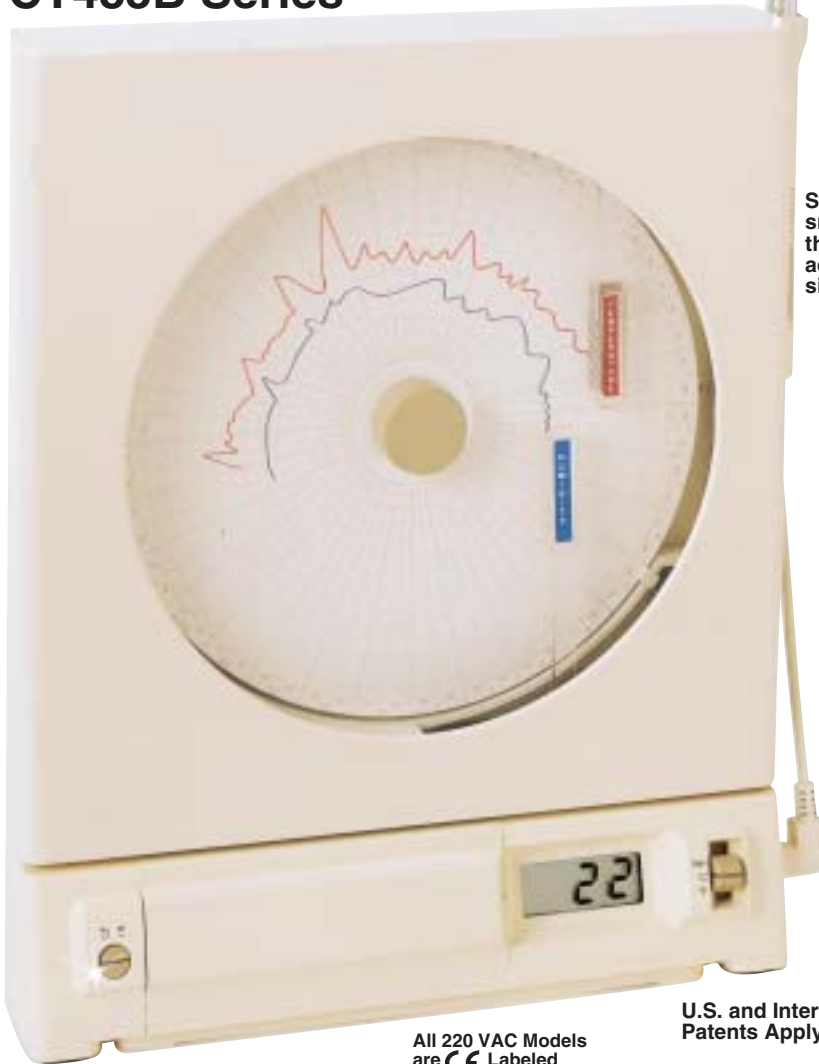


# MICROPROCESSOR-BASED TEMPERATURE/RELATIVE HUMIDITY RECORDER

## CT485B Series



Shown  
smaller  
than  
actual  
size

All 220 VAC Models  
are  Labeled

U.S. and International  
Patents Apply.

The new Model CT485B completely self-contained temperature/ relative humidity recorder is microprocessor based to accurately measure, indicate and record temperature and relative humidity.

This rugged unit comes standard with alarms. They contain a single, integral relay contact which closes in response to an alarm condition. Simultaneous high and low alarm points for temperature and relative humidity are user selectable. When the current conditions exceed any of the preset values, the 2 Amp relay contact closes and an audible alarm sounds.

Flipping open a hinged front panel door permits access to the power switch and controlling functions of

the recorder. The door comes with a locking mechanism. The user may select 1, 7 or 32 day operation, program the instrument to record in °C or °F, and access alarm and calibration controls or max/min functions.

A separate 3-position switch next to the digital display selects a °C, °F or %RH readout. The chart drive is stepper controlled for precision, and a unique magnetic retaining knob eliminates the possibility of paper tear.

Calibration of alarm models is digital, and a user may make calibration adjustments in the field using the convenient panel pushbuttons. An optional calibration

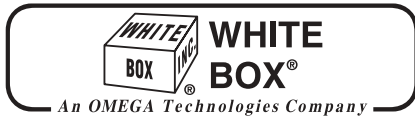
Basic Unit includes 120 double sided charts

- ✓ Available in Computer Room White or Charcoal Gray
- ✓ Versatile Remote Mounting Sensor
- ✓ Convenient Front Panel Programming
- ✓ 200 mm (8") Chart for 1, 7, or 32-Day Recording
- ✓ Fully Electronic Microprocessor Control
- ✓ Benchtop or Wall Mounted
- ✓ Alarm Contact Standard
- ✓ Sensors Not Recommended for Use in a Corrosive Environment
- ✓ Companion Pressure & pH Recorder Available

**Complete with  
120 Assorted Double-Sided  
Charts, 2 Sets of Pens,  
6' Remote Sensor Cable,  
Wall Mounting Kit,  
Cal-Lock Kit, Batteries,  
and ac Adaptor**

lockout cover prevents unauthorized changing of calibration codes. A stabilizing arm provides added stability for benchtop use. The arm conveniently rotates under the unit for wall mounting. Recessed rear mounting slots and a wall template enable easy wall mounting. A decorative cover for the stabilizing arm is supplied for wall mount use. A standard 110 Vac power adaptor is supplied for continuous long-term operation, along with four D-cell batteries for backup power or field use. Each unit includes 6 feet of cable for remotely mounting the sensor. A sensor holder clip is provided.

Units come standard with two chart light bulbs. When using the ac power adaptor, these bulbs provide easy viewing of the chart in dimly lit conditions. A switch is provided to allow the chart lights to be turned on or off.



## Specifications

**Measurement Inputs:** Temperature and humidity, with plug-in external sensor, removable for remote location, 6' extension cable included; 0.02 to 1.20 Vdc signal with voltage input adaptor

### Temperature

**Range:** -17 to 49°C (2 to 120°F)

**Accuracy:** ±1°C

**Sensor:** Solid state

**Response Time:** 5 minutes for 63% step change

**Display Resolution:** 1°C/1°F

### Humidity

**Range:** 2 to 98% RH

**Accuracy:** ±3% @25°C, between 20 and 90% of range (±5% below 20% and above 90% @25°C)

**Sensor:** resistive polymer. Not recommended for use in corrosive air environments

**Response Time:** 5 minutes for a 30 to 80% step change

**Display Resolution:** 1% RH

2½ digit LCD, 0.5" high; low battery

**Display Modes:** Front panel switchable between °C, °F and %RH for continuous digital display; max/min storage for both temperature and humidity or flashing to indicate alarm condition

### Electronics

**Type:** Microprocessor-controlled and linearized high and low peak hold for both temperature and humidity, re-initializes position at every chart change

### Chart

**Type:** 8" circular, linear radial divisions, double sided; 1, 7 and 32 days, °C and °F scales

### Chart Drive

**Type:** Stepper motor

**Ranges:** 1, 7 and 32 day, selectable

**Accuracy:** 1% of rotation

**Chart Hold Down:** magnetic hub lock

### Recording Pens

**Type:** Disposable fiber tip, red for temperature, blue for humidity

### Pen Drives

**Type:** Motorized linear screw drive

**Deadband:** 1°F, 1% RH

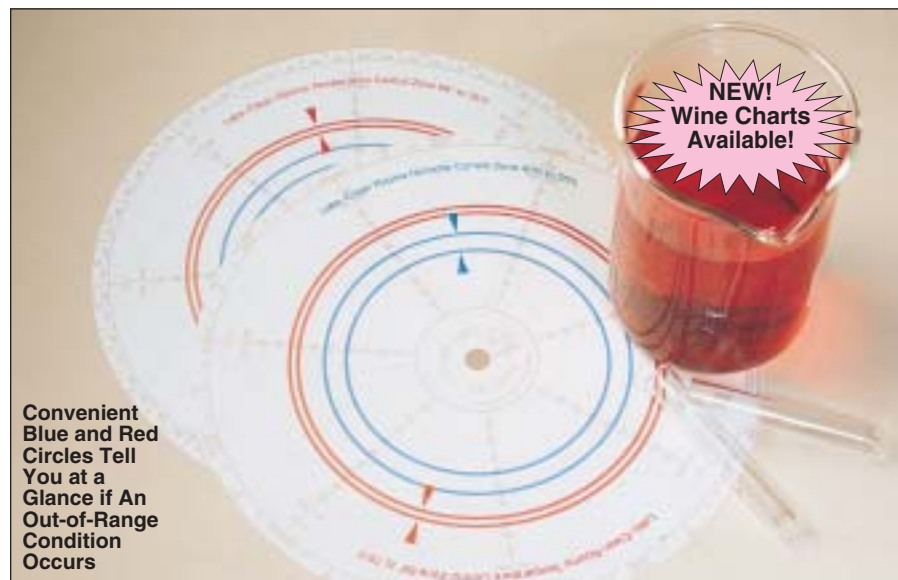
**Zero:** Automatic zero during chart change or power interruption

**Penlift:** Automatic on door opening; pens are door mounted and swing clear of the chart when door opens

**Pen Arms:** Clear plastic to allow full chart viewing



CE labeled 220Vac model shown with included Ferrite core noise suppressor (included on CE models)



Convenient Blue and Red Circles Tell You at a Glance if An Out-of-Range Condition Occurs

**Operating Conditions (Recorder)**

**Temperature:** 0 to 49°C (32 to 120°F)

**Humidity:** 0 to 90% RH, non-condensing

**Operating Conditions (Sensor Remote)**

(Sensors not recommended for use in a corrosive environment)

**Temperature:** -17 to 49°C (2 to 120°F)

**Humidity:** 0 to 98% RH

**Alarms**

**Alarms:** User-selectable for high or low temperature and humidity

**Audible Alarm:** Integral piezoelectric beeper

**Alarm Relay Contacts:** 1 Amp,

30 Vdc Normally open, single pole, single throw (SPST)

**Power (Recorder):** Four D cells (included) or 9Vdc/110, 50/60 Hz power adaptor (supplied); 220 Vac power adaptor supplied where applicable Battery Life: more than 1 month continuous operation in 32-day mode (average conditions)

**Power Requirements:** 300 mA "normal" during pen movement for battery (dc) power; 500 mA "normal" during pen movement for ac power using ac adaptor with chart lights on (**Note:** the light bulbs drain 200 mA of current)

**DC Power Jack Voltage:** 8.3 to 12.4 Vdc (nominal 9 Vdc), 1 Amp max.

**Mechanical**

**Dimensions:** 33.5 cm H x 27.1 cm W x 6.7 cm D mm (13<sup>1</sup>/<sub>16</sub>" x 10<sup>1</sup>/<sub>16</sub>" x 2<sup>5</sup>/<sub>16</sub>")

**Weight:** Approx. 7 lbs including batteries (3.2 Kg)

**Mounting:** "Keyhole" slots for wall mounting; foot cover for benchtop use

**Case:** Rugged ABS plastic

**Analog Voltage Input Adaptor**

**Input:** 20 mVdc to 1200 mVdc records as 2 to 120°F, (-17 to 49°C) input protection up to 20 Vdc or 10 Vac RMS

**Input Impedance:** 330 Kohms min.

**Input Connections:** Banana jacks, 19mm (0.75") spacing

**Cable Length:** 305 mm (12")

**Companion pH and Pressure Recorders for WHITE BOX®**

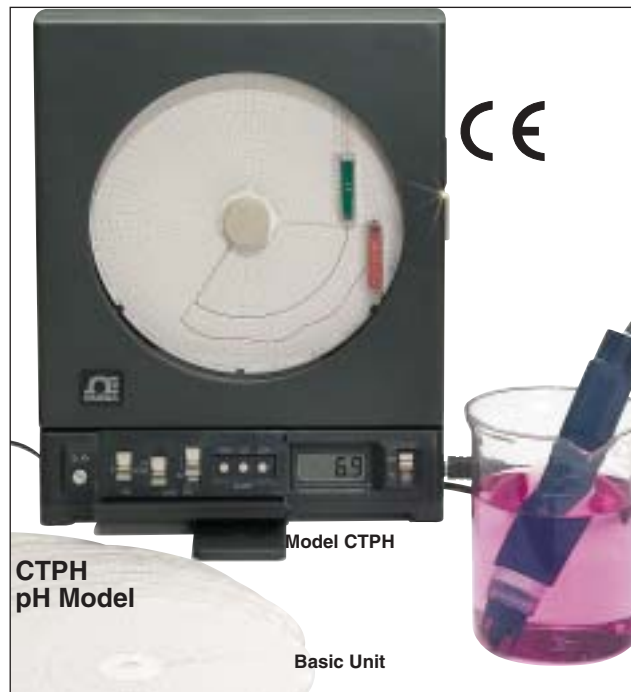


Temperature/Humidity Model

Model CT485B-110V-W-AL

D-111

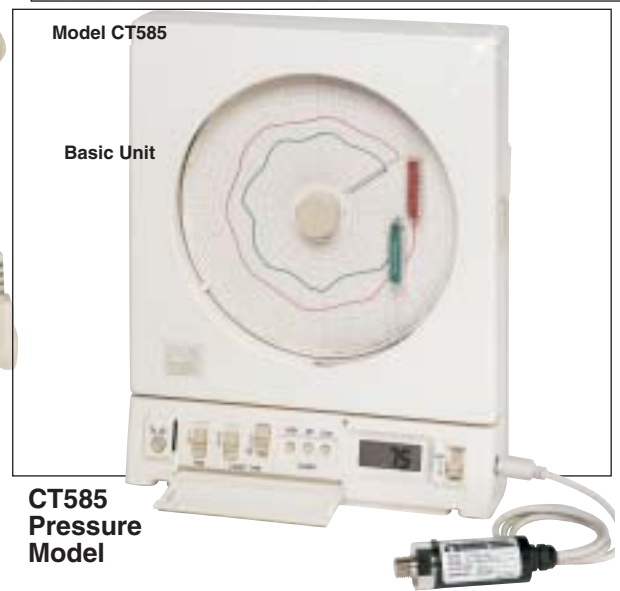
Available in Computer White and Gray



CTPH pH Model

Model CTPH

Basic Unit



Model CT585

Basic Unit

CT585 Pressure Model

# Microprocessor-Based Temperature/Relative Humidity Recorder



**MOST POPULAR  
MODELS HIGHLIGHTED!**

To Order (Specify Model Number)		
Model Number		Description
CT485B-110V-G-AL		Gray, 110 Vac, with alarms and relay contacts
CT485B-110V-W-AL		White, 110 Vac, with alarms and relay contacts
CT485B-220V-G-AL		Gray, 220 Vac, with alarms and relay contacts
CT485B-220V-W-AL		White, 220 Vac, with alarms and relay contacts

**Ordering Example:** CT485-220V-W-AL, CE labeled white recorder with alarms and relay contacts, 220 Vac. Comes with 120 double sided charts and complete Operator's Manual. Extra charts CT485-CWC, package of 100 charts, 7 days, °C (celsius) temperature measurements,



**NEW!  
Wine Charts  
Available!**

Shown smaller  
than actual size

## Specialty Paper (All double-sided, packages of 20 charts)

Model Number	Description
CT485-MW(*)	Museums/art galleries, 7 days (in °C or °F) 18.3 to 22.2 (65° to 72°F), 40 to 50% RH
CT485-MM(*)	Museums/art galleries, 32 days (in °C or °F) 18.3 to 22.2 (65° to 72°F), 40 to 50% RH
CT485-HW(*)	Hospitals, 7 days (in °C or °F) 20 to 23.3 (68° to 74°F), 40 to 50% RH
CT485-HM(*)	Hospitals, 32 days (in °C or °F) 20 to 23.3 (68° to 74°F), 40 to 50% RH
CT485-LW(*)	Lab, clean rooms, 7 days (in °C or °F) 20° to 23.9°C (68° to 75°F), 40 to 55% RH
CT485-LM(*)	Lab, clean rooms, 32 days (in °C or °F) 20° to 23.9°C (68° to 75°F), 40 to 55% RH
CT485-PW(*)	Computer rooms/offices, 7 days (in °C or °F) 18.3° to 23.9°C (65° to 75°F), 45 to 60% RH
CT485-PM(*)	Computer rooms/offices, 32 days (in °C or °F) 18.3° to 23.9°C (65° to 75°F), 45 to 60% RH
CT485-WMC	Wine storage 32 days, 10 to 15.6°C, 60 to 70% RH
CT485-WMF	Wine storage 32 days, 50 to 60°F, 60 to 70% RH

\*Insert C (for °C) or F (for °F)

**Ordering Example:** CT485-MWC specialty paper for museums and art galleries, 7 days, with °C (celsius) temperature measurements,

## Charts Standard Chart Paper (double-sided - available as single package of 100 or 6 packages of 100 charts)

Model No.	Description
CT485-CDF	100 Charts, 1 day am/pm, °F
CT485-CDC	100 Charts, 1 day am/pm, °C
CT485-C24F	100 Charts, 24 hour clock, °F
CT485-C24C	100 Charts, 24 hour clock, °C
CT485-CWF	100 Charts, 7 day, °F
CT485-CWC	100 Charts, 7 day, °C
CT485-CMF	100 Charts, 32 day, °F
CT485-CMC	100 Charts, 32 day, °C
CT485-CSP	120 Charts, 20 of each style
CT485-CDF-6	600 Charts, 1 day, °F
CT485-CDC-6	600 Charts, 1 day, °C
CT485-CWF-6	600 Charts, 7 day, °F
CT485-CWC-6	600 Charts, 7 day, °C
CT485-CMF-6	600 Charts, 32 day, °F
CT485-CMC-6	600 Charts, 32 day, °C

## Accessories

Model Number	Description
CT485-CABLE-6W	6 ft. (2 meter) remote sensor cable, white
CT485-CABLE-6G	6 ft. (2 meter) remote sensor cable, gray
CT485B-CAL-LABEL	Calibration lockout cover labels (sheet of 10)
CT485B-CLIP-KIT	Sensor clip kit
CT485-AMV-W	Analog voltage input adaptor (cable), white
CT485-AMV-G	Analog voltage input adaptor (cable), gray
CT485-PS	Pen set, red and blue, package of 1 each
CT485-PS-6	Pen set, red and blue, package of 6 each
CT485B-CAL-KIT	Calibration kit for 110V or 220V units
CAL-3-HU	NIST Traceable Calibration
CT485B-RP-W	White replacement probe
CT485B-RP-G	Gray replacement probe

**Note:** all charts are double sided.

**Ordering Example:** CT485-CWC package of 600 double sided charts, 7 days, with °C (celsius) temperature measurements,

INSTRUMENTATION





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