

# Microprocessor-Based Temperature/Relative Humidity Recorder CT485B Series

Basic Unit includes  
120 double sided charts



Shown smaller  
than actual size

**For additional  
features and  
models, please  
consult sales or  
visit [omega.co.uk](http://omega.co.uk)**



- ✓ Available in Computer Room White or Charcoal Grey
- ✓ Versatile Remote Mounting Sensor
- ✓ Convenient Front Panel Programming
- ✓ 200 mm Chart for 1, 7, or 32-Day Recording
- ✓ Fully Electronic Microprocessor Control
- ✓ Benchtop or Wall Mounted
- ✓ Alarm Contact Standard
- ✓ 1,2,3 Year Extended Warranty Comes with Extra Pens, Paper, Batteries
- ✓ Sensors Not Recommended for Use in a Corrosive Environment
- ✓ Companion Pressure and pH Recorder Available

Complete with 120 Assorted Double-Sided Charts, 2 Sets of Pens, 1.8 m Remote Sensor Cable, Wall Mounting Kit, Cal-Lock Kit, Batteries, and ac Adaptor

*Covered by U.S. and international patents and pending applications*

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 recording °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 lockout cover prevents unauthorised changing of calibration codes. A stabilising 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 stabilising arm is supplied for wall mount use. A standard 110 or 220 Vac (depending on model ordered) power adaptor is supplied for continuous long-term operation, along with four D-cell batteries for backup power or field use. Each unit includes 1.8 m 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.

*OMEGACARE<sup>SM</sup> extended warranty programme is available for this model. Ask your sales representative for full details when placing an order. OMEGACARE<sup>SM</sup> covers parts, labour and equipment loan unit.*

**Specifications**

**Measurement Inputs:** Temperature and humidity, with plug-in external sensor, removable for remote location, 2 m (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, backlit LCD

**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 2<sup>1</sup>/<sub>4</sub> digit LCD, backlit, 12.7 mm (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 linearised high and low peak hold for both temperature and humidity, re-initializes position at every chart change

**CHART**

**Type:** 203 mm (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

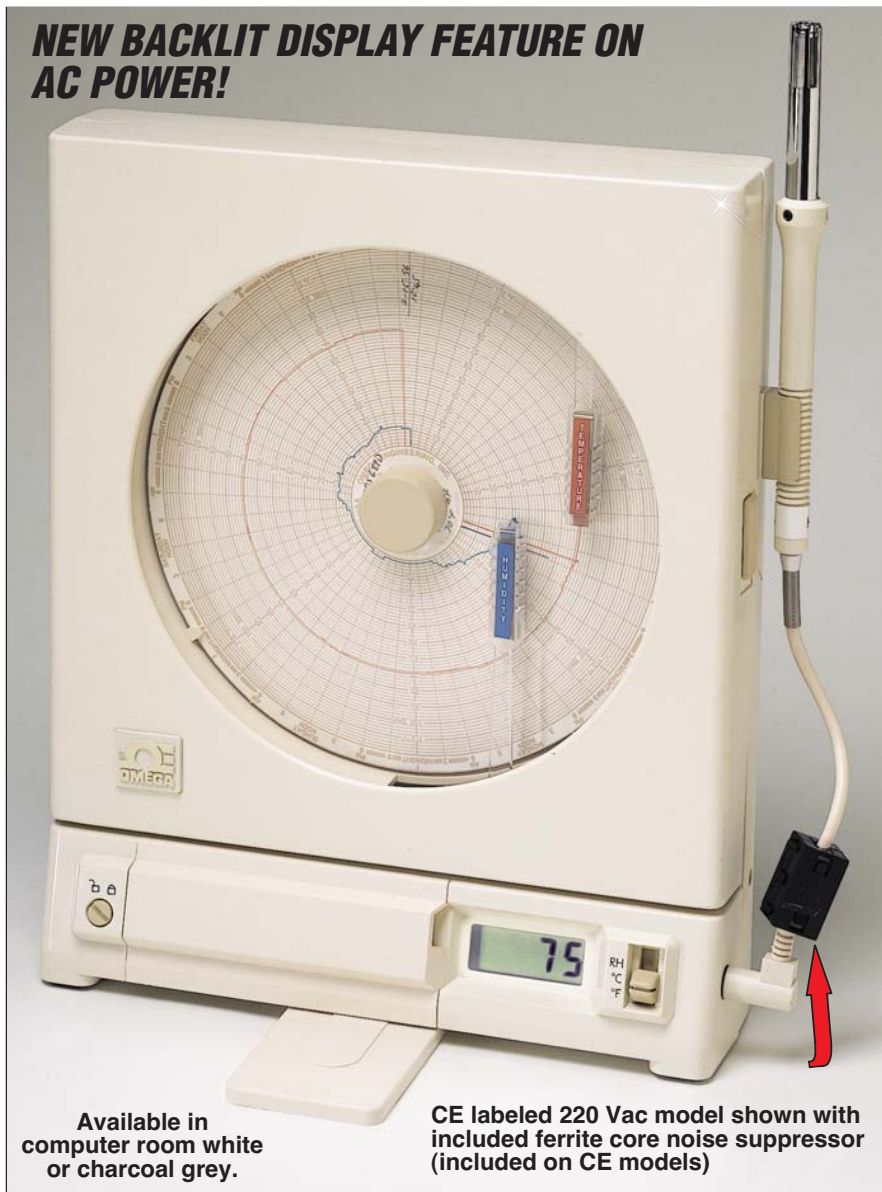
**RECORDING PENS**

**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

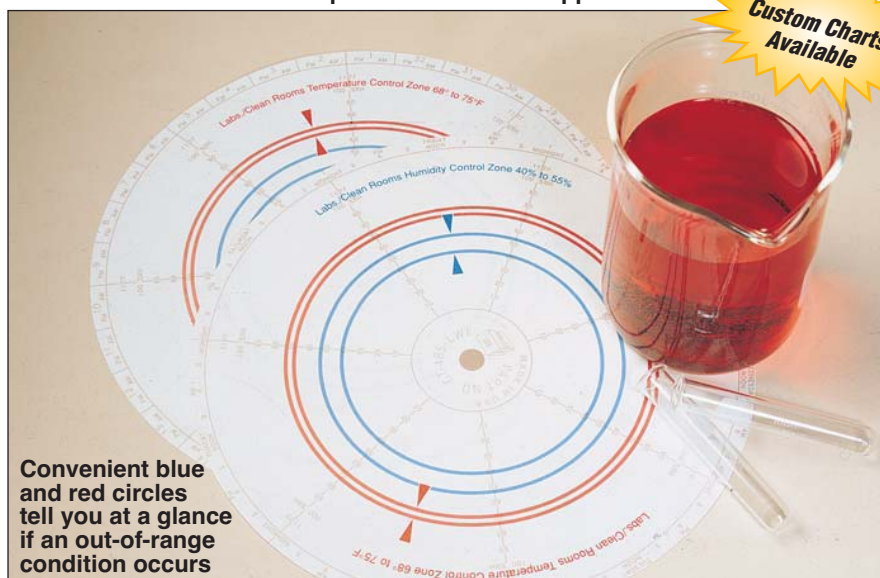
**NEW BACKLIT DISPLAY FEATURE ON AC POWER!**



Available in computer room white or charcoal grey.

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

**Specialty Charts for Museum/Art Gallery, Hospitals, Labs/Clean Rooms and Computer Room/Office Applications**



**Custom Charts Available**

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**

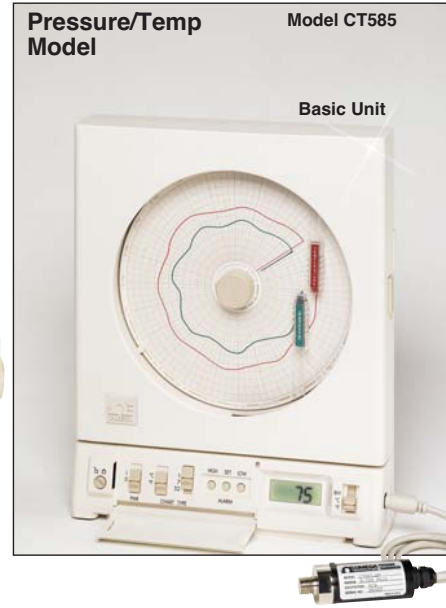
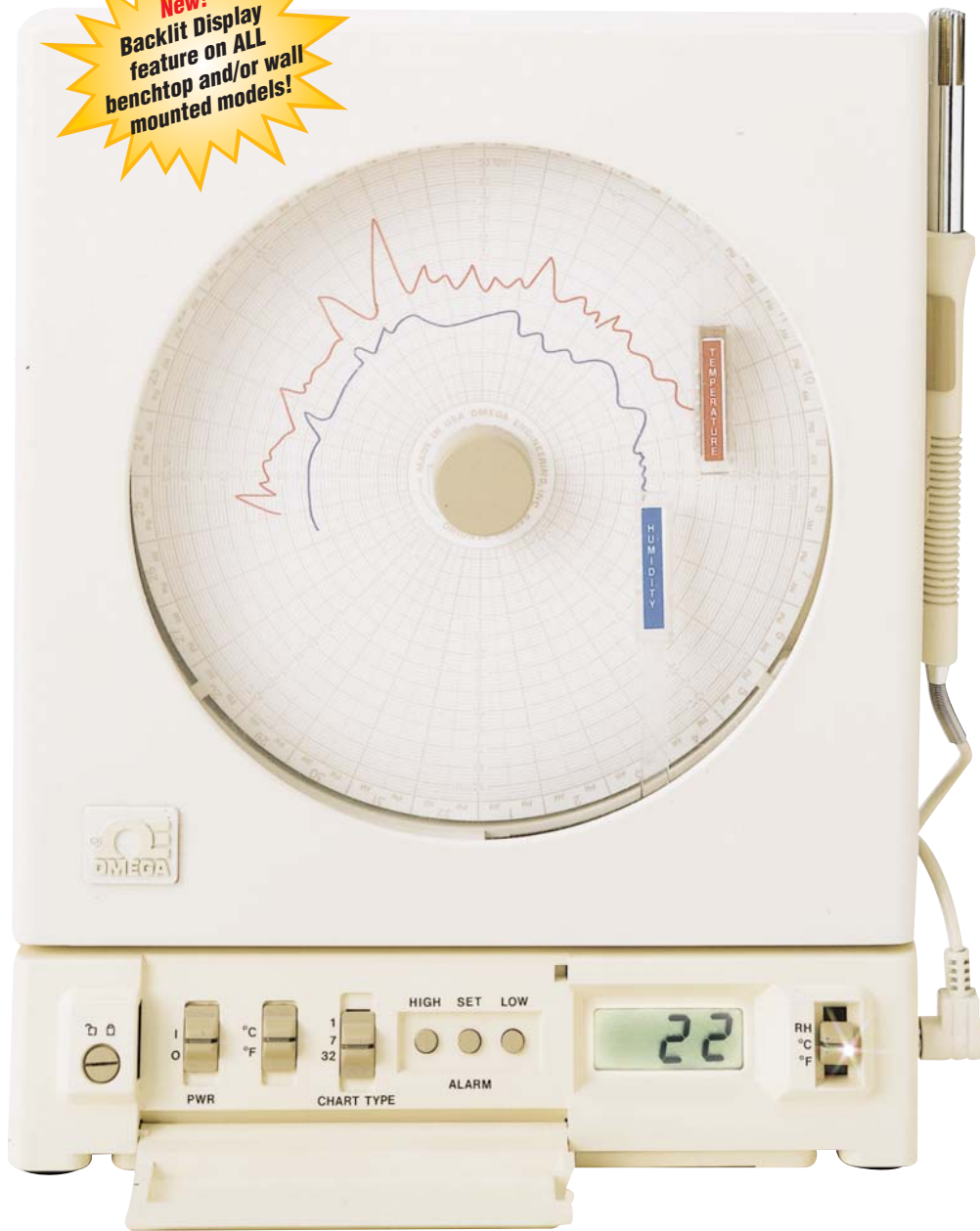
**Alarms:** User-selectable for high or low temperature and humidity  
**Audible Alarm:** Integral piezoelectric beeper  
**Alarm Relay Contacts:**  
 1 Amp, 30 Vdc normally open, single pole, single throw (SPST)

**Power (Recorder):** Four D cells batteries (included) and 9 Vdc/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 H x 27.1 W x 6.7 cm D (13<sup>3</sup>/<sub>16</sub> x 10<sup>11</sup>/<sub>16</sub> x 2<sup>5</sup>/<sub>16</sub>"")  
**Weight:** Approx. 3.2 kg (7 lb) including batteries  
**Mounting:** "Keyhole" slots for wall mounting; foot cover for benchtop use  
**Case:** Rugged ABS plastic  
**ANALOGUE VOLTAGE INPUT ADAPTOR**  
**Input:** 20 mVdc to 1200 mVdc records as -17 to 49°C, (2 to 120°F) input protection up to 20 Vdc or 10 Vac RMS  
**Input Impedance:** 330 Kohms min.  
**Input Connections:** Banana jacks, 19 mm (0.75") spacing  
**Cable Length:** 305 mm (12")

For Companion Recorders, Please see [omega.co.uk](http://omega.co.uk)

**New!**  
**Backlit Display**  
 feature on ALL  
 benchtop and/or wall  
 mounted models!

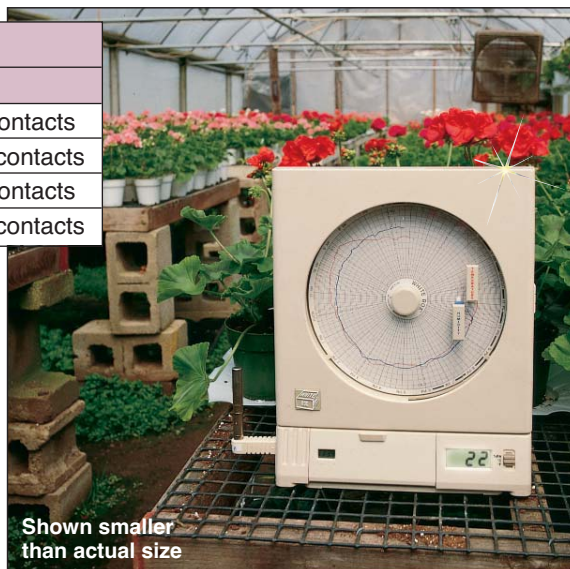


**ALL MODELS AVAILABLE FOR FAST DELIVERY!**

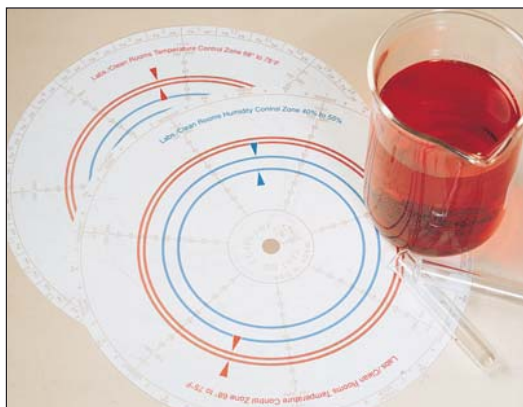
To Order (Specify Model Number)		
Model Number		Description
CT485B-220V-G-AL		Grey, 110 Vac, with alarms and relay contacts
CT485B-220V-W-AL		White, 110 Vac, with alarms and relay contacts
CT485B-110V-G-AL*		Grey, 220 Vac, with alarms and relay contacts
CT485B-110V-W-AL*		White, 220 Vac, with alarms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

\*110 Vac models are not CE compliant  
 Comes with complete operator's manual, batteries, ac adaptor, assorted charts, pen set, remote sensor cable, and wall mounting kit.  
 Ordering Example: CT485B-220V-W-AL, CE labeled white recorder with alarms and relay contacts, 220 V, with 120 double sided charts, and CT485-CWC, package of 100, 7 day, °C (celsius) temperature measurement charts

OCW-3 OMEGACARE<sup>SM</sup> extends standard 1-year warranty to a total of 4 years



Shown smaller than actual size



**Charts –Each Unit Includes:  
 120 Double-Sided Charts FREE!**  
 (20 each of 1-day, °F; 1-day, °C; 7-day, °F; 7-day, °C; 32-day, °F; 32-day °C).  
 Additional charts can be ordered below as 1 pack of 100 or 6 packs of 100

**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°C (65 to 72°F), 40 to 50% RH
CT485-HW(*)	Hospitals, 7 days (in °C or °F) 20 to 23.3°C (68 to 74°F), 40 to 50% RH
CT485-HM(*)	Hospitals, 32 days (in °C or °F) 20 to 23.3°C (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,

Model No.	Description
CT485-CDF	100 Charts, 1 day am/pm, °F
CT485-CDC	100 Charts, 1 day am/pm, °C
CT485-C24F	20 Charts, 24 hour clock, °F
CT485-C24C	20 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

Note: all charts are double sided.  
 Ordering Example: CT485-CWC-6 package of 600 double sided charts, 7 days, with °C (celsius) temperature measurements,

**Accessories**

Model Number	Description
CT485-CABLE-6W	2 m (6') remote sensor cable, white
CT485-CABLE-6G	2 m (6') remote sensor cable, grey
CT485B-CAL-LABEL	Calibration lockout cover labels (sheet of 10)
CT485B-CLIP-KIT	Sensor clip kit
CT485-AMV-W	Analogue voltage input adaptor (cable), white
CT485-AMV-G	Analogue voltage input adaptor (cable), grey
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
CAL-3-HU	Traceable Calibration Certificate
CT485B-RP-W	White replacement probe
CT485B-RP-G	Gray replacement probe

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