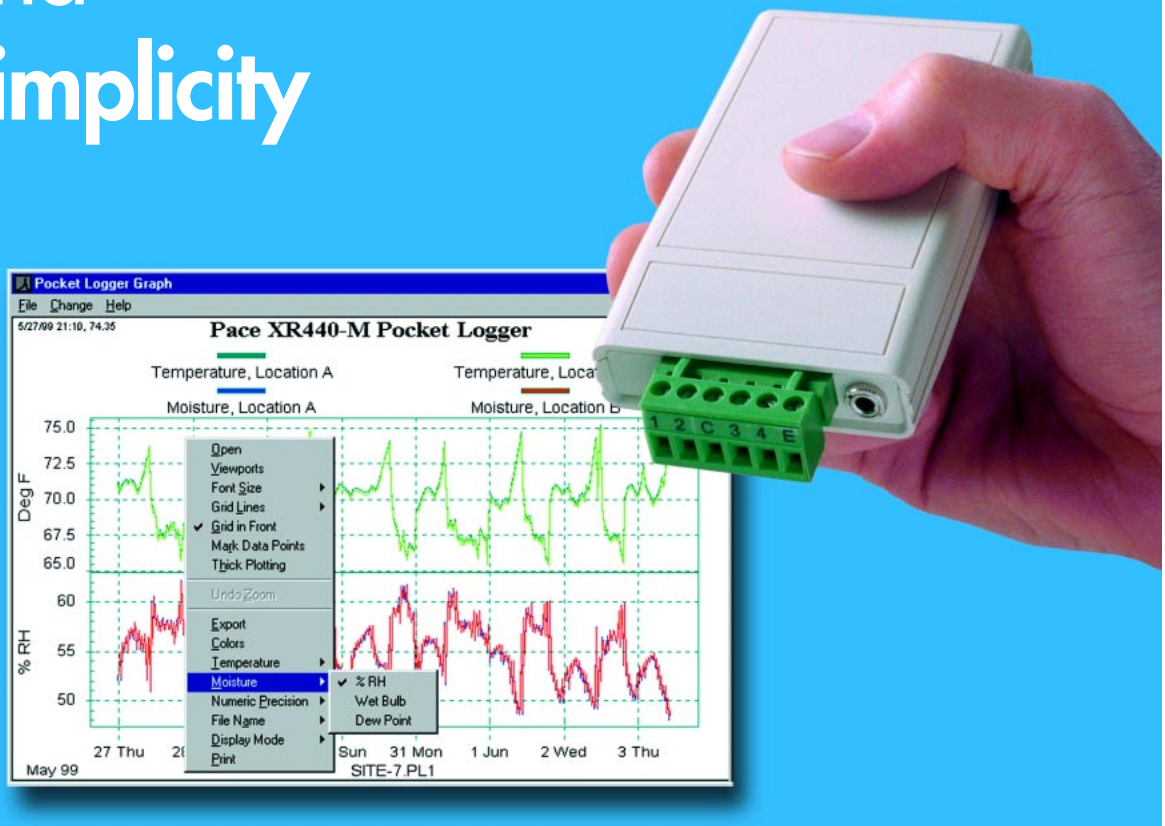
Power and Simplicity



XR440 Pocket Logger™

Pace Scientific
Data Loggers and Sensors

XR440 Pocket Logger™

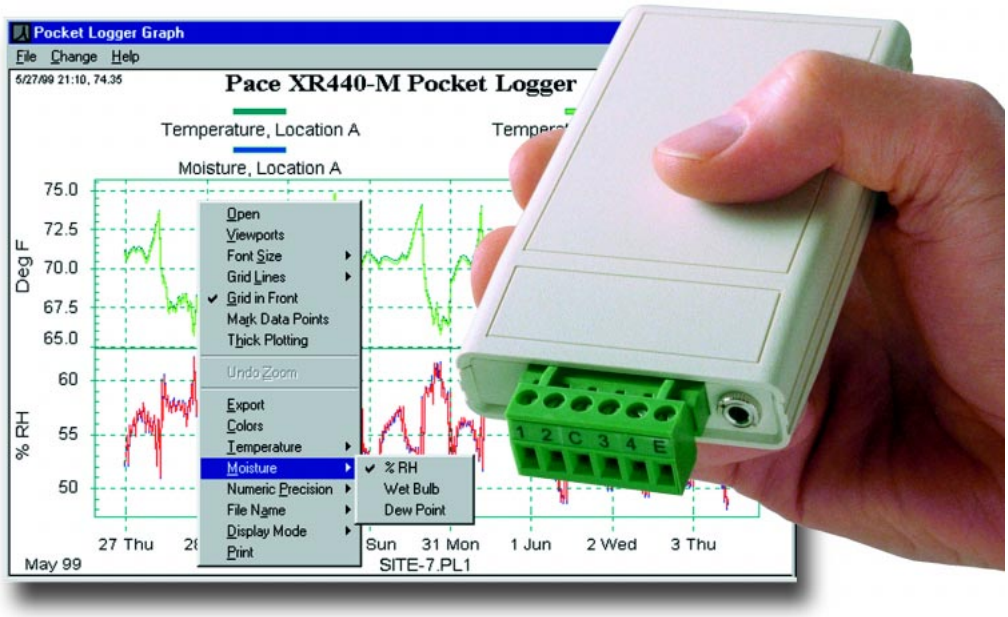
Our 10th Year

A pocket-size Data Logger with Sensors for:

- **Temperature**
- **Relative Humidity**
- **Pressure**
- **AC Current**
- **Light and more!**

Also records:

- **Process Signals**
- **Pulses & Events**



Complete software on web: **www.pace-sci.com**

CE

No Signal Conditioning or External Power Required!

NIST Traceable Certificate of Validation Included.

Four channels

The XR440 Pocket Logger™ is a buttonless, four channel recorder designed for easy setup and trouble-free operation.

Universal inputs

Connect any PACE sensor directly to any Pocket Logger input; you can mix and match sensors in any combination.

Proven Reliability

Proudly manufactured in the USA, the Pocket Logger's reliability has been proven by years of tough field use. Accuracy specifications are maintained without user adjustment. A Certificate of Traceable Validation is included with each unit.

Simplicity

With no power cord to run, and weighing only 6 ounces, you can mount a Pocket Logger anywhere. Unlike strip-chart recorders, there is no paper or ink, and no buttons - so no one can tamper with your data. In the field, your recorded data is easily transferred to a portable PC. Or carry the logger back to your office - in your pocket!

Powerful Software

A Pocket Logger's data is quickly transferred to a computer running Pocket Logger Software™. The software runs on Windows 3.1, 9x or NT and may be freely downloaded from our website! For advanced users, a command line interface enables the Pocket Logger to communicate with other programs.

Flexibility

You can access one or more Pocket Loggers at remote sites using dial-up modems (cellular or land line), or wireless transceivers. Multiple Pocket Loggers can be networked together using the M31 Multiplexer. Full support for dial-up modems, network and wireless communication is included with our *free* Pocket Logger Software.

Features

- Simple to use.
- Accepts over 25 direct-connect sensors.
- High accuracy: ±0.25% at 12 bits.
- Battery life of 2-3 years with any mix of sensors.
- User-replaceable battery.
- Real time 'Strip Chart' display mode.

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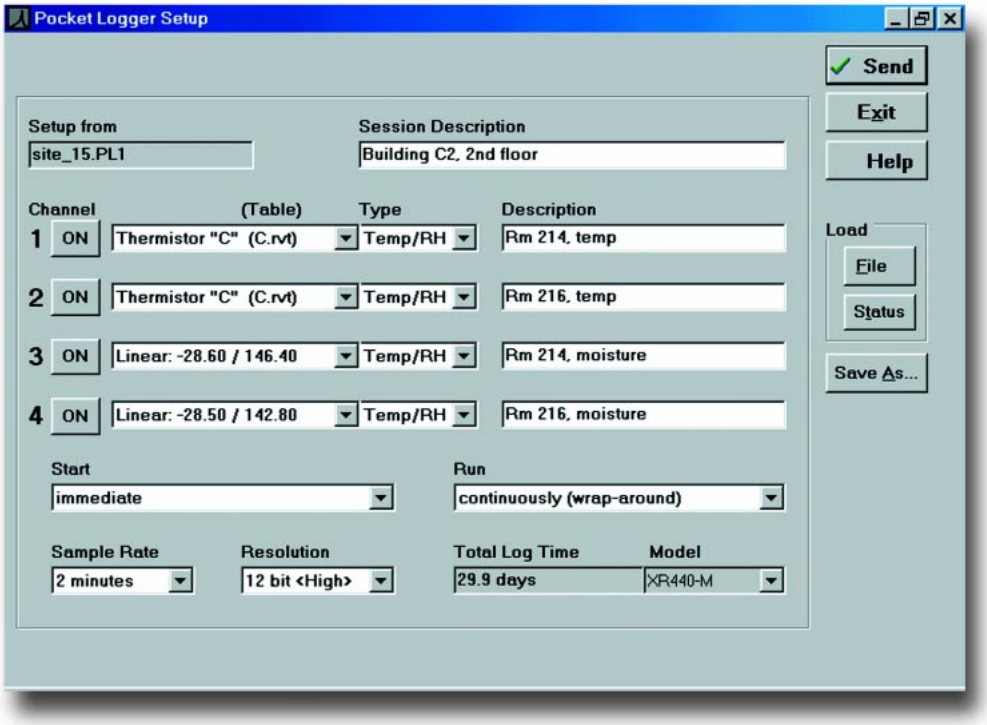
Y2K Compliant

Quick Setup

Select a sample rate, start and run mode, and sensor scaling. Descriptive labels for each sensor and the logging session may also be entered. Setups may be saved for later use.



On-line documentation

Questions about sensor wiring and scaling are quickly answered using the context sensitive help.

Free lifetime updates

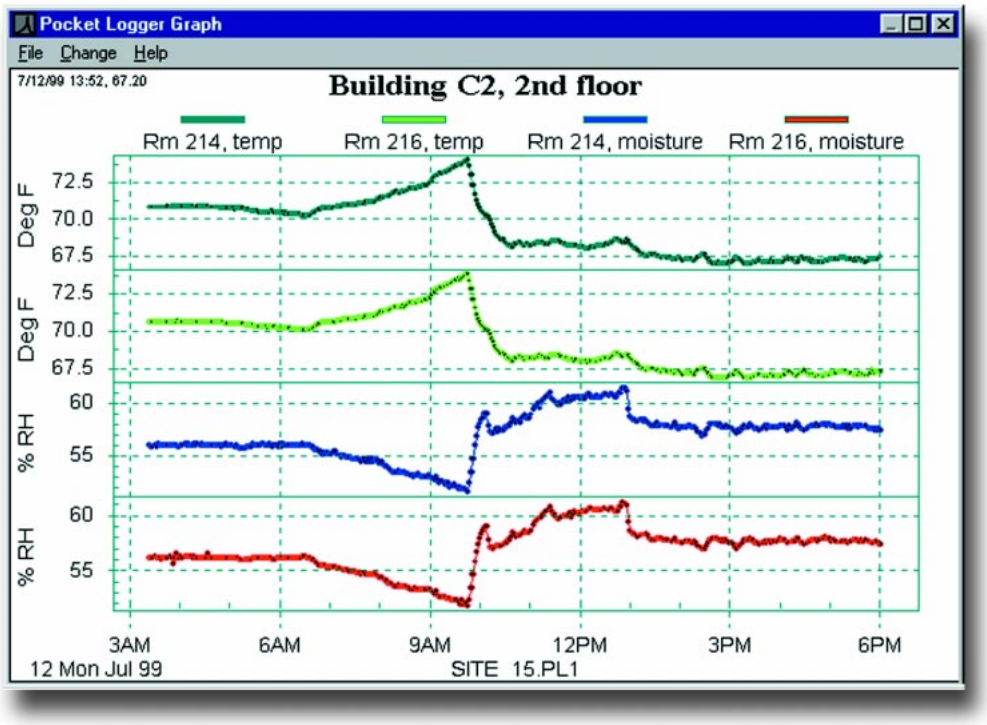
Pocket Logger Software works with all Pace data loggers. From the earliest units shipped almost a decade ago to the present day. The software is periodically updated with new capabilities. Updated software is posted on our website, available for free download.

Presentation quality graphs

An easy to read graph is instantly available whenever you transfer data from the Pocket Logger or view data in Real Time. Existing data files are quickly selected and displayed.

Graph components easily changed include:

- Data traces (combine, separate, or hide).
- Time scale (zoom).
- Moisture scale (relative humidity, dew point, wet bulb).
- Temperature scale (deg C / deg F).
- Trace thickness.
- Color of any graph component.
- Font size.



Export data

All or any portion of your logged data may be quickly exported to Excel or other programs.

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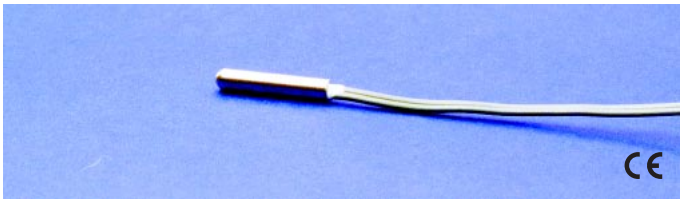
Temperature Probes

Pace Temperature Probes connect to any Pocket Logger input channel and contain a precision 30k ohm thermistor. Using 24 awg stranded copper wire, leads may be extended to over 100 FT (30 meters) with no degradation in accuracy. Accuracy specifications are on page 11.

Common Features

- **Accuracy to ±0.15°C**
- **Extend leads with ordinary copper wire**
- **±0.1°C interchangeability**

PT933



Closed end stainless steel tube, 3/16" dia. by 1" long, with 20 foot cable. Cable is parallel bonded 24 gage wire with PVC insulation. Suitable for general temperature applications.

Temperature range: -50 to 105°C (-58 to 221°F)
Lead length: 20 feet (6.1m)
Interchangeability: ±0.1°C from 0 to 70°C (32 to 158°F)

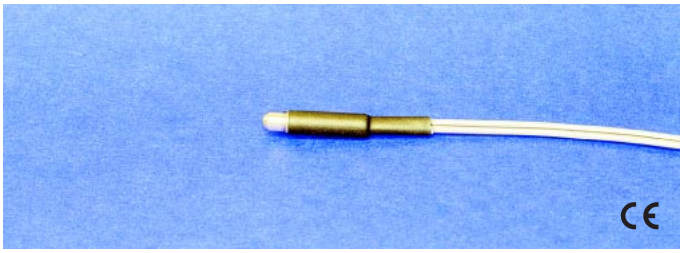
PT907

[Sorry - picture will appear in next update]

Closed end mylar tube 0.127" x 0.375" length. Parallel bonded 24 gage wire with PVC insulation, 4FT length. Not rated for immersion.

Temperature range: -50 to 105°C (-58 to 221°F)
Lead length: 4 feet (1.2m)
Interchangeability: ±0.1°C from 20 to 45°C (68 to113°F)

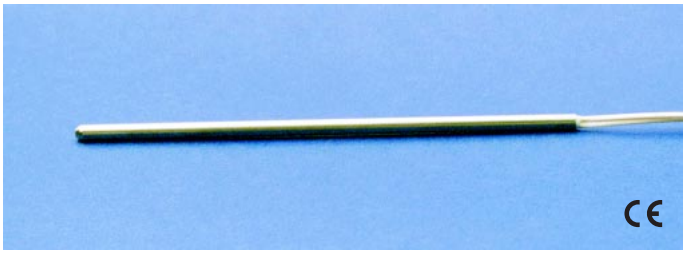
PT940



Similar to the PT933 Probe, but features a polyolefin jacket bonded to probe and cable to form a moisture-proof barrier. Suitable for soil temperature applications and wet environments.

Temperature range: -50 to 105°C (-58 to 221°F)
Lead length: 20 feet (6.1m)
Interchangeability: ±0.1°C from 0 to 70°C (32 to 158°F)

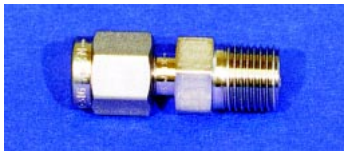
PT916



Closed end stainless steel tube, 1/8" dia. by 4" long. 24 gage Teflon insulated leads. Suitable for liquid or gaseous immersion, refrigeration (inserts into a Pete's Plug), and general temperature applications.

Continuous temperature: -50 to 120°C (-58 to 248°F)
Intermittent maximum: 302°F (150°C)
Lead length: 3 feet (0.9m)
Interchangeability: ±0.1°C from 0 to 70°C (32 to 158°F)

CF916-1/8

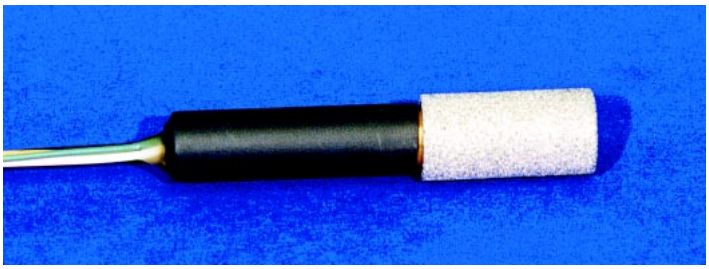


Optional bored-through stainless steel fitting for PT916 probe. 1/8 NPT male threads.

Relative Humidity & Temperature Probe

Uses two Pocket Logger channels. A total of two RH & Temp. Probes may be connected to one Pocket Logger. *Relative Humidity data is easily converted to Wet Bulb or Dew Point with a mouse click.*

- **High Accuracy**
- **Long Term Stability**



Operating Temperature:	-40 to 85°C (-40 to 185°F)
Humidity Range:	0-95% R.H.
Accuracy:	±2% RH from 0 to 95% RH
Stability:	±1% RH typical at 50% RH in 5 years
Hysteresis:	±0.8% of span maximum
Linearity:	±0.5% RH typical
Repeatability:	±0.5% RH
Physical:	Rugged housing with sintered SS filter.
Size:	0.5" dia x 2.5" long (13mm x 64mm)
Temperature accuracy:	See Specifications, page 11
Interchangeability:	±0.1°C from 0 to 70°C (32 to 158°F)
Part No:	(available in 3 lead lengths)
TRH-100	(12” leads)
TRH-100-10FT	(10 ft shielded cable)
TRH-100-20FT	(20 ft shielded cable)

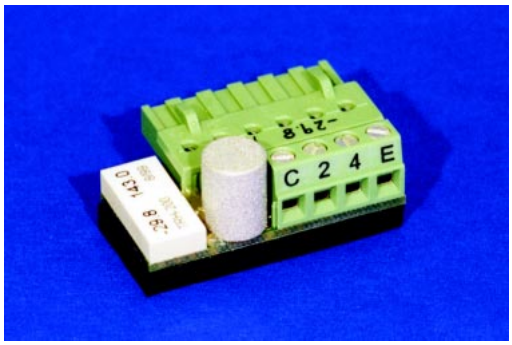
Light Sensor

Connects directly to any Pocket Logger channel. Wide dynamic range. Low cost. 0.3” dia., 2.5” length, integral shielded cable.

Operating Temp:	-30 to 70°C (-22 to 158°F)	
Physical:	Thermoplastic lens and housing.	
Part No:	LS100-4FT	(4 ft / 1.2 m cable)
	LS100-15FT	(15 ft / 4.5 m cable)

Relative Humidity & Temperature Module

Plugs into Pocket Logger, replacing the detachable terminal block. Uses two channels, one for temperature, and one for humidity / wet bulb / dew point. Same specifications as probe on left except for

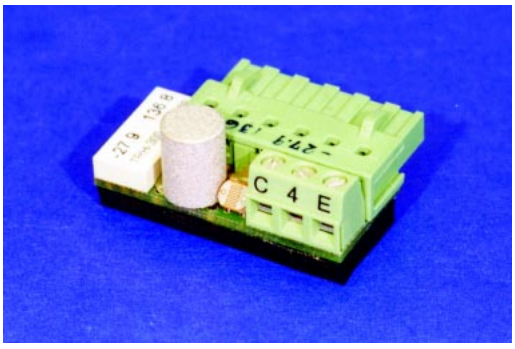


temperature and humidity range (see below). Two channels are available for other PACE sensors, 0-5 vdc or resistive signals.

Operating Temp:	-40 to 60°C (-40 to 140°F)
Humidity Range:	0-90% R.H.
Size:	Adds 0.36” (9 mm) to Pocket Logger’s length
Part No:	TRH-200

Humidity, Light & Temperature Module

Same as module above, but includes built-in light sensor for logging light levels. Channel 4 is available for a PACE sensor, 0-5vdc or resistive signal.



Operating temp:	-30 to 60°C (-22 to 140°C)
Humidity Range:	0-90% R.H.
Size:	Adds 0.36” (9 mm) to Pocket Logger’s length.
Part No:	TRH-300

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Pressure Sensors

- **Connect to any Pocket Logger input**
- **No external power required**
- **Long term stability**
- **Proven reliability**

Series P1000

For high and low side Refrigeration and Air Conditioning Systems, Chilled Water, Hot Water, Air, Gas, Oil and Steam Pressure.

Pressure Ranges	0-25 psig, Vac-120 psig, Vac-600 psig
	Additional models are available for 0-1000, 0-2500, 0-5000 and 0-10,000 psig. Contact PACE for details.
Accuracy:	±0.25% F.S.
Combined Repeatability, Linearity and Hysteresis:	±0.25% F.S.
Temperature sensitivity:	±0.06%/°C
Operating Temperature:	-40°C to 90°C (-40 to 194°F)
Proof Pressure	2X F.S. pressure
Burst Pressure:	3X F.S. pressure
Physical:	NEMA 4X housing; 8FT leads.
Media Compatibility:	Any media compatibile with 316L Stainless Steel and Hastelloy C276. No O-rings or seals.
Pressure port:	1/4" NPT Female
Size:	1.18" dia. x 3.85" length (30 mm dia. x 98 mm length)

Part No:	P1000-25	(0-25 psig)
	P1000-120	(VAC-120 psig)
	P1000-600	(VAC-600 psig)

Series P300

For indoor air applications including Lab/Clean Room Pressurization, Filter Differential Pressure, Fan Static Pressure, Absolute Pressure and Barometric Pressure.

Pressure ranges:	Inch H2O Differential: ±1, ±5, ±10; Psi Gauge: 0-1, 0-5, 0-15, 0-30 Psi Absolute: 0-15, 0-30
Combined repeatability, linearity and hysteresis:	±0.25% max (in. H2O ranges) ±0.5% max (psi ranges)
Unit to unit interchangeability:	±2.5% of F.S.
Temperature sensitivity:	Less than 1% F.S.O.
Physical:	Molded thermoplastic housing, three color-coded 12" (0.3 m) leads, plastic fittings for 3/16" I.D. tubing.
Proof / Burst Pressure:	±1 in. H2O model: 100x / 200x F.S. ±5 in. H2O model: 30x / 60x F.S. ±10 in. H2O model: 15x / 30x F.S. Psig and Psia models: 3x / 5x F.S.
Operating Temperature:	-25 to 65°C (-13 to 149°F)
Weight:	1.1 oz. (31 grams)
Overall Size:	1.3" x 1.5" x 2.25" (33 mm x 38 mm x 57 mm)
Part No:	P300 -* *specify range, and add -G for gauge, -D for differential and -A for absolute. *Absolute available only for 0-15 and 0-30 psi models.*

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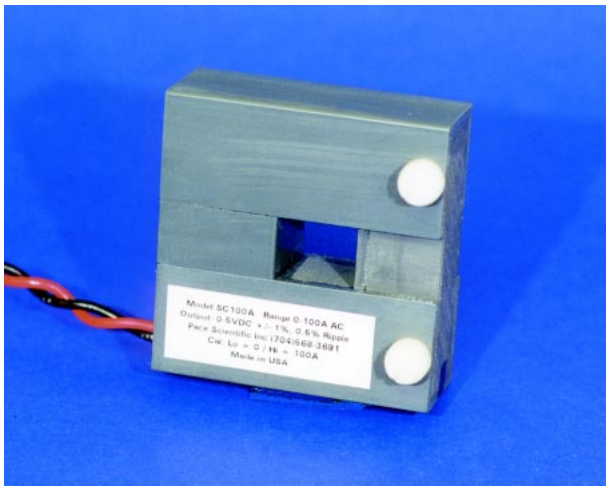
AC Current Sensors

- **Connect to any Pocket Logger input**
- **Monitor motors, pumps, or any AC load**
- **Wide range - Usable below 1% of full scale**
- **Split Core design - easy to install**
- **No exposed metal parts**
- **Self powered**



Input Current:	AC current, single phase 50/60Hz, load power factor 0.5 to 1.0 lead or lag.
Accuracy:	±2.0% of reading from 2.5% to 100% of full scale. ±4.0% of reading at 1.0% of full scale.
Bandwidth:	10 - 1000Hz (within ±3db)
Temperature effect:	±0.05% from -20 to 85°C (-4 to 185°F).
Response Time:	250 ms. (input from 10% to 90% of F. S.)
Ripple:	0.5%
Voltage Rating:	600 VAC. Tested with full wave 10 kV impulse for 60 seconds.
Overload:	1.6x full scale (continuous).
Surge:	3x full scale.
Lead Wires:	8 ft twisted Black / Red per UL1015.
Size:	1.25" overall width. Additional dimensions below.

Part No.	Range	Window	Length	Depth
SC100A	0-100 amp ac	0.5” square	2.6”	2.5”
SC200A	0-200 amp ac	1.0” square	3.0”	2.9”
SC500A	0-500 amp ac	2.0” square	4.0”	3.9”
SC1500A	0-1500 amp ac	2.5” square	4.8”	4.7”

AC Voltage Sensors

- **Connect to any Pocket Logger input**
- **Use SV300 model for 24 / 120/ 240 vac circuits**
- **Use SV600 model for 120 / 240 / 480 vac circuits**
- **Rugged DIN mount case**
- **Self-powered**

AC Voltage range:	0-300, 0-600
Frequency Range:	48 to 65Hz
Voltage Overload:	Full scale rating
Response:	400 milliseconds
Accuracy @ 60Hz:	±1.0% of F.S. (Includes effects of linearity from 10% to 100% F.S.)
Temperature effect:	(-20°C to 65°C): ±1.0%
Weight:	SV300: 4 oz., SV600: 10 oz.
Dielectric Test	(input/output): 1500 VAC
Burden:	2.0 VA
Size:	1.5"H x 3.5"W x 2"D

External potential transformer included with SV600; External transformer size: 1.6"H x 2.8"W x 1.5"D.

Part No:	SV300	(0-300 VAC)
	SV600	(0-600 VAC)

IMPORTANT - AC Voltage Sensors must be mounted and wired in a box, panel or suitable enclosure.

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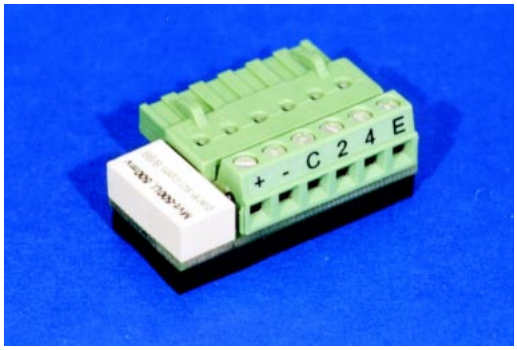
Thermocouple / Millivolt Modules



CE

Five Millivolt plug-in modules are available, each with a different millivolt range. Three of the modules (Mvt-11b, Mvt-22b, Mvt-50u) also accept a Thermocouple (Type J, K, N, R, S, T, B, C or E). A built-in, precision thermistor provides ambient temperature readings and for thermocouples, cold junction compensation.

A Millivolt module configures a Pocket Logger as follows: Channel 1: Ambient temperature. Channel 3: Millivolt signal (or thermocouple). Channels 2 and 4: 'Standard' channels for any Pace sensors, or 0-5 vdc or resistive signals.

Operating temperature: -40°C to 65°C (-40°F to 149°C)
Size: Adds 0.35" (9 mm) to XR440's length, no change to XR440's height and width.
Thermistor Sensor: ±0.1°C interchangeability, 0-70°C
Millivolt input type: Single ended, (-) terminal internally connected to dc ground.
Millivolt input impedance: Greater than 10 Megohm.

Individual Specifications					
Model:	**Mvt-11b**	**Mvt-22b**	**Mvt-50u**	**Mvt-107b**	**Mvt-500u**
Range:	±11 mv	±22 mv	0-50 mv	±107 mv	0-500 mv
Resolution (12 bit):	12 µV	24 µV	12 µV	120 µV	120 µV
Input Offset:	200 µV max.	200 µV max.	5 µV max.	200 µV max.	5 µV max.
Input Offset Drift:	2 µV/°C max.	2 µV/°C max.	0.05 µV/°C max.	2 µV/°C max.	0.05 µV/°C max.
Thermo-couple	YES	YES	YES	NO	NO
System Accuracy	0.8% of F.S. (max)	0.8% of F.S. (max)	0.4% of F.S. (max)	0.8% of F.S. (max)	0.4% of F.S. (max)

Thermocouple Specifications

for Mvt-11b, Mvt-22b and Mvt-50u*

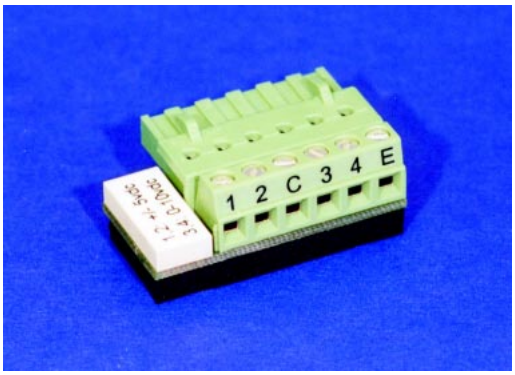
Maximum Temperature			
Type	**Mvt-11b**	**Mvt-22b**	**Mvt-50u***
J	200°C (392°F)	400°C (752°F)	760°C (1400°F)
K	270°C (518°F)	530°C (986°F)	1220°C (2228°F)
N	340°C (644°F)	630°C (1166°F)	1300°C (2372°F)
R	1030°C (1886°F)	1760°C (3200°F)	1760°C (3200°F)
S	1120°C (2048°F)	1760°C (3200°F)	1760°C (3200°F)
T	230°C (446°F)	400°C (752°F)	350°C (662°F)
B	1570°C (2858°F)	1820°C (3308°F)	1820°C (3308°F)
C	620°C (1148°F)	1210°C (2210°F)	2320°C (4208°F)
E	160°C (320°F)	310°C (590°F)	660°C (1220°F)
Resolution (12 bit mode, approximate)			
Type	**Mvt-11b**	**Mvt-22b**	**Mvt-50u**
J, T	0.2°C (0.4°F)	0.4°C (0.7°F)	0.2°C (0.4°F)
K, N	0.3°C (0.5°F)	0.6°C (1.1°F)	0.3°C (0.5°F)
R	0.8°C (1.4°F)	1.6°C (2.9°F)	0.8°C (1.4°F)
S, B	1.0°C (1.8°F)	2.0°C (3.6°F)	1.0°C (1.8°F)
C	0.6°C (1.1°F)	1.2°C (2.2°F)	0.6°C (1.1°F)
E	0.15°C (0.3°F)	0.3°C (0.5°F)	0.15°C (0.3°F)
Minimum Temperature			
Type	**Mvt-11b, Mvt-22b, Mvt-50u***		
J	-130°C (-202°F)	Minimum Temperature for Type R, S, B, and C is 0°C (32°F)	
K, N	-50°C (-58°F)		
T	-200°C (-328°F)		
E	-100°C (-148°F)		

***Mvt-50u Limitation:** If you use the Mvt-50u with a thermocouple, it must be set (in Pocket Logger Software) for either high or low (cold) temperature. When set for high temperatures, the lowest readable temperature is the ambient temperature of the Mvt Module. When set for low temperatures, the highest readable temperature is the ambient temperature of the Mvt Module.
The Mvt-11b and Mvt-22b do not have this limitation.

Part Numbers: Mvt-11b, Mvt-22b, Mvt-50u, Mvt-107b, Mvt-500u (5 different models)

Input Scaling Module

- **Five dc voltage input ranges available**
- **Many possible configurations**



CE

A plug-in miniature input scaler and terminal block for use in place of the Pocket Logger's detachable terminal block. Enables the Pocket Logger to accept additional input ranges (see table below).

INPUT	DASH NUMBER
+/- 5 vdc	-5v
0 - 10 vdc	-10v
0 - 20 vdc	-20v
0 - 30 vdc	-30v
0 - 60 vdc	-60v
4 - 20 ma	-20m
'Standard' input (for all Pace sensors, 0-5 vdc and resistance)	-S

Module scaling is fixed at the factory and must be specified when ordering. A channel specified as '-S' is a 'Standard' Pocket Logger input for Pace sensors, 0-5vdc or resistive signals.

Input impedance: All vdc input ranges: 100k ohms.

Size: Adds 0.36" (9 mm) to Pocket Logger's length.

Part No: ISM-x-x-x-x*

*Substitute a dash number from the table above for each channel (1-2-3-4). For example, ISM-5v-5v-S-S specifies an Input Scaling Module with +/-5vdc inputs for channels 1 and 2 and 'Standard' inputs for channels 3 and 4.

RTD Temperature Sensor

- **Higher Temperature Range than PT9xx Series**
- **Connects directly to XR440 Pocket Logger**
- **Low Mass for Fast Response**

[Sorry - picture will appear in next update.]

An RTD Temperature Sensor consisting of a thin-film platinum element encased in a laminated composition of Kapton, Silicon Rubber and Mylar. This sensor can operate at continuous temperatures of up to 200 deg. C. A maximum of four of these sensors may be connected to one XR440.

Please Note: Standard RTD Temperature Sensors with resistances of 100 to 1000 ohms will not work with the Pocket Logger.

Temperature Range: -50 to 200 deg. C (-58 to 392 deg. F).
Resistance: 10,000 ohms ±0.12% at 0 deg. C.
Resistance Tolerance: ±0.12% at 0 deg. C. (conforms to IEC 751 Class B).
Total System Accuracy:[1] ±1 deg. C at 0 deg. C.
±1.5 deg. C at 100 deg. C.
±2 deg. C at 200 deg. C.
Resolution:[1] Better than 0.4 deg. C over entire range.
Interchangeability:[1] ±0.3 deg. C at 0 deg. C.
Leads: Teflon insulated AWG 26, 40" length.
Size: 0.2" x 0.6" x 0.08" max.
5mm x 15mm x 2mm max.
Part No: PT510

[1]Assumes using an XR440 set for 12bit resolution.

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M31 Multiplexer

A versatile, miniature communication module for networking multiple Pocket Loggers. Includes connector jacks for three Pocket Loggers and one jack for a PC or modem. No external power is required.

With one M31, up to three Pocket Loggers may be networked together. Up to 255 Pocket Loggers can be networked using additional M31 Multiplexers. Each additional M31 added to the network supports two additional Pocket Loggers. Free Pocket Logger Software (included with each order) provides full support for network communication.

The M31 is powered by a long-life lithium cell. Estimated battery life is more than 3 years under average use (3 full memory uploads per day). When communicating with modems, the M31 can link multiple Pocket Loggers at a remote site to a single modem.

Each Pocket Logger connected to an M31 requires an M31 Cable (see below).

Size: 2.2 x 2.9 x 0.7" (56 x 74 x 18 mm)
Part No: M31

Communication Cables

IC209 Cable: Connects Pocket Logger (or M31) to 9-pin Com port of PC. 5 ft (1.5 m) length. **(Required)**
Part No: IC209

Modem Cable: Connects Pocket Logger to a modem For modem with a 25 pin serial port. 3 ft (0.9 m) length.
Part No: IC211

M31 Cable: For M31 Multiplexer. Connects Pocket Logger to M31, or M31 to next M31. 5 ft (1.5 m) length.
Part No: ICM-5FT

Extension Cable: Extends IC209, IC211, or ICM cable by 12 ft (3.6 m)
Part No: ICE-12FT

Pulse Module

Use to log data from kWh transducer, gas meter, or tipping-bucket rain gage. Counts pulses from reed-relay or switch closure. Connects directly to channel 4 of Pocket Logger. Internal lithium battery powers module for 10 years.

Size: 2.3" x 0.85" x 1.5" (58 x 22 x 38 mm)
Maximum pulse rate: 5 per second
Minimum closure time: 30 milliseconds
Physical: Molded thermoplastic housing with four color-coded 12" (0.3m) leads.
Part No: PM-1

Weatherproof Case

Protects the Pocket Logger in outdoor or hostile environments. Rugged molded case withstands all weather conditions. Features a hinged cover, continuous neoprene o-ring seal, quick release latches, customizable foam interior and a fold-up carrying handle. Six feed-through cable glands accept cable diameters between 0.078" and 0.197" (2-5mm). Can be padlocked for security.
Overall Size: 8.2" x 6.5" x 3.5" deep (208 x 165 x 90 mm).
Weight: 22 oz. (607 grams)
Part No: EC506

Optional captive interface cable:
Cable is permanently routed through one cable gland on case. Allows data transfers to PC without opening cover. Cable end has a water-tight cap. Mates with IC209 Interface Cable.
Part No: EC506-IC (enclosure with cable)

Size:	4.70" x 2.40" x .93"; (120 x 61 x 24 mm).
Weight (with battery):	6 ounces; 156 grams.
Case material:	Impact resistant ABS plastic.
Operating limits:	-40 to 60°C (-40 to 140°F). 5-90% R.H. (non-condensing).
Clock accuracy:	+/-2 min per month (-10 to 50°C).
Battery:	9 volt (user replaceable).
Battery life:	Est. 2-3 years of continuous operation; battery voltage displays on PC.
Data Retention:	Over 200 years with no power.
Data rate:	1200-19,200 baud, selectable on PC.
Number of channels:	Four.
Starting modes: Three:	Start after download, Start at pre-set time and date, Start on trigger.[1]
Running modes: Three:	Run continuous (memory wraps around), Stop when memory is full, Stop on trigger.[1]
Sampling modes: Three:	Single point, Average (accumulate readings every 2 secs; compute and store average value), or Pulse Counting (maximum pulses per sample interval: 8 bit: 255, 10 bit: 1023, 12 bit: 4095).[2]
Sampling rates: Twenty:	From 2 secs to 12 hours. Plus 8 fast log rates from 200 Hz to 1 Hz with reduced functionality.[3]
Real time display:	Channel readings updated every 2 secs on PC; can be active while recording.
Input termination:	Removable screw-type terminal block.
Input impedance:	Greater than 5 Megohm (when sampling).
Input protection:	Over/under voltage, 40amps peak 8/20 us

MEASUREMENT RESOLUTION IS USER SELECTABLE FOR 8, 10 OR 12 BITS

8 BIT RESOLUTION

Memory capacity:	32,256 readings (129,024 with -M option)
Temperature accuracy:[4] (logger + probe)	±0.55°C from 0 to 40°C. *(±1°F from 32 to 104°F).* ±1°C from -25 to 75°C. *(±1.8°F from -13 to 167°F).*
Voltage input accuracy:	±0.65% of full scale.
Resolution:	0.4°C from 0 to 40°C. 1°C or better from -25 to 75°C. 2°C or better from -45 to 100°C. 0.4% of full scale.

10 BIT RESOLUTION

Memory capacity:	25,800 readings (103,200 with -M option)
Temperature accuracy:[4] (logger + probe)	±0.22°C from 0 to 40°C. *(±0.4°F from 32 to 104°F).* ±0.5°C from -25 to 85°C. *(±0.9°F from -13 to 185°F).*
Voltage input accuracy:	±0.32% of full scale.
Resolution:	0.1°C from 0 to 40°C. 0.25°C or better from -25 to 75°C. 0.5°C or better from -45 to 100°C. 0.1% of full scale.

12 BIT RESOLUTION

Memory capacity:	21,504 readings (86,016 with -M option)
Temperature accuracy:[4] (logger + probe)	±0.15°C from 0 to 40°C. *(±0.27°F from 32 to 104°F).* ±0.3°C from -25 to 85°C. *(±0.55°F from -13 to 185°F).*
Voltage input accuracy:	±0.25% of full scale.
Resolution:	0.025°C from 0 to 40°C. 0.063°C or better from -25 to 75°C. 0.125°C or better from -45 to 100°C. 0.025% of full scale.

Available Sensors

Over 25 direct-connect sensors are available for the XR440 including Temperature, Pressure, Light, Humidity/Dew Point, AC Current and AC Voltage. Sensors may be mixed and matched in any combination. See Accessories for details.

Input Ranges

Inputs auto-configure for sensor or input range selected in software and include 0-5vdc, 2 wire resistance (30k ohm midpoint), and 3 wire resistance (minimum 2k ohm). Plug-in modules are available for millivolt inputs, +/-5vdc, 0-10, 0-20, 0-30, 0-60vdc and 4-20 ma.

Approvals

The XR440 Pocket Logger is CE approved to EN50081-1 (RF emissions) and EN50082-1 (ESD and RF immunity).

Warranty

The XR440 Pocket Logger is backed by a 3 year limited warranty. Accessories are backed by a 1 year limited warranty.

NOTES

[1] Triggering requires a switch, temperature probe or 2 wire resistance on channel 1. Channel 1 may be set 'OFF' while triggering to maximize memory capacity of 'ON' channels.

[2] Pulse counting requires PM-1 Pulse Module and is available only on channel 4.

[3] Communication with PC is not available while Fast Logging (1-200Hz) is active.

[4] Assumes use of Pace PT900 series temperature probes.

Specifications subject to change without notice.

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Pace Scientific, Inc.
542-6 Williamson Road, Mooresville NC 28117 USA Tel: 704-799-0688 Fax: 704-799-0177 Website: www.pace-sci.com

Pocket Logger™ Price List

Pocket Logger: XR440 (logs up to 32,256 readings) ..... $499.
XR440-M (logs up to 129,024 readings) .... $599.

Each Pocket Logger includes battery, terminal block and Certificate of Validation traceable to NIST. Pocket Logger Software is included with each order.

Magnets: The Pocket Logger ships with two magnetic pads affixed to its underside to simplify mounting. To specify rubber pads in place of magnets, add -RP to part number.

Interface Cable, 5ft **(required)**	IC209	$20.
Modem cable, 3 ft	IC211	24.
Extension cable, 12 ft	ICE-12ft	10.
Temperature Probes	PT907	20.
	PT933	40.
	PT940	46.
	PT916	44.
1/8 NPT fitting for PT916	CF-916-1/8	12.
	PT510 (10k ohm RTD)	36.

Temperature / Relative Humidity

Probe, 1 ft leads	TRH-100	205.
Probe, 10 ft cable	TRH-100-10FT	225.
Probe, 20 ft cable	TRH-100-20FT	233.
Module, Temp / RH	TRH-200	195.
Module, Temp / RH / Light	TRH-300	205.

Thermocouple / Millivolt Modules

Mvt-x* (any model) ..... 130.

**See page 7 for available part numbers.*

AC Current Sensors	SC100A	95.
	SC200A	95.
	SC500A	180.
	SC1500A	195.
AC Voltage Sensors	SV300	150.
	SV600	185.
Input Scaling Module	ISM-x-x-x-x*	70.

**See page 8 to specify input configuration of ISM.*

Light Sensor	LS100-4FT	25.
	LS100-15FT	33.
Pressure Sensors	P1000-x*	350.
**specify range (see page 5)*	P300+/-1 inch H2O	210.
	P300+/-5 inch H2O.	200.
	P300+/-10 inch H2O	190.
	P300-x* (all other P300)	160.

P300 Psi models: *Add -G, or -A to part number to specify Gauge, or Absolute model.*

Multiplexer	M31	185.
M31 cable, 5 ft	ICM-5FT	7.
Pulse Module	PM-1	115.
Weatherproof Case	EC506	68.
	EC506-IC	88.

Spare Parts

Terminal Block	TB-P6	8.
Pocket Logger Battery	U9VL	10.

SUPPORT **Free technical support** is available by phone during business hours. Or email your questions to: support@pace-sci.com

Ordering

BY PHONE (704) 799-0688 Business hours: Mon-Fri, 8 am to 5 pm EST.

BY FAX (704) 799-0177

BY E-MAIL sales@pace-sci.com

BY MAIL Mail orders to: Pace Scientific / Sales Dept
542-6 Williamson Road
Mooresville, NC 28117

PAYMENT We accept payment by check, VISA, MasterCard or C.O.D. Corporate purchase orders accepted upon credit approval. North Carolina residents must include applicable sales tax.

WARRANTY The XR440 Pocket Logger is backed by a 3 year limited warranty. All other products are backed by a 1 year limited warranty. Products that are damaged or modified are not covered.

Pace Scientific's sole obligation for products that prove defective will be replacement, repair, or refund, at our discretion, for products returned within the warranty period. In no event shall Pace Scientific's liability exceed the buyer's purchase price.

RETURNS Returns must be made within 30 days after delivery. We do not accept returns shipped to us C.O.D. Special order or damaged items are not returnable. Shipping and C.O.D. charges are not refundable.

EXPORT ORDERS Pace Scientific welcomes international orders. Prepayment in U.S. funds is required. You may pay by MasterCard, VISA, wire transfer or check drawn on a U.S. bank. Contact us for shipping charges and wire transfer information.

Prices subject to change without notice. Revised: June 30, 2001

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