 0.5m / s
- Output: Pulse, 62 Hz = 250 km/hr
- Dimensions: 3 cup Dia 15 cms
- Cable length: 2 mts
- Temperature: - 40 ~ 75 ° C



### WIND DIRECTION & WIND SPEED SENSOR (DAVIS)

- Operating Temperature -40° to +149°F (-40° to +65°C)
- Wind Speed: Solid-state magnetic sensor
- Wind Direction: Wind vane and potentiometer
- Wind Direction
- Display Resolution 16 points (22.5°) on compass rose,
- Range: 0-360°C
- Accuracy: ±3°



#### Wind Speed

- Range: 1 to 200 mph, 1 to 173 knots, 0.5 to 89 m/s, 1 to 322 km/h.
- Accuracy: ±2 mph (2 kts, 3 km/h, 1 m/s)

### RAINFALL SENSOR (RAIN WISE)

- Output: Less than 0.1 sec. switch closure
- Capacity: 6 to 24 VDC @ 500ma
- Resolutions Available: 0.01 inches
- Accuracy: 2% at 1.5" per hour



## SENSOR SPECIFICATIONS

### **RAINFALL SENSOR (0.2MM)**

- High accuracy, good stability
- Mesh in the funnel preventing debris such as leaves and insects from entering the working of rain
- sensor (mesh is optional).
- Highly polished stainless steel construction.
- Rain collector with filter, to prevent the leaves, such as debris jam over the hole.
- Optional heating function in cold region.

### **RAINFALL SENSOR (0.5 MM)**

- Diameter:  $\phi 200$  mm
- Collector Area: 314 cm<sup>2</sup>
- Resolution: 0.5 mm and 1 mm
- Accuracy: a)  $\pm 2\%$  for rain rate up to 25mm/hr
- $\pm 3\%$  or better, for rain rate between 25mm/hr to 150mm/hr
- Output Dry reed switch contact pulses, RS485 (optional)
- Operating temperature: -20 to +80°C (no freeze)
- Material Collector: 304SS, tipping bucket: ABS
- Weight: 3 Kg

### **SOLAR RADIATION SENSOR (MS 40)**

- Operating Temperature Range: -40 – 80 °C
- Irradiance range: 0 – 2000 W/m<sup>2</sup>
- Wavelength range 285 – 3000 nm
- Output Analog (mV)
- Response time 95% < 18 Sec.
- Directional response at 1000W/m<sup>2</sup> +/- 20 W/m<sup>2</sup>
- Temperature response -10°C to 40°C +/- 3 %
- Temperature response -20°C to 50°C +/- 3 %



## SENSOR SPECIFICATIONS

### **SOLAR RADIATION (MS 01)**

- Output Analog (mV)
- Response time 95% < 1 ms
- Directional response at 1000W/m<sup>2</sup> < 10 W/m<sup>2</sup>
- Temperature response -10°C + 40°C < 0.15 %/°C
- Wavelength range 400 – 1100 nm
- Operating temperature range -30 – 70 °C
- Irradiance range 0 – 2000 W/m<sup>2</sup>



### **SOLAR RADIATION (ML 02)**

- Response time 95% < 1 ms
- Directional response at 1000W/m<sup>2</sup> < 10 W/m<sup>2</sup>
- Operating temperature range -30 – 70 °C
- Irradiance range 0 – 2000 W/m<sup>2</sup>
- Wavelength range 400 – 1100 nm (50% points)



### **SOLAR RADIATION SENSOR (ML 01)**

- Response time 95% < 1 ms
- Directional response at 1000W/m<sup>2</sup> < 10 W/m<sup>2</sup>
- Temperature response -10°C + 40°C < 0.15 %/°C
- Sensitivity Approx. 50 µV/W/m<sup>2</sup>
- Wavelength range 400 - 1100 nm
- Operating temperature range -30 - 70 °C
- Irradiance range 0 - 2000 W/m<sup>2</sup>



### **SOLAR RADIATION SENSOR (DAVIS)**

- Operating Temperature -40° to +150° F (-40° to +65° C)
- Storage Temperature -50° to +158°F (-45° to +70°C)
- Resolution and Units 1 W/m<sup>2</sup>
- Range 0 to 1800 W/m<sup>2</sup>
- Accuracy ±5% of full scale (Reference: Eppley PSP at

## SENSOR SPECIFICATIONS

### **BAROMETRIC PRESSURE SENSOR (SGS)**

- Range 600 to 1100 hPa User programmable to optimize the range of application
- Digital Accuracy  $\pm 0.15$  hPa at 25 C
- Analog Accuracy  $\pm 0.2$  hPa at 25 C
- Resolution Digital: 0.01 hPa Analog: 0.025% of analog scale
- Long Term Stability  $< \pm 0.1$  hPa / year
- Input Voltage 7 to 30 V DC
- Response Time  $< 0.5$  second



### **BAROMETRIC PRESSURE SENSOR (MS)**

- Pressure range 500 to 1100 hPa (or custom)
- Temperature range  $-40$  °C to  $+60$  °C
- Storage temperature  $-40$  °C to  $+60$  °C
- Accuracy  $\pm 0.3^*$  hPa ( $-40$  °C to  $+60$  °C)
- Long-term stability  $\pm 0.2$  hPa / year



### **BAROMETRIC PRESSURE SENSOR (APOGEE)**

- Measuring Range: 15 to 115 kPa (approximate)
- Output Voltage Range 0 to 5 V DC
- Sensitivity: 45.9 mV per kPa; 0.459 mV per 0.01 kPa (approximate)
- Response Time: 1 ms



### **LEAF WETNESS**

- Dry output 0.25 V approx.
- Fully wet output 0.4 V approx.
- Probe dimensions, cm  $11.2 \times 5.8 \times 0.75$
- Operating temperature 0 to 50 °C
- Protection index IP 67



## SENSOR SPECIFICATIONS

### UV SENSOR (DAVIS)

- **Operating Temperature**-40° to +150° F (-40° to +65° C)
- **Storage Temperature** -50° to +158°F (-45° to +70°C)
- **Sensor Output**
- **Resolution and Units** 0.1 MEDs to 19.9 MEDs;
- **1 MED above 19.9 MEDS**
- **Range** 0 to 199 MEDs
- **Accuracy** ±5% of daily total
- **Resolution and Units** 0.1 Index
- **Range** 0 to 16 Index
- **Accuracy** ±5% of full scale (Reference: Yankee UVB-1
- **at UV Index of 10**

