

## Honeywell 4500 Truline® Circular Chart Recorders

- 305 mm (12") Diameter Charts
- Recorder Alternately Displays Process Variable Values for All Channels in the Selected Engineering Units
- Operator Interface—Includes Clear, Brilliant Alphanumeric Displays
- All-Purpose Chart—Blank Chart Eliminates the Need for Ordering and Stocking Several Types of Charts
- Up to 4 Channels Monitor Process Variables from a Variety of Sensors
- Time/Date—Real-Time, Clock, Dates, Time of Printing (Hour, Minutes, Date, and Year)
- Control Output—Up to Two Versatile PID Digital Controllers
- Setpoint Ramp—Single Setpoint Ramp is User-Programmable
- Setpoint Rate—Lets You Define a Ramp Rate
- You Can Easily Set Up to Six (Optional) Integral "Soft" Alarms
- Two Totalizers—One or Two Optional Totalizers Available

**DR4500AR-1000-000-000-0**



Honeywell's Truline® recorder is a one- to four-channel, microprocessor-based, circular chart recorder. Its "one-pen" stylus printhead produces up to four analog traces and prints alphanumeric chart data on a blank heat-sensitive chart.

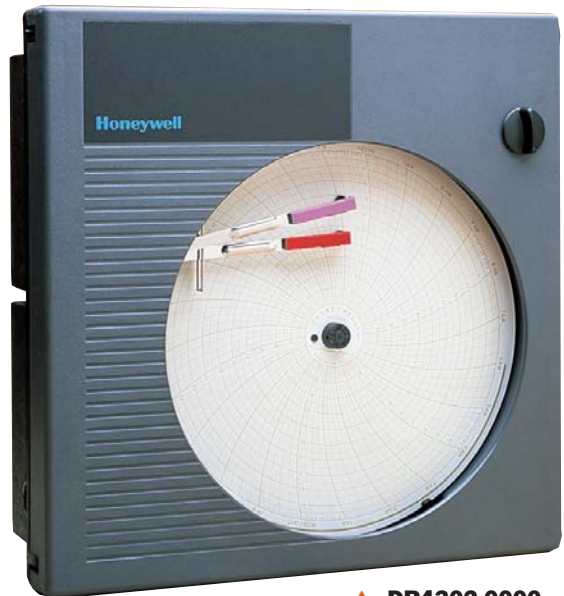
### Ordering Information

Order #	Mfg #	Description	Price
MPDR45AR-1000-000-000-0	DR45AR-1000-000-000-0	1-Channel, 12" Recorder with Display Universal Input UL/CSA (No Control/Alarming)	
MPDR45AR-1100-000-000-0	DR45AR-1100-000-000-0	2-Channel, 12" Recorder with Display Universal Input UL/CSA (No Control/Alarming)	

**NOTE:** A wide selection of options are available for this Honeywell product. Contact Transcat for help in selecting the option codes and features to meet your requirements.

## Honeywell 4300 Circular Chart Recorders

- Dependable, Pen Drawn Analog Traces on a 250 mm (10") Chart
- Ideal for Food Processing, Environmental Monitoring, Machine Monitoring, Flow, Water and Waste, Furnaces and Ovens, and Packaging Machines
- Match Any Application, From Basic Recording to Actually Doing the Process Control
- One- and Two-Pen Models Accept Inputs from Any One of a Variety of Sensors or Transmitters
- Variety of Options: One or Two Digital Controllers, Vacuum Fluorescent Display for Viewing the Process Variable or Configuration
- Over 200 Preprinted Charts Available
- Universal Inputs—Accepts 10 Thermocouple Types, RTDs, mA, mV, or Voltage Inputs
- User-Configurable—Allows You to Set Up or Alter Operating Parameters to Fit Your Requirements
- Optional Outputs—Choose from Alarm, On-Off Control, Limit Control, or Versatile PID Digital Controller
- Other Options Include: Control Outputs, Solid State External Control Relay Outputs, Auxiliary Output, Alarm Selection, ModBus™ Communications, and Ramp Soak Programming
- Integral Microprocessor-Based Single-Loop PID Controller for Each Pen



**DR4302-0000-G0100**

### Ordering Information

Order #	Mfg #	Description	Price
MPDR4301-0000-G0100-0	DR4301-0000-G0100-0	1-Pen Circular Chart, Universal Input, US/CSA (No Display/Control/Alarms)	
MPDR4302-0000-G0100	DR4302-0000-G0100	2-Pen Circular Chart, Universal Input, US/CSA (No Display/Control/Alarms)	

**NOTE:** A wide selection of options are available for this Honeywell product. Contact Transcat for help in selecting the option codes and features to meet your requirements.

## Eurotherm Chessell 392 Circular Chart Recorder

- 1 to 4 Universal Input Channels
- 40-Character Vacuum-Fluorescent Digital Display
- 1 or 2 Independent, Case-Mounted Single or Dual Output PID Controllers
- Simple On-Site Configuration Using Control Panel
- Math Functions

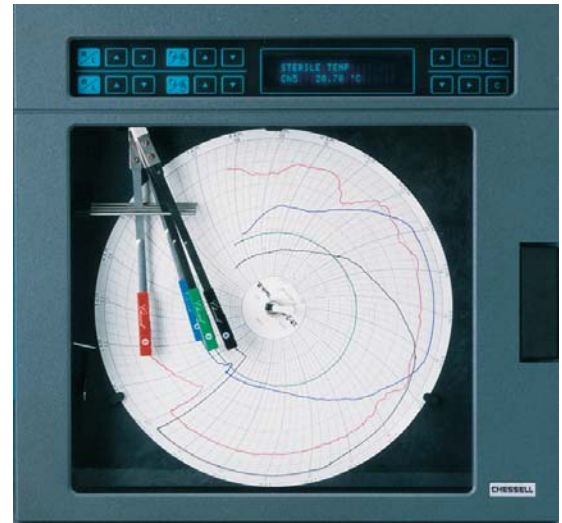
The Eurotherm Chessell Model 392 provides the latest recorder technology with a proven servo motor drive system. Design and solid construction of the Model 392 makes maintenance, field upgrade and the addition of features, fast, easy and affordable. Recorder functions can be configured quickly and easily using the six front panel keys. Operator functions are separated from configurable items by password protection.

### Specifications

Number of inputs:	1, 2, 3 or 4
Input Types:	DC Volts, DC millivolts, DC milliamps (with shunt), 11 Thermocouple Types, 2- or 3-wire RTD, Contact closure/logic low
Chart Speeds:	1 to 4096 hours/revolution
Power:	Standard: 90 to 264V at 45 to 65 Hz
Linearizations:	T/C Types: B, C, E, J, K, L, N, R, S, T, Ni/NiMo RTD Types: Pt100, Cu10, Ni100, Ni120
Voltage Inputs:	4 mV to 5V (100V with attenuator)
Current Input:	Across 250Ω shunt

### Ordering Information

Order #	Mfg#	Description	Price
MP392/21/100/STD	392/21/100/STD	2-Channel Circular Recorder	
MPLA203291	LA203291	Channel 1-Pen (pack of 5 Blue)	
MPLA203292	LA203292	Channel 2-Pen (pack of 5 Red)	
MP50U50	GDTW0050U50	Box of 100, 50 div. 24 Hr. Paper	



392/21/100/STD ▲

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## Eurotherm Chessell 4103C Strip Chart Recorder

- 1-4 Pen Continuous Trace with Annotation Option
- 4-Color Digital Display with Analog Bargraphs
- Roll or Z-Fold Chart
- Front Panel or PC, Local or Remote Configuration
- Universal Isolated Inputs

4103C/BOLZ/STD ▶

The 4103C is a 1 to 4 continuous pen instrument with an 8 Hz sample rate. The unit has the option of a PC card drive for multiple configuration storage, transfer of process data to computer database or spread sheet packages. Extensive mathematic capabilities include totalizers, timers and counters as well as application specific equations. The 4103C's annotation allows scale and message printing and time tagged numerical values to be printed on the chart.

### Specifications

Input Types:	DC Volts, DC millivolts, DC milliamps (with shunt), Thermocouple, 2- or 3-wire RTD, Contact closure (not chan. 1) >60 ms
Chart Speeds:	0 to 36,000 mm/hr.
Maximum number of inputs:	4
Input ranges:	-8 mV to +10V
Linearizations:	T/C Types: B, C, E, J, K, L, N, R, S, T, Ni/NiMo RTD Types: Pt100, Pt1000, Ni100, Ni1000, Cu10
Voltage inputs:	4 mV to 5V (100V with attenuator)
Current input:	Across 250Ω shunt



### Ordering Information

Order #	Mfg #	Description	Price
MP4103C/B01Z/STD	4103C/B01Z/STD	2-Pen, 100 mm Strip Chart Recorder	
MPLA249551	LA249551	Pen 1, Blue	
MPLA249552	LA249552	Pen 2, Red	

Recorders and Data Acquisition

## Yokogawa 100 mm Chart Recorders

*Versatile and simple to operate, these units let you rest easy*

- High Performance, Economical Cost
- Choose from One-, Two-, or Three-Pen or Six-Dot Models
- Compact—Measures Just 175 mm Deep
- Splash and Dustproof Front Door

### Better Reliability and Visibility, Smaller Size

These recorders are constructed with a brushless DC servo motor and an ultrasonic pen-positioning system that eliminate the usual sources of mechanical wear. The pen system also corrects for temperature variations to ensure that the positioning remains precise. And the splash and dustproof front door provides extra protection in severe industrial environments.

For at-a-glance readability, even from a distance, the recorders provide you with a half-inch high digital display. The front panel lets you quickly verify in-operation parameters like measured values, date/time, alarm indications, and chart speed. Initial setup is easy, too. Program your inputs and ranges, alarm settings, etc., and visually verify what you're doing as you set them. These panel-mounted units measure only 175 mm deep, so they take up minimal space.

**Each Unit Includes:** Set of pens or cassette ribbon, pack of Z-fold chart paper, mounting brackets, and instruction manual.



**SR10**

### Specifications

Input Types and Ranges	
DCV:	20 mV, 60 mV, 200 mV, 2V, 6V, 20V
Temperature:	T/C: R, S, B, K, E, J, T, N, W, L, U; RTD: Pt100, JPt100
DCA:	DC current signal input (requires shunt resistor)
Measurement Accuracy (digital)	
DCV:	(0.3% of rdg + 4 digits) or better, range dependent
T/C and RTD:	0.2% of rdg base accuracy or better
Digital Display	
Resolution:	10 $\mu$ V to 10 mV, DCV; 0.1 C, T/C and RTD
Recording	
Accuracy:	Measurement accuracy (0.3% of recording span)
Measurement Interval:	250 msec/channel, pen models; 10 sec/6 channels, dot model
Recording Width and Paper:	100 mm; Z-fold chart, 16m long
Recording Cycle:	Continuous, pen models; 6 channels/30 sec, max, dot model
Chart Speed:	10 to 6,000 mm/hr, 21 steps, pen models; 10 to 1,200 mm/hr, 18 steps, dot model
Chart Speed	
Accuracy:	Within $\pm$ 0.1% (>1,000 mm continuous run and related to chart grid)
Alarms:	Up to 2 levels per channel; choose from High or Low
Display:	Digital LED, 7-segments
Operating Environment	
Environment:	0 to 50°C, 20 to 80% RH (at 5 to 40°C)
Power Supply:	90 to 132/180 to 250 VAC, 50/60 Hz
Dimensions:	5.67 x 5.67 x 6.89" HWD (144 x 144 x 175 mm)
Weight:	3.31 lbs (1.5 kg) or less, pen models; 3.75 lbs (1.7 kg), dot model

### Ordering Information

To Order—Insert Number Code for Each Letter to Select Catalog Number

Order Example: MPSR10-3-E-1/A1/D2

A	B	C	D	E	Price & Adders
A	Basic Unit <b>MPSR10</b>				Price & Adders
B	Recorder Type				
	1	1-Pen Continuous Writing			
	2	2-Pen Continuous Writing			
	3	3-Pen Continuous Writing			
	6	6-Point Dot Printing			
C	Input Type				
	-E-1	DC Voltage and Thermocouple Input			
	-E-2	RTD Input (6-Dot Model only)			
D	Output Relays				
	/A1	2-Alarm Output Relays			
	/A2	4-Alarm Output Relays			
E	Additional Options				
	R1	Remote Controls			
	/D2	User-Selectable °F or °C for TC and RTD Inputs			

### Accessories

Order #	Description	Price
MP415920	Shunt Resistor for Screw Input Terminal, 250 $\Omega$ $\pm$ 0.1%	
MP415921	Shunt Resistor for Screw Input Terminal, 100 $\Omega$ $\pm$ 0.1%	
MP415922	Shunt Resistor for Screw Input Terminal, 10 $\Omega$ $\pm$ 0.1%	
MPM1100JE	Power Cord, 16 AWG, 8 Foot, with Spade Lugs	
MPM1100JT	6-Inch Panel Adapter	
MPB9565AW	Z-Fold Chart Paper, One Each	
MPB9902MY	Roll Chart Paper, One Each	
MPB9901AX	Six-Color Ribbon Cassette, One Each	
MPB9902AM	Disposable Felt Pen Cartridge, Red, Three Each	
MPB9902AN	Disposable Felt Pen Cartridge, Green, Three Each	
MPB9902AP	Disposable Felt Pen Cartridge, Blue, Three Each	
MPB9902AQ	Disposable Felt Pen Cartridge, Violet, Three Each	

## Dickson Universal Input Recorder

- Designed for Use with Transmitters
- Chart Ranges Allow Scaling to DC Input
- High/Low Audio-Visual Alarms
- Record pH, Conductivity, Pressure, Flow RH, Temperature, Level, and Much More

The 22384E will record measurements taken by any powered voltage or current transmitter. Combine this recorder with a transmitter of your choice, and you have a package which records pressure, temperature, pH, RH, or any other process parameter. Recording time is user-selectable at 24-hour, 7-day, and 31-day. You can choose from 20 different chart scales. A built-in digital display provides local indication of the process input.

**Each Unit Includes:** Red pen, box of sixty 8" charts (0 to +100/7-day charts), AC Adapter, and instructions.

ESX ▲

**NOTE:** Four D cell alkaline batteries used for back-up power are NOT included.

### Specifications

Input Ranges:	User-selectable: 0–20 mA, 4–20 mA, 0–5 VDC, 1–5 VDC
Output Ranges:	User-selectable, including decimal point selectability
Recorder Accuracy:	Approx. 0.3% FS ±1 digit (recorder only)
Sensor Capability:	Any powered transmitter (V or I) with specified input range
Display Resolution:	0.001, 0.01, 0.1, or 1 depending on range selected
Recording Time:	User selectable: 24-hour, 7-day and 31-day
Average Response Time:	20 seconds FS, depending on transmitter
Power Supply:	120 VAC adapter, with 220V for international use available
Back-Up Power:	Supplied by 4 D cell alkaline batteries (not included)
Size/Weight:	10.5 x 13.2 x 2.8" HWD/ 7 lbs

### Ordering Information

Order #	Mfg #	Description	Price
MP22384E	ESX	Universal Input Recorder (ESX)	
MP22384E-220	R010	220 VAC Adapter	
MP22385E	P222	Replacement Pack of 6 Red Pens	
MPC498	C498	Charts, Recording Range 0 to +10 (7-Day)	
MPC410	C410	Charts, Recording Range 0 to +100 (24-Hour)	
MPC456	C456	Charts, Recording Range 0 to +200 (24-Hour)	
MPC463	C463	Charts, Recording Range 0 to +30 (7-Day)	
MPC431	C431	Charts, Recording Range 0 to +300 (7-Day)	
MPC405	C405	Charts, Recording Range -10 to +10 (7-Day)	

**NOTE:** This list represents the most popular ranges. Please see page E19 for other chart scale ranges.

## Rustrak DC Recorders

- ±2% FS Accuracy
- Single-Channel Version

### Permanent Inkless Recording of Measured DC Voltage and Current

These galvanometric DC recorders are single-channel models, providing ±2% of Full Scale accuracy.

The 7775E is available in the ranges listed and has a chart speed of one inch per hour. Each unit includes one roll of chart paper and an instruction manual.

**NOTE:** Other ranges, chart speeds, and dual-channel versions are available; please contact Transcat for more information.

1. Specify recorder by catalog number.
2. Select range code from chart.

### Ordering Information

Order #	Mfg#	Description	Price
MP7775E-□-1	288	Single-Channel Recorder	

**NOTE:** These units are supplied with a standard 1K input impedance. Please notify Transcat at the time of order if 4.7K input impedance is required.

### Ranges

Range	Code	Price Single- Channel
4–20 mA	4	
0–5V	11	
0–30V	13	
0–1 mA	14	

### Chart Paper for 7775E

Order #	Major/Minor Div.	Price
MP7778E	4/20	
MP7779E	6/30	
MP7780E	8/40	
MP7781E	10/50	

7775E ▲

## Dickson Waterproof Pressure Recorders

- 4" Recorder
- Water-Resistant NEMA 4X Case
- 2% FS Accuracy
- Ranges—100, 150, 200, 300 or 500 PSI

This new pressure recorder provides protection against corrosion, dust, rain, humidity, and splashed or hose-directed water.

**Each Unit Includes:** One AA alkaline battery, recording pen, box of charts, and instructions.

### Ordering Information

Order #	Mfg #	Description	Price
MP22215P-□-24	PW451	Pressure Recorder, Water-Resistant, 24-Hour	
MP22216P-□-7	PW450	Pressure Recorder, Water-Resistant, 7-Day	
MP22385E	P222	Replacement Pens (Pk/6)	
MPA791	A791	Accessory Kit	
MPA793	A793	Fire Hydrant Adapter Kit	
MPRO22	R022	Filter Kit	
MPA792	A792	Steam Pressure Pigtail	

NOTE: Insert the pressure range into the ordering information box: 100, 150, 200, 300, or 500 PSI  
Call for charts compatible with PW400 Series recorders.

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL



### Specifications

Accuracy:	±2% FS
Sensor:	Bourdon tube with capillary
Ambient Operating Range:	-22 to +122°F (-30 to +50°C)
Connection:	1/4 male NPT
Power Supply:	One AA alkaline battery (up to one year average life)
Weight:	1.8 lbs
Dimensions:	6.25 x 6.0 x 2.9" (15.9 cm x 15.2 cm x 7.4 cm)

## Dickson Recorder RH/Temperature/Dew Point

- Records Two Variables
- User-Selectable Recording Times
- 8" Chart; 1° and 1% RH Resolution

### RH/Temperature/Dew Point

This accurate circular chart recorder allows you to define °F or °C; 1-, 7- or 31-day record length; and choice of recording temperature and RH or temperature and dew point.

Features include settable high/low alarms with visible/audible alerts, digital display of temperature/RH, temperature/dew point, or min/max readings.

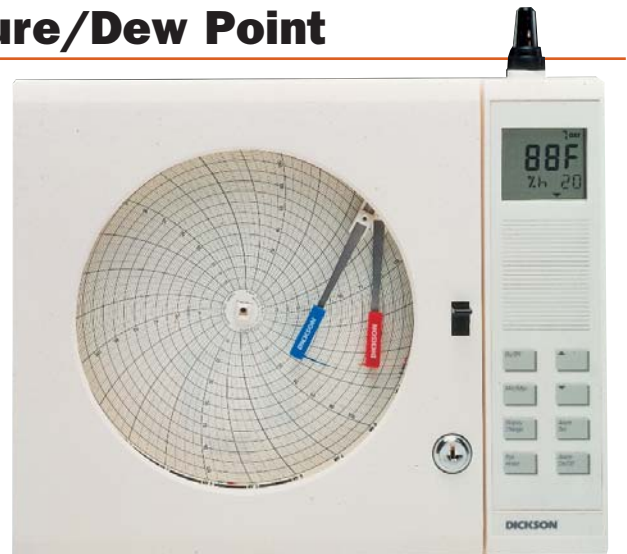
CE is available as an option for an additional charge. Contact Transcat.

**Each Unit Includes:** Box of charts: sixty 7-day, -20 to 120°F (C417), pens—1 red, 1 blue (5511H), AC adapter (21346), NIST certificate with one data point, and instructions.

**NOTE:** Batteries are NOT included.

### Ordering Information

Order #	Mfg #	Description	Price
MP5508H	THDX	Humidity, Temperature, Dewpoint Recorder	
MP5508H-240	THDX	Humidity, Temperature, Dewpoint Recorder, 240V	
MP5509H	834	Humidity Calibration Kit	
MP5510H-10	A860	10' Extension Cable for Probe	
MP5511H	P246	Replacement Pen Pack (3 red, 3 blue)	
MPC417	C417	Chart, -20 to 120°F (Box/60), 7-Day	
MPC473	C473	Chart, -20 to 50°C (Box/60), 7-Day	



### Specifications

Temp Ranges:	-20 to +120°F, +40 to +110°F, and -20 to +50°C, +5 to +40°C
Temp Accuracy:	±1.8°F/±1.0°C
Humidity Range:	0 to 95% RH (non-condensing)
Humidity Accuracy:	±2% from 0 to 90% at 73°F/23°C
Power Supply:	120 VAC adapter (four 1.5V D batteries for back-up power only)
Size/Weight:	10.5 x 13.2 x 2.8" HWD/7 lbs (with batteries) Probe: 0.92 x 5.9"/2.34 x 14.97 cm

## Dickson Universal Input Recorder with Datalogging

### Versatile performer for process DC inputs

If you have a powered transmitter, choose the 24494E to record virtually any variable, including temperature, humidity, conductivity, pressure, differential pressure, flow, gases, pH, and level. Built-in datalogging preserves previously monitored data, and large digital display makes for easy reading of real-time values. Battery backup ensures reliable recordings despite power failures. Choice of one- or two-pen models.

- Compatible with DC Input Signals
- 6" Diameter, 7-Day or 24-Hour Charts
- Program Recording Times and Ranges
- Panel or Wall Mounting, DIN-Compatible
- Audible Alarm Plus SPST Relay Contact for Connection to External Devices

**Each Unit Includes:** One pen (red) with 24494E; two pens with 24495E, box of 60 charts, 6" diameter, wall transformer, 9V alkaline battery, and instruction manual.

**NOTE:** Software and cable are optional.

### Ordering Information

Order #	Mfg #	Description	Price
MP24495E	ET655	Two-Pen Universal Input Recorder/Datalogger	
MP22385E	P222	Pens (6 Red)	
MPA015	A015	Software and Interface Cable (required with initial order to utilize datalogging)	

**NOTE:** See page E19 for compatible chart paper for model ET6 series recorders.



24494E

### Specifications

User-Selectable Ranges:	0 to 10, 0 to 100, 0 to 14, 0 to 200, 0 to 300, -0.10 to +0.10, -20 to +120, -50 to +50
Analog Input Signals:	0-20 mA, 4-20 mA, 0-5V DC, 1-5V DC
Recorder Accuracy:	0.3% FS ±1 digit
Digital Display Resolution:	0.1 from -9.9 to 199.9°; 1 above 200° and below -9.9°
Recording Times:	24 hours or 7 days, user-selectable
Data Storage:	3,840 sample points
Power Supply:	120 or 240 VAC, 50/60 Hz (9V alkaline battery backup)
Enclosure Dimensions:	7.5625 x 7.5625 x 3.25" HWD (192 x 192 x 83 mm)
Panel Cut-Out Dimensions:	6.9 x 6.9" (175 x 175 mm)

E

## Dickson Temperature Recorders

### Extra-wide range, programmable setup, and datalogging option provide superior flexibility

Whether you need to record temperature in a hot oven or a cold freezer, the 24024T series offers built-in versatility plus a selection of options to meet your specific needs. Available with one or two pens, digital display, datalogging, audible alarm, and SPST relay contacts.

- Records Temperature in 8 Selectable Ranges, from -100 to +500°, on 6" Diameter Chart
- Uses Any Type K Thermocouple Probe with Mini-Connector for Remote Sensing
- Recording Times and Ranges are User-Programmable
- Panel- and Wall-Mount Capability, DIN-Compatible Enclosure, AC Power with Battery Backup

**Each Unit Includes:** One red pen (two with 24024T-5), box of 60 (C657) 6" charts, AC adapter, 9V battery, 4' bead wire probe and instruction manual.

**24024T-2, -3, -5 Also Include:** 1-point NIST traceable certificate of calibration.



KT601

### Specifications

Temperature Ranges:	0 to -100°F/C, 0 to -50°F/C, -50 to +50°F/C, 0 to 50°F/C, 50 to 100°F/C, 0 to 100°F/C, 0 to 250°F/C, 0 to 500°F (user-selectable)
Recorder Accuracy:	±0.5% of chart range and 1.8°F (1°C) (Recorder only)
Digital Display Resolution:	0.1° from -9.9 to +199.9°, 1° above 200° and below -9.9°
Recording Time:	24 hours or 7 days, user-selectable
Power Supply:	120 VAC, 50/60 Hz
Back-Up Power:	One 9V alkaline battery
Enclosure Dimensions:	7.5625 x 7.5625 x 3.25" (192 x 192 x 83 mm)
Panel Cut-Out Dimensions:	6.9 x 6.9" (175 x 175 mm)

### Ordering Information

Order #	Mfg #	Description	Price
MP24024T-1	KT601	Temperature Recorder, Remote Probe	
MP24024T-2	KT602	Temperature Recorder with Digital Display, Remote Probe	
MP24024T-3	KT603	Temperature Recorder with Digital Display, Audible Alarm, and Relay Contacts, Remote Probe	
MP24024T-5	KT655	Two-Pen Temperature Recorder with Digital Display, Audible Alarm, Relay Contacts, and Datalogging, Remote Probe	
MPA015	A015	Software and Interface Cable (must accompany initial purchase of 24024T-5 in order to operate datalogging)	
MP22385E	P222	Extra Pens (6 red)	

**NOTE:** See page E19 for compatible chart paper for model KT6 series recorders.

Recorders and Data Acquisition

## Dickson Remote Temperature Recorders

- Seven Switchable Ranges from -50 to +500°F/°C
- Type K Thermocouple Input
- 8" Chart Plus Digital Readout
- Min/Max Recording
- Settable High/Low Alarms



▲ KTX

### Compact, High Accuracy Unit Displays and Records Temperature

The instrument has seven selectable ranges, and will measure temperatures from -50°F or °C to +500°F. You can choose recording times of 24 hours, 7 day or 31 days. A 48" long type K thermocouple probe accurate to 1°C is included, but the unit will accept any K-type T/C with a standard miniature connector. The lockable front panel prevents inadvertent setting changes. The current reading is displayed on the LCD readout.

**Each Unit Includes:** One beaded type K probe (5821T-K), one box of 7-day, 0-100°F/°C charts (5878T), AC adapter, manufacturer's certificate of calibration, and instructions. **NOTE:** Batteries are NOT included.

**NOTE:** See page E19 for more thermocouple probes.

### Specifications

Temperature Ranges:	Selectable 0 to 100°F, 0 to 100°C, -50 to 50°F, -50 to 50°C, 0 to 250°F, 0 to 250°C, 0 to 500°F
Recorder Accuracy:	±0.3% rdg ±1.8°F (±1°C)
Oper Environment:	32 to 122°F/0 to 50°C, 90% RH max, non-condensing
Power Supply:	120 VAC adapter or 4 D cell batteries for back-up power
Size/Weight:	10.5 x 13.2 x 2.8" HWD/5 lbs; 26.7 x 33.5 x 7.1 cm HWD/2.3 kgs

### Ordering Information

Order #	Mfg #	Description	Price
MP5816T	KTX	Temperature Recorder, Type K, Remote Sensing	
MPC414	C414	-50 to 50°F/°C Chart (7-Day)	
MPC412	C412	0 to 100°F/°C Chart (7-Day)	
MPC439	C439	0 to 250°F/°C Chart (7-Day)	
MPC459	C459	0 to 500°F Chart (7-Day)	
MP5821T-K	WD-08467-64	Replacement Bead Probe	
MP22385E	P222	Replacement Red Pens (Pk/6)	

**NOTE:** See page E19 for more charts compatible with model 5816T.

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

E

## Dickson Temperature Recorders

- 4" Chart and Digital Display
- °F or °C Temperature Ranges

SL490F7



### Self-Contained, Portable Temperature Measurement

This 7-day battery powered temperature recorder offers an inexpensive way to track temperatures in environmental chambers, pharmaceutical storage and processing facilities, and critical building areas.

These rugged units feature an easily read 4" diameter chart and a highly visible 3-digit LCD display. Housed in a high impact, corrosion-resistant plastic case, they can be wall-mounted. The locking door design discourages tampering.

**Each Unit Includes:** One 1.5V alkaline AA battery, charts (6001T), recording pen, 1-point NIST traceable certificate of calibration, and instructions.

### Specifications

Temperature Sensor:	Spiral wound bimetallic strip transducer
Pen Accuracy:	±2% FS
Average Response Time:	11 minutes to move 63% of scale
Chart Size:	4" diameter/10.2 cm
Display:	3-digit, 1/2" H LCD
Display Sensor:	Thermistor
Display Accuracy:	±2°F/±1°C
Power Supply:	AA alkaline battery, one-year approx life
Size/Weight:	7 x 5.5 x 2.5" HWD/17 oz



### Range

Code	Temp Range
1	45 to 90 °F
2	-20 to 120 °F
3	-30 to 50 °C

\* Insert desired temperature range code.

**NOTE:** For SK4 recorders insert the range code and 7 (day) or 24 hours in □.

### Ordering Information

Order #	Mfg #	Description	Price
MP4968T-□	SL490F7	Recorder with Display	
MPSK4-□-□	SK4-90F-7	Recorder without Digital Display	
MPC017	C017	Recorder Paper, -20 to 120°F (Pk/60) (7-Day)	
MPC070	C070	Recorder Paper, 45 to 90°F (Pk/60) (7-Day)	
MPC081	C081	Recorder Paper, -30 to 50°C (Pk/60) (7-Day)	
MP22385E	P222	Replacement Pens, Red (Pk/6)	

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

Recorders and Data Acquisition

## Dickson Temperature Recorders

- Sources and Reads
- Records Temperature on 3" Diameter Chart
- Direct Sensing, No Remote Probe

### Self-Contained Temperature Recorder

The reusable SC3 is rugged and compact, making it perfect for storage and transport applications. Its low price makes temperature recording truly affordable.

**Each Unit Includes:** Red pen, AA battery, and instruction manual.

**NOTE:** Chart paper not included—order separately.

24027T ▶



### Ordering Guide for Charts

Recorder Code	Time	°F Chart	°F Range	°C Chart	°C Range	Chart Price
12	24 hr	C301	-14 to 32	C309	-25 to 0	
17	7 day	C302	-14 to 32	C310	-25 to 0	
22	24 hr	C303	4 to 50	C311	-15 to 10	
27	7 day	C304	4 to 50	C312	-15 to 10	
52	24 hr	C319	22 to 68	C317	-5 to 20	
57	7 day	C320	22 to 68	C318	-5 to 20	
32	24 hr	C305	50 to 96	C313	10 to 35	
37	7 day	C306	50 to 96	C314	10 to 35	
42	24 hr	C307	76 to 122	C315	25 to 50	
47	7 day	C308	76 to 122	C316	25 to 50	

### Specifications

Temperature Ranges:	(°C or °F depending on chart installed)
Ambient Operating Temp.:	(-22 to +122°F) (-30 to +50°C)
Mounting:	Free standing, wall mounted, or suspended
Recorder Accuracy:	±2°F, (±1°C) over FS
Resolution:	Not less than 1" per +55°F in 1°C or 2°F steps
Recording Time:	24-hour or 7-day
Power Supply:	Single AA battery (up to one-year average life)

### Ordering Information

Order #	Mfg #	Description	Price
MP24027T-□	SC312	Recorder	
MP22385E	P222	Red Replacement Pens	
MP24029T-2	A833	Tie-Down Cable	

## Dickson Temperature/Humidity Recorders with Datalogging

- Records Temperature and Humidity on 6" Diameter Chart and Stores the Data for PC Download
- User Setup of Recording Times and Ranges
- Real-Time Monitoring at Your PC

**Each Unit Includes:** Red and blue pen, box of 60 6" charts, wall transformer, one 9V alkaline battery, and instruction manual. TH603 and TH607 include 1-point NIST traceable certificate of calibration.

### Microprocessor-Based Temperature and Humidity Recorder

All TH6 recorders will accommodate a wide range of temperature and humidity recording applications. All TH6 recorders feature panel mount and wall mount capability plus a DIN compatible enclosure, AC power with battery back-up, programmable recording times, temperature ranges, and datalogging. Additional features available include digital display, audible alarm, and a SPST alarm/relay contact.

24021T-01 ▶



### Specifications

Temperature Accuracy:	±1.8°F (±1°C); ±0.5% of Full Scale
Humidity Range:	0 to 95% (non-condensing)
Humidity Accuracy:	±2% from 0 to 90% (at 73°F)
Operating Range:	(body) 0 to 95% RH (non-condensing), +32 to 100°F
Sample Interval:	1 minutes in 24 hour mode, 6 minutes in 7 day mode
Software:	Microsoft® Windows™ 95, Windows™ NT, and Windows™ 98 compatible
Storage Points:	1920 temperature, 1920 humidity (3840 total)
Recording Time:	24-hour and 7-day (user-selectable)
Power Supply:	120V 50/60 Hz or 240V 50/60 Hz
Back-Up Power:	One 9V alkaline battery
Enclosure Dimensions:	7.5625 x 7.5625 x 3.25" (192 x 192 x 83 mm)
Panel Cut-Out Dimensions:	6.9 x 6.9" (188 x 175 mm)

### Ordering Information

Order #	Mfg #	Description	Price
MP24021T-01	24021T-01	Recorder	
MP24021T-02	24021T-02	Recorder with Display	
MP24021T-03	24021T-03	Recorder with Display, Remote Probe, Audible Alarm, and Relay Contacts	
MPA015	A015	Software, Cable, and Manual (for Datalogging)	
MP5511H	5511H	Pens (3 red and 3 blue)	
MP5509H	5509H	Calibration Kit (12% and 75%)	
MPC663	C663	0 to 50°C/7-Day	
MPC664	C664	0 to 50°C/24-Hour	

**NOTE:** See page E19 for more charts compatible with model TH600 series recorders.

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

E

Recorders and Data Acquisition

## Dickson Circular Chart Recorder/Chart List

### Chart Paper and Ordering Information

Order #	Description	Corresponding Recorders	Price	Order #	Description	Corresponding Recorders	Price
MPC007	120 to 240/7-Day Chart, 4"	EV401		MPC432	0 to 250/24-Hr Chart, 8"	ESX, PRXA, KTX, KTXE	
MPC009	120 to 240/24-Hr Chart, 4"	EV402		MPC435	0 to 150/7-Day Chart, 8"	ESX, PRXA, KTXA	
MPC010	0 to 100F/24-Hr Chart, 4"	THV99, PR4100PB24S, PW401		MPC436	0 to 200/7-Day Chart, 8"	ESX, PR8200PB7S	
MPC012	0 to 100F/7-Day Chart, 4"	THV97, PR4100PB7S, PW405, DW422, DW425, SL4100F7, SK4100F7		MPC439	0 to 250/7-Day Chart, 8"	ESX, PRXA, KTX, KTXE	
MPC015	-20 to 120F/24-Hr Chart, 4"	SL4120F24, SK4120F4		MPC440	0 to 1000/7-Day Chart, 8"	ESX, KTXE	
MPC017	-20 to 120F/7-Day Chart, 4"	DW424, SL4120F7, SK4120F7		MPC441	0 to 1000/24-Hr Chart, 8"	ESX, PR81000PB24S, KTXE	
MPC025	0 to 150/24-Hr Chart, 4"	PR4150PB24S		MPC442	-150 to 250/24-Hr Chart, 8"	ESX, PRXA, KTXA	
MPC026	0 to 200/24-Hr Chart, 4"	PR4200PB24S, PW403		MPC443	0 to 2000/24-Hr Chart, 8"	ESX, KTXE	
MPC028	0 to 500/24-Hr Chart, 4"	PW404		MPC444	0 to 2000/7-Day Chart, 8"	ESX, KTXE	
MPC032	0 to 250F/24-Hr Chart, 4"	DW427		MPC451	0 to 45/7-Day Chart, 8"	ESX	
MPC035	0 to 150/7-Day Chart, 4"	PR4150PB7S		MPC452	-150 to 250/7-Day Chart, 8"	ESX, PRXA, KTXA	
MPC039	0 to 250F/7-Day Chart, 4"	DW426		MPC453	0 to 14/24-Hr Chart, 8"	ESX	
MPC040	0 to 200/7-Day Chart, 4"	PR4200PB7S, PW407		MPC456	0 to 200/24-Hr Chart, 8"	ESX, PR8200PB24S	
MPC056	0 to 500/7-Day Chart, 4"	PW408		MPC457	0 to 14/24-Hr Chart, 8"	ESX	
MPC070	45 to 90F/7-Day Chart, 4"	SL490F7		MPC459	0 to 500/7-Day Chart, 8"	ESX, KTX, KTXE	
MPC083	-50 to 50C/7-Day Chart, 4"	DW421, DW423		MPC463	0 to 30/7-Day Chart, 8"	ESX	
MPC181	-30 to 50C/7-Day Chart, 4"	SL4350C7, SK4350C7		MPC465	0 to 60/7-Day Chart, 8"	ESX	
MPC301	-14 to 32F/24-Hr Chart, 3"	SC312		MPC472	-20 to 50C/24-Hr Chart, 8"	THDX, TH8-24C, ESX	
MPC302	-14 to 32F/7-Day Chart, 3"	SC317		MPC473	-20 to 50C/7-Day Chart, 8"	THDX, TH8-7C, ESX	
MPC303	4 to 50F/24-Hr Chart, 3"	SC322		MPC476	40 to 110F/24-Hr Chart, 8"	THDX, ESX	
MPC304	4 to 50F/7-Day Chart, 3"	SC327		MPC477	40 to 110F/7-Day Chart, 8"	THDX, ESX	
MPC305	50 to 96F/24-Hr Chart, 3"	SC332		MPC478	5 to 40C/24-Hr Chart, 8"	THDX	
MPC306	50 to 96F/7-Day Chart, 3"	SC337		MPC479	5 to 40C/7-Day Chart, 8"	THDX	
MPC307	76 to 122F/24-Hr Chart, 3"	SC342		MPC480	-20 to 120F/31-Day Chart, 8"	THDX, ESX, KTXA	
MPC308	76 to 122F/7-Day Chart, 3"	SC347		MPC481	40 to 110F/31-Day Chart, 8"	THDX, ESX	
MPC309	-25 to 0C/24-Hr Chart, 3"	SC312		MPC482	-20 to 50C/31-Day Chart, 8"	THDX, ESX	
MPC310	-25 to 0C/7-Day Chart, 3"	SC317		MPC483	5 to 40C/31-Day Chart, 8"	THDX	
MPC311	-15 to 10C/24-Hr Chart, 3"	SC322		MPC486	-30 to 50/24-Hr Chart, 8"	ESX	
MPC312	-15 to 10C/7-Day Chart, 3"	SC327		MPC487	-30 to 50/7-Day Chart, 8"	ESX	
MPC313	10 to 35C/24-Hr Chart, 3"	SC332		MPC491	0 to 45/24-Hr Chart, 8"	ESX	
MPC314	10 to 35C/7-Day Chart, 3"	SC337		MPC495	-10 to .10/24-Hr Chart, 8"	ESX, PRXA	
MPC315	25 to 50C/24-Hr Chart, 3"	SC342		MPC498	0 to 10/7-Day Chart, 8"	ESX	
MPC316	25 to 50C/7-Day Chart, 3"	SC347		MPC651	-50 to 50/7-Day Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC317	-5 to 20C/24-Hr Chart, 3"	SC352		MPC652	-50 to 50/24-Hr Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC318	-5 to 20C/7-Day Chart, 3"	SC357		MPC653	0 to 50/7-Day Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC319	22 to 68F/24-Hr Chart, 3"	SC352		MPC654	0 to 50/24-Hr Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC320	22 to 68F/7-Day Chart, 3"	SC357		MPC655	50 to 100/7-Day Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC402	0 to 1100 PPM/24-Hr Chart, 8"	CO2X		MPC656	50 to 100/24-Hr Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC404	0 to 2200 PPM/24-Hr Chart, 8"	CO2X		MPC657	0 to 100F/7-Day Chart, 6"	TH603, KT601-07, ET655-56, ET601, ET605	
MPC405	-10 to .10/7-Day Chart, 8"	ESX, PRXA		MPC658	0 to 100F/24-Hr Chart, 6"	TH603, KT601-07, ET655-56, ET601, ET605	
MPC406	-50 to 50/31-Day Chart, 8"	ESX, KTX		MPC659	0 to 250/7-Day Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC407	0 to 250/31-Day Chart, 8"	ESX, PRXA, KTX, KTXE		MPC660	0 to 250/24-Hr Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC408	0 to 500/31-Day Chart, 8"	ESX, KTX, KTXE		MPC661	0 to 500/7-Day Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC409	0 to 100/31-Day Chart, 8"	ESX, KTXA, KTX		MPC662	0 to 500/24-Hr Chart, 6"	KT601-07, KT655-56, ET655-56, ET601, ET605	
MPC410	0 to 100/24-Hr Chart, 8"	ESX, PR8100PB24S, KTXA, KTX		MPC663	0 to 50C/7-Day Chart, 6"	TH601-07	
MPC411	-50 to 50/24-Hr Chart, 8"	ESX, KTX		MPC664	0 to 50C/24-Hr Chart, 6"	TH601-07	
MPC412	0 to 100/7-Day Chart, 8"	ESX, PR8100PB7S, KTXA, KTX		MPC665	0 to 200F/7-Day Chart, 6"	ET655-56, ET601, ET605, TH603	
MPC415	-20 to 120F/24-Hr Chart, 8"	THDX, TH8-24F, ESX, KTXA		MPC667	0 to 200F/24-Hr Chart, 6"	ET655-56, ET601, ET605, TH603	
MPC417	-20 to 120F/7-Day Chart, 8"	THDX, TH8-7F, ESX, C8-120-B-7, KTXA		MPC668	0 to 14/7-Day Chart, 6"	ET655-56, ET601, ET605	
MPC418	0 to 1100 PPM/7-Day Chart, 8"	CO2x					
MPC419	0 to 2200 PPM/7-Day Chart, 8"	CO2x					
MPC420	0 to 10/24-Hr Chart, 8"	ESX					
MPC422	0 to 300/24-Hr Chart, 8"	ESX					
MPC424	0 to 30/24-Hr Chart, 8"	ESX					
MPC425	0 to 150/24-Hr Chart, 8"	ESX, PRXA, KTXA					
MPC428	0 to 500/24-Hr Chart, 8"	ESX, KTX, KTXE					
MPC429	0 to 60/24-Hr Chart, 8"	ESX					
MPC431	0 to 300/7-Day Chart, 8"	ESX					

## Newport Temperature/Relative Humidity Recorder

### 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 adapter
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

**CT485B-110V-W-AL/N**

**Each Unit Includes:** 120 assorted double sided charts, two sets of pens, 6' remote sensor cable, wall mounting kit, Cal-Lock kit, batteries, clock battery, and AC adapter.



### Ordering Information

Order #	Mfg #	Description	Price
MPCT485B-110V-W-AL/N	CT485B-110V-W-AL/N	White, 110 VAC, with Alarms and Relay Contacts	
MPCT485B-220V-W-AL/N	CT485B-220V-W-AL/N	White, 220 VAC, with Alarms and Relay Contacts	
MPCT485-CABLE-6W	CT485-CABLE-6W	2m (6') Remote Sensor Cable, White	
MPCT485B-RP-W	CT485B-RP-W	Replacement Probe	
MPCT485B-CLIP-KIT	CT485B-CLIP-KIT	Sensor Clip Kit	
MPCT485-PS/N	CT485-PS/N	Pen Set, Red and Blue, Package of 1 Each	
MPCT485-PS-6/N	CT485-PS-6/N	Pen Set, Red and Blue, Package of 6 Each	
MPCT485-C (*) (**)/N	CT485-C (*) (**)/N	100 Double Sided Charts	

\* (a)—Insert D for 1 day, W for 7 days, or M for 32 days of recording period.  
 \*\* (b)—Insert F or C for temperature units.

## Newport pH and Temperature Recorder

**Each Unit Includes:** 120 assorted double sided charts, two sets of pens, 6' remote sensor cable, wall mounting kit, Cal-Lock kit, batteries, clock battery, and AC adapter.

### Specifications

pH Input (Green Pen)		Temperature Input (Red Pen)	
pH Range:	0.2 to 12.0 pH	Temperature Range:	2 to 80°C
Resolution:	0.1 pH on LCD and 0.2 pH on chart	Resolution:	1°C on LCD and 2°C on chart
Accuracy:	± 0.2 pH	Accuracy:	±3°C
ATC Range:	2 to 80°C	Sensor:	Combination pH and temperature
Sensor:	In line or submersion PPS (Ryton) body with ¾" male NPT, sealed double junction Teflon®, and a pre-amplified output to insure accurate signal over long distances	Display:	User-switchable pH and temperature
Cable Length:	1.8 m (6')	Chart:	200 mm (8") circular linear radial div. 0, 1, 7, 32 day, with pH and °C scale

**CTPH-110V-G-AL/N**

### Ordering Information

Order #	Mfg #	Description	Price
MPCTPH-110V-G-AL/N	CTPH-110V-G-AL/N	Recorder, 110 VAC	
MPCT585-PS	CT585-PS	Red (temp) and Green (pH) Pen Set	
MPCT585-PS-6	CT585-PS-6	Package of Six (6) Pen Sets	
MPCTPH-C(*)C/N	CTPH-C(*)C/N	100 Double-Sided Charts	
MPCTPH-Probe	CTPH-Probe	Replacement pH Probe	

\* Insert D for 1 day, W for 7 day, or M for 32 days of recording period.  
 NOTE: Using the BNC adapter, the ATC is disabled and any low cost pH sensor can be employed. For 220 VAC change 110V in model number to 220V; no extra charge.



## Newport Pressure/Temperature Recorder

### Specifications

Temperature Input:	2 to 120°F (-17 to 49°C)	Media:	Clean dry air
Accuracy:	±1°C	Accuracy:	2% FS
Sensor:	Solid state	Response Time:	1 min, 63% of step
Response Time:	1 min for 63% step	Mounting:	¼" NPT, male
Resolution:	1°F/°C	Cable Length:	3 ft (91 cm)
Voltage Input:	0.02 to 1.2 VDC displayed as 2 to 120°F; disables temperature and pressure input adapter	Oper. Temp Range:	2 to 120°F (-17 to 49°C)
Pressure Input:	2 to 100 PSIG	Comp. Temp. Range:	32 to 120°F (0 to 49°C)
		Operable	
		Overpressure:	150 PSI
		Burst Pressure:	250 PSI

**CT585B-110V-W-AL/N**

### Ordering Information

Order #	Mfg #	Description	Price
MPCT585B-110V-W-AL/N	CT585B-110V-W-AL/N	White Recorder with Alarms, 110 VAC Power	
MPCT585-PS	CT585-PS	Red (temp) and Green (pressure) Pen Set	
MPCT585-PS-6	CT585-PS-6	Package of Six Pen Sets	
MPCT585-C(**)/N		100 Double Sided Charts	
MPCT585-CSP/N	CT585-CSP/N	120 Charts, 20 of Each Combination	

\* (a)—Insert D for 1 day, W for 7 days, or M for 32 days of recording period.  
 \*\* (b)—Insert F or C for temperature units.



E

Recorders and Data Acquisition