# **EVERGREEN TELEMETRY**

### FASTER EASIER SAFER

### PRODUCT CATALOG



### ONE METER FOR:

Air & Water Pressure, Velocity, Flow Temperature, Humidity, CO2

Free Field Trials Available! Zero Obligation!

www.evergreentelemetry.com

(602) 574-6192

customer.service@evergreentelemetry.com

### Wrist Reporter



Evergreen Telemetry's innovative instrument architecture delivers unprecedented convenience and speed for technicians in the field. An all-in-one meter for balancing, commissioning, and troubleshooting. The Wrist Reporter's wireless technology allows the user to connect up to ten sensors simultaneously. The Wrist Reporter displays real time readings for damper adjustments. Store up to 100,000 readings in the Wrist Reporter for later upload into an Excel spreadsheet. Connect to your laptop or PC for real-time datalogging. Measurement types include differential air pressure, velocity, flow, temperature, humidity, CO2, barometric pressure, density, and water pressure.



### **Applications**

- Airflow Measurements
- Datalogging
- Room-to-Room Pressure

### Features and Benefits

- Connect up to 10 modules simultaneously
- · Continuous readings, wirelessly to your wrist
- Store up to 100,000 data points

### PVF Module



The PVF module reads pressure, velocity, and airflow. For room-to-room pressure applications, a user can place up to 10 pressure modules and monitor all 10 concurrently while making adjustments. This allows changes in dampers and fan speed to be evaluated in real time. Faster, Easier, Safer! The PVF module is also used for velocity and flow applications. Every PVF module is calibrated against NIST standards and comes with a calibration certificate.





### **Applications**

- Room-to-room pressure; duct static
- Multiple diffuser air flow relationships

Operational Temperature Limits......40°F to 140°F

· Velocity and airflow readings



Air Flow....... $\pm$  3% of reading  $\pm$  7 cfm from 100 to 2500 cfm

Air Velocity...... $\pm$  3% of reading  $\pm$  7 fpm from 50 to 8000 fpm Pitot tube; 50 to 5000 fpm foil-type probe

Air Density Correction......local air density correction range is 14 to 32 in Hg and 32°F to 158°F

Differential Pressure...... $\pm$  2% of reading  $\pm$  0.001 in wc from 0.01 to 10 in wc;  $\pm$  10 in wc FS; 100 in wc safe pressure

Absolute Pressure..... $\pm$  2% of reading  $\pm$  0.1 in Hg from 14 to 32 in Hg referenced to vacuum

(corresponds to elevation of 36,000 ft.)

Battery......Lithium Ion. 30 hours per charge. Recharge in 4 hours



## **TELEMETRY**

### **EVERGREEN** Temperature & Humidity

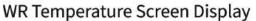
# SAFER

The temperature and humidity modules were designed for outstanding accuracy and meet or exceed current industry standards. Modules can be attached to ducts, coils, or grilles and send continuous wireless readings back to the Wrist Reporter. The user can connect as many as 10 modules and view temperature or humidity readings in real time as adjustments are made.

#### Temperature (RM-T-1)

The temperature module is designed to be used with three types of temperature probes: air, surface, and water insertion. The modules and probes can be purchased as a complete sensor or separately. All temperature modules and probes are calibrated against NIST standards and include a calibration certificate.









**Temperature Probes & Sensor** 



WR Humidity Screen Display





### Humidity (S-H-3-5)

The humidity module is a smart psychrometric sensor. It directly measures temperature (dry bulb), humidity (%RH), and barometric pressure. It calculates complete psychrometric data displaying wet bulb (no wet sock required) enthalpy (h), humidity ratio (w), grain of moisture (gr), and specific volume (v). The humidity module is calibrated against NIST standards and includes a calibration certificate.

\*See pages 4 and 16 for Product Specifications

### Meter-Sensors

# SAFER



Meter-Sensors have an on-board display and can be used as a stand-alone unit when taking quick readings.

The temperature and humidity Meter-Sensor (MS-TH-1) can also be connected to the Wrist Reporter for complete psychrometric data, applications that require multiple readings from multiple locations, or datalogging projects.

All temperature probes are interchangeable with the sensor for air, surface, or water. Along with T&H Probes specific to the temperature and humidity Meter-Sensor. Available in 5", 12" and 24" lengths, T&H probes can be used for various duct sizes, or unique applications. All Meter-Sensor modules and probes are calibrated against NIST standards and include a calibration certificate.

MS-TH-1 with on-board display



### Specifications

#### **Temp Specs**

TEMP (RM-T-1, PR-T-5, PR-T-2, PR-T-4-6) -

#### Temp Parameters:

Range 1 - 0°F - 200°F (+/- 1.0) Range 2 - 32°F - 158°F (+/-.3) Resolution - 0.1 Units - °F

Hum (SH35, MS-TH-1, PR-TH-1, PR-TH-12, PR-TH-24) -

#### Temp Parameters:

Range - 0°F - 200°F (+/- 1.0) Resolution - 0.1

#### **Humidity Specs**

For all HUM Modules: (SH35, MS-TH-1, PR-TH-1, PR-TH-12, PR-TH-24)

Range: 10% – 90% (+/- 3%)

Resolution - 0.1 Units - RH%

MS-TH-1 with 5", 12" and 24" T&H Probes



MS-TH-1 with PR-T-4 Immersion Probe



### Meter-Sensors

### FASTER EASIER SAFER



Indoor Air Quality is more important than ever to the health, safety, and well-being of building occupants. The CO<sub>2</sub> module and Personal Air Safety Reporter (PASR) were designed to monitor air quality through the CO<sub>2</sub> measurements in rooms, meeting spaces, or any other enclosed space. When indoor air is fresh and safe to breathe, CO<sub>2</sub> is low and sufficient outside air is being delivered to wash away air that has been used and contaminated by particles, bacteria, and viruses.

#### CO<sub>2</sub>

The CO₂ module (MS-CO2-1) is designed for TAB and Cx professionals. The on-board display can be used for a quick check of

The on-board display can be used for a quick check of ventilation effectiveness at a single location. The included probe is the standard %", for use in supply ducts. The CO<sub>2</sub> module can also be connected to a Wrist Reporter for multiple readings, from multiple locations, or set inside an air handler while readings are received on the outside. The CO<sub>2</sub> module is calibrated against NIST standards and comes with a calibration certificate.



MS-CO2-1



#### **PASR**

The Personal Air Safety Reporter or "PASR" is designed for enclosed spaces so occupants can visually see how healthy the air quality is in any meeting space. The PASR displays temperature, humidity, and the level of CO<sub>2</sub> in the air. LED lights indicate these categories:

400 to 1000 PPM Good 1000 to 2000 PPM Poor 2000+ PPM Dangerous

### **Applications**

- Schools
- Automobiles or Truck Cabs
- Hospitals
- Homes
- Restaurants

### Specifications

- CO<sub>2</sub> Accuracy: 5% + 50 PPM
- CO<sub>2</sub> Range: 400 to 5000 PPM
- Temperature Range: 40F to 120F
- Humidity Range: 10 to 90%

### Pressure Surveying





#### Door Pressure TAB KIT

The Door Pressure TAB Kit is an accessory bundle for use with the Wrist Reporter and Pressure/Velocity/Flow module. It is designed specifically for room-to-room pressure surveying, setting, and adjusting. The Door Pressure TAB kit comes with an over-the-door probe (hanger), an under-door probe, and around-the-door probe, PVF module block, telescoping handle, and carrying case. Connect as many as eight PVF modules to the Wrist Reporter to view pressure hierarchy; adjust room to room pressures wirelessly and in real time.

- Under-door Probe is made of durable steel for easily sliding under closed doors.
- Around-door Probe is made of durable, pliable steel that can be bent around sliding glass doors or any place a tight seal is required.
- Over-door Probe (Hanger) is made of lightweight 3D printed materials. Only 3/32" thick, this probe can fit over most doors and can be left for long periods of time.
- The PVF module blocks are designed for both the thick and thin probes and can be used as stationary in front of a door or used with the telescoping handle to get a room pressure reading without bending down. Faster, Easier, Safer!



### Water Pressure

Evergreen Telemetry's water module reads up to 250psi. Once connected to the Wrist Reporter, the user can conveniently view high gauge, low gauge, and differential pressure on one screen, wirelessly. Designed to be compact and lightweight for ease of use in the field. Faster. Easier. Safer. The water module is calibrated against NIST standards and comes with a calibration certificate.





#### **Kit Includes:**

- 250psi Water Module
- Brass Fittings
- Exhaust and HVAC Hoses
- Carrying Case

Kit options available See pages 8 & 15 for more information



### Specifications

### Range

Differential Pressure and Gauge Pressure: - 5 PSI to + 250 PSI

Module operating temperature: 40 to 140°F

### Accuracy

Differential and Gauge Pressure: 2% of reading + last digit



## **EVERGREEN TELEMETRY**

### Kit Options

### FASTER EASIER SAFER

All Inclusive K-TAB-6



TAB Kit case when closed 23"x15"x9"



MODULES/PROBES	K-TAB-4	K-TAB-5	K-TAB-6	K-TAB-7	K-TAB-8	K-TAB-250	K-TAB-250-LT
Wrist Reporter with Thumbswitch	×	X	×	X	X	×	WR-201-W
Shock Absorbing Case for Wrist Reporter	X	X	X	X	X	X	X
Pressure / Velocity / Flow Module	Х	X	X	X	X(2)		
T&H Sensor with On-Board Display			X		X(2)		X
T&H Probe for T&H Sensor			X		X(2)		X
Temperature Sensor	X	X					
Surface Temperature Probe			X		X		
Water Insertion Temp Probe		Х	X		X(2)		X
Air Temp Probe	×	X					
Humidity Sensor		X					
250 PSI Water Module						X	Х
ACCESSORIES							
Velocity Grid (Dwyer)		X	×		X		
18" Air Foil (Dwyer)		X	X		Χ		
Velocity Grip Handle			X		X		
Velgrid Harness		X	X		Х		
Static Tips & Hoses (Dwyer)		X	X		X		
KTAB Case	X	X	X		Х		
Module Case				X			
Brass Kit and Hoses						X	X
Water Case						X	Х
Pricing							
Kit Price	\$3,999	\$5,299	\$5,499	\$2,999	\$7,499	\$5,199	\$3,999

### **Custom Kits Available!**

\*See pages 14-15 for Individual Pricing



For more information (602) 574-6192 customer.service@evergreentelemetry.com



### Capture Hoods



Evergreen Telemetry's line of capture hoods offer different options for different applications. View up to 4 real-time, continuous, wireless readings from different locations. With the magnet frame, you can make damper adjustments, with only one trip up the ladder. Faster, Easier, Safer!

Our hoods are manufactured right here in the USA, constructed from lightweight, high-tech materials. The Three Pounder and DIM hoods for biosafety cabinets come standard with the Bellmouth Belt. This accessory induces a superior airstream pattern, for the most accurate return/exhaust mode readings.



### **Feature**

- Weighs much less than conventional hoods
- Designed for reduced backpressure
- View 1-4 Hoods on one Wrist Reporter
- · Wireless real time readings to the Wrist Reporter

### **Applications**

- Commercial Ceiling Diffusers
- Sidewall
- Return Air/Exhaust
- UFAD
- BSC Hoods
- CFM Range from 5-3000





### Capture Hood Pricing

### Three Pound Capture Hood (CH-3#)- \$2,299



#### Kit Includes:

2x2' Skirt and Magnetic Frame
Bellmouth Belt
Plates to Adapt to Wide Flow Range
Straight Acme Threaded and 90° Sidewall Adapters
Anti-Jet/Blast Plate for Jet Diffusers
2-4' Extension Pole
Wheeled Case with Extendable Handle
(CFM Range 30-3000)
15" Cal

### 15" Capture Hood (CH-15D)- \$1,999

#### Kit Includes:

2x2' Skirt and Magnetic Frame Straight Acme Threaded, 90° Sidewall Adapter Anti-Jet/Blast Plate for Jet Diffusers 2-4' Extension Pole Wheeled Case with Extendable Handle (CFM Range 70-2500)



### 8" Low Flow Capture Hood (CH-8D)- \$1,699



#### Kit Includes:

14x14x12" and 14x14x24" Skirts 14x14" Frame 2-4' Extension Pole Carrying Case (CFM Range 5-150) \*5-15 CFM Flow plate sold separately

### DIM Capture Hood for BSC (CH-DIM)- \$2,499

#### Kit Includes:

Choice of 8", 10" or 12" Skirt (24" W x 24" L)

Corresponding DIM Frame
Set of Adjustable Side Panels
Bellmouth Belt
Plates to Adapt to Wide Flow Range
Straight and 90° Adapters
Short and Long Handles
2-4' Extension Pole
Wheeled Case with Extendable Handle
(CFM Range 30-3000)



(CFM Range 30-3000) \*See page 13 for Additional Skirt and Frame Options



### Hood Kit Pricing

HOOD KITS		K-TAB-8"	K-TAB-15"	K-TAB-3#
8" Low Flow	CH-8D	X		
15"	CH-15D		X	
3#	CH-3#			X

### **MODULES/PROBES**

Wrist Reporter with Thumbswitch WR-401/TS-1	X	×	×
Shock Absorbing Case for Wrist Reporter	X	×	×
Pressure / Velocity / Flow Module S-PVF-1	X	X	X

#### **ACCESSORIES**

Anti-Jet Blast Plate		X	X
Module Case	X	X	×
Small Hood Case	X		
Large Hood Case w/ Wheels		X	X

### **Custom Kits Available!**

Pricing			
Kit Price	\$4,699	\$5,099	\$5,299

#### **CASES**

Small Hood Case	\$299
Large Hood Case w/ Wheels	\$399
KTAB Case	\$399
Hard Cover Case for Modules	\$99
Zippered Case for Modules	\$29





## Skirts & Frames

Vinyl Skirts	8"	15"	3#	Frames	Solid	Assembly	
6"x48"x34" 14x14x12" 14x14x24" 16x16x24" 16x16x34" 1x2x24" 2x2x36" 2x2x24" 1x2'x34" 2x2'x34" 1x4'x34" 1x5'x34" 1x6'x34" 2x4'x34" 3x3'x42" 4x4'x42"	\$199 \$199 \$199 \$199 \$199 \$199	\$299 \$199 \$199 \$199 \$199 \$199 \$299 \$299	\$299 \$199 \$199 \$199 \$199 \$199 \$199 \$299 \$2	6"x48" 8"x24" 14x14" 16x16" 1x2' 2x2' 1x4' 1x5' 2x4' 1x6' 3x3' 3x4' 4x4'	\$199 \$199 \$199 \$199 \$199	\$349 \$299 \$299 \$299 \$399 \$399 \$449 \$449	*Magnet Frames add \$50 each  *Nylon Skirts add \$50 each  *Logo add \$50 each plus setup fee (\$199)  (Available on 2x2' skirts only)  (Minimum order of (5) skirts)

8x24x24"	\$299
10x24x24"	\$299
12x24x24"	\$299

### Frames (Solid)

8x24"	\$199
10x24"	\$249
12x24"	\$299

Custom Length for Tight Spaces (2x2'x24")





Custom Skirt and Frame Sizes
Available!



### Pricing



Wrist Reporter & PVF Module	Price	
Wrist Reporter (WR-401) with Thumbswitch (TS-1)		
Pressure/Velocity/Flow Module (S-PVF-1)		
Wrist Reporter (WR-201-W) with Thumbswitch (Compatible with Water Module & Temperature insertion probe only)		
Shock Absorbing Case for Wrist Reporter	\$59	
Temperature Sensor and Interchangable Probes	Price	
Temperature Sensor (RMT-1) Module only, requires probe	\$199	
Probe(s) Surface Temperature Probe (PR-T-2) Steel, Button-style, 3/8" dia.	\$129	
Insertion Temperature Probe (PR-T-4) Steel Water Insertion Probe, 1/8" dia. x 6"  *See page 3 for more info	\$149	
Air Temperature Probe (PR-T-5) Air only, 1/4" dia. x 5"	\$149	
Complete Sensor	Price	
Surface Temperature Sensor (S-T-2) Includes Module and Surface Probe	\$229	
Water Temperature Sensor (S-T-4) Includes Module and Water Insertion Probe	\$299	
Air Temperature Sensor (S-T-5) Includes Module and Air Probe	\$299	
Humidity Sensor (S-H-3-5) Psychrometric sensor for Temperature & Humidity. Measures temperature (dry bulb),	\$349	

### Coming soon Coil Temp Traverse Kit!

%RH, barometric pressure, enthalpy (h), humidity ratio (w), grains of moisture (gr), and specific volume (v).

\*See page 3 for more information

### Pricing



\*See page 4 for more info

### **Temperature and Humidity Meter-Sensor and Probes**

(With built-in display /No Wrist Reporter required)

Temp and Humidity Module (MS-TH-1) v	vith on-board display
Module only, requires probe.	# 151
Probe(s) only	
5" T&H Probe (PR-TH-1)	\$199
12" T&H Probe (PR-TH-12)	\$249
24" T&H Probe (PR-TH-24)	\$249
Temp and Humidity Sensor Kit 101	\$499
• Includes 1 Sensor (MS-TH-1) with on-bo	oard display

- 1 Temperature Insertion Probe for Air & Water (PR-T-4-6)

Temp and Humidity Sensor Kit 103 \$499

• Includes 1 Sensor (MS-TH-1) with on-board display

\$299

- 1 Temperature Insertion Probe for Air & Water (PR-T-4-6)
- 3 Temperature & Humidity Probes; 5" (PR-TH-1), 12" and 24" (PR-TH-24)

•15"	Temperature & Humidity Probe (Pi	R-1H-1)
Temr	and Humidity Sensor Kit 102	\$599

- remp and Humidity Sensor Kit 102 Includes 1 Sensor (MS-TH-1) with on-board display
- 1 12" Temperature & Humidity Probe (PR-TH-12)
- 1 24" Temperature & Humidity Probe (PR-TH-24)

CO <sub>2</sub> Sensors (With built-in display /No Wrist Reporter required)	\$499 \$299
CO <sub>2</sub> Sensor (MS-CO2-1) Personal Air Safety Reporter (PASR) *See Page 5 for more information	
Water Pressure	Price
250psi Water Module	\$2,399
HVAC Hoses, Exhaust Hose, Brass kit, and Case	\$569
Dewalt Case \$139	1.5.55
*See page 7 for Kit Pricing	

### **Room Pressure Kit and Accessories**

Door Pressure TAB Kit (DP-K) Kit includes Over, Under, & Around the Door Probes, Vertical and Horizontal PVF Mounts, Magnetic Handle, and Case

Sold Separately \$149 each

\*See page 6 for more information



Accessories	Price
Anti-Jet Blast Plate for 15" & 3# Hoods (for Sidewall Jet Diffusers)	\$49
Velocity Grip Handle (for single-handed traverse)	\$299
Velocity Grid Harness	\$149
Velocity Grid Threaded Adapter	\$29
Velocity Grid Kit	\$399
3/4, 1/2 or 1/4 Velocity Grid	\$339
18" Air Foil	\$299
Static Tips and Hoses	\$39

### Calibration & Repair



### **Calibrations in Two-Days, Guaranteed!**

Calibration and repair services are performed in-house by factory-trained technicians. All calibrations include NIST Traceable Calibration Certificates. The Wrist Reporter is a digital device for display and storage only; it has no role in measurement and does not require calibration. Firmware updates can be completed via our website or, if preferred, you can send it in with your calibration order for update and functional testing at no charge.

Evergreen Telemetry guarantees a two-day turnaround on calibration-only orders. If we receive the order on a Monday, it ships by Wednesday or the service is free. Repairs are typically completed and ready to ship in 3-5 business days. We also offer calibration services, including NIST Traceable certification, for Shortridge ADM and HDM's, but no updates, adjustments or repair services.

#### **Nominal Test Points**

- Barometric Pressure (in Hg): 20, 29, 32
- Differential Pressure (in wc): 10, 2, .5, .05, -10, -.05
- Temperature (°F): -40, 70, 240
- Velocity (FPM): 100, 500
- Airflow (CFM): Velocity and pressure tests are normally sufficient to guarantee airflow.

Additional test points may be added for a small fee.

Module/Sensor	Cost	Recalibration (Recommended)
Pressure Sensing Module: (S-PVF-1)	\$499	2 years
Water Pressure S-DP-xxx	\$599	1 year
Temperature Sensor and Probe	\$149	2 years
Temperature Sensor Probe Only	\$99 (2) or more = \$49 each	2 years
Humidity (Includes NEW Sensor Chip)	\$199	1 year
Capture Hood (add to module price)	\$249	Not Required
Shortridge ADM or HDM (Includes rechargeable Ni-MH 1.2v 200 MAH AA batteries)	\$599	
As Found Data	\$99	Upon Request Only

Service Request Form available online







### Specifications



#### Pressure Velocity Flow: S-PVF-1

- Air Flow
  - ± 3% of readings ± 7 CFM from 100 to 2500 CFM
- Air Velocity
  - ± 3% of readings ± 7 FPM from 50 to 8000 FPM Pitot tube
  - ± 3% of readings ± 7 FPM from 50 to 5000 FPM foil-type probe
- Air Density Correction
  - Local air density correction range is 14 to 32 in Hg and 32°F to 158°F
- Differential Pressure
  - ± 2% of reading ±0.001 inWC from 0.01 to 10 inWC; ± 10 inWC FS; 100 inWC safe pressure
- Absolute Pressure
  - ± 2% of reading ± 0.1 in Hg from 14 to 32 referenced to vacuum (corresponds to elevation of 36,000 ft.)
- Battery: Lithium Ion. 30 hours per charge. Recharged in 4 hours.
- Operational Temperature Limits: 40°F to 140°F

#### Temperature

Temperature Modules:

RM-T-1, PR-T-5, PR-T-2, PR-T-4-6

Temp Parameters:

- Range 1 0°F 200°F (+/- 1.0)
- Range 2 32°F 158°F (+/- .3)
- Resolution 0.1
- · Humidity Modules:

SH35, MS-TH-1, PR-TH-1, PR-TH-12, PR-TH-24

Temp Parameters:

- Range 0°F 200°F (+/- 1.0)
- Resolution 0.1

#### Humidity

· For all Humidity Modules:

S-H-3-5, MS-TH-1, PR-TH-1, PR-TH-12, PR-TH-24

- Range: 10% 90% RH
- Accuracy: +/- 3%
- Resolution 0.1

#### CO2

· CO, Modules:

MS-CO2-1, MS-PASR-1

- CO<sub>2</sub> Accuracy: 5% ± 50 PPM
- CO<sub>2</sub> Range: 400 to 5000 PPM
- Temperature Range: 40°F to 120°F
- Humidity Range: 10% to 90%

#### 250psi Water Module: S-DP-250

- · Range:
  - Differential Pressure and Gauge Pressure: -5PSI to 250 PSI
  - Module operating temperature: 40°F to 140°F
- Accuracy
  - Differential and Gauge Pressure: 2% of reading + last digit

