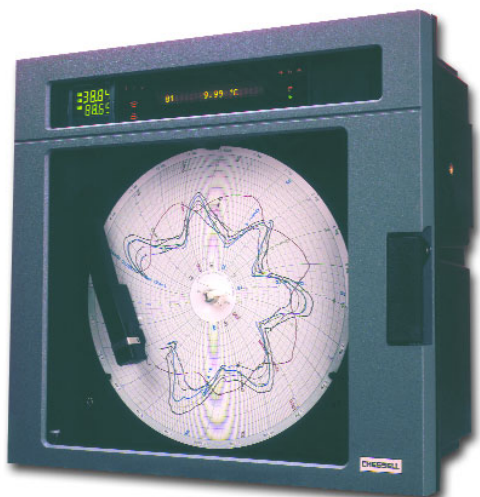
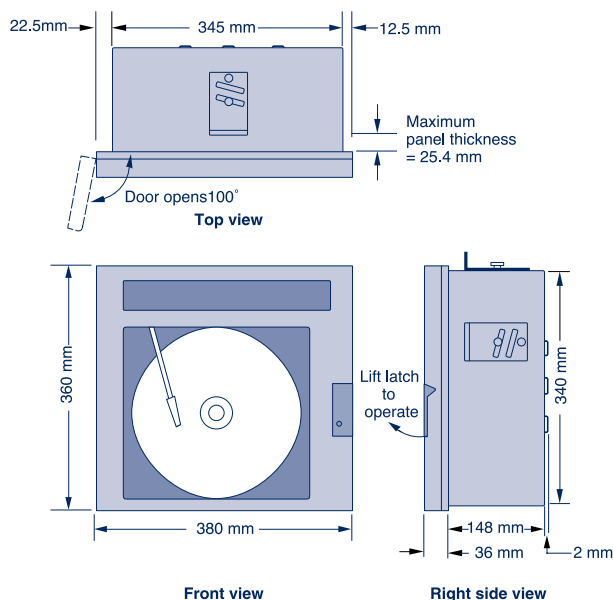


# 394

## Annotating Circular Chart Recorder



The 394 is a multipoint annotating circular chart recorder. Circular chart recorders provide easy viewing of data, which is ideal for a variety of applications. The 394 has local printing communications and memory storage facilities. Using the integral keyboard and display, the 394 can be easily set-up to the exact requirements for your application.



### Options

**Relays** – up to 18 changeover relays for alarm outputs.

**Controllers** – 2 PID control loops with single or dual, time proportioning or current outputs.

**NEMA 4X (IP65) case** – the NEMA 4X case option is fully submersible.

**Transmitter PSU** – current loop supplies for up to 6 transmitters.

**Retransmission** – 2 or 4 linearized current or voltage outputs.

**Communications** – Modbus® RTU.

**Annotation** – provides printing of time, date, scales, logs etc. to chart.

**Math** – powerful math pack option available.

### Features

- up to 6 multipoint channels
- 20 character vacuum fluorescent digital display
- annotation
- high visibility chart
- four alarms per channel
- configuration using front key panel or config port
- powerful maths capabilities
- four totalizers with nine digit readout
- two single or dual output controllers
- data storage on SRAM PC cards

### Specifications

#### Chart type:

Circular

#### Input types:

Thermocouple: B, C, D, E, G2, J, K, L, N, R, S, T, U, Ni/NiMo, Platinel  
 2/3 -wire resistance temperature (RTD)  
 PT100, PT100A, PT1000, Ni100, NI1000,  
 JPT100, Cu10, Ohms, Digital inputs  
 dcmV, dcV, dcmA (with shunt)

#### Temperature limits:

Operation 0-50°C

#### Humidity limits:

Operation 5 to 80% RH non-condensing

#### Literature:

HA027610 Paper Based Recorders

# Ordering codes

394	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
									X				X					X				X		X

1	No. of Channels
1	1 Channel
2	2 Channels
3	3 Channels
4	4 Channels
6	6 Channels

2	Operating Voltage
1	90-264Vac (50-60Hz)
5	24-48Vdc/ac 45-400Hz

3	Input Channel 1 (note 1)
0	None (I/P card not fitted)
1	Universal V, mV, TC, RTD
2	5V to 100V dc (inc 100:1 att)
3	4 to 20mA (inc 250 ohm shunt)

4	Input Channel 2 (note 1)
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5	Input Channel 3 (note 1)
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6	Input Channel 4 (note 1)
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7	Input Channel 5 (note 1)
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8	Input Channel 6 (note 1)
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9	Fixed Digit
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10	Output Changeover Relays (note 2)
0	None
2	Two (one card)
4	Four (one card)
6	Six (one card)
8	Eight (two cards)
10	Ten (two cards)
12	Twelve (two cards)
14	Fourteen (three cards)
16	Sixteen (three cards)
18	Eighteen (three cards)

11	Controller One (note 3)
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12	Controller Two (note 3)
0	None
1	2216 relay (R1/XX)
2	2216 triac (T1/XX)
3	2216 mA (D3/XX)
4	2216 relay/relay (R1/R1)
5	2216 relay/triac (R1/T1)
6	2216 triac/relay (T1/R1)
7	2216 triac/triac (T1/T1)
8	2216 mA/relay (D3/R1)
9	2216 mA/triac (D3/T1)

14	Case Style
0	IP54 Panel mounting
1	IP54 Pipe mounting
2	IP65 Panel mounting
3	IP65 Pipe mounting
4	IP54 Panel mount + stainless steel
5	IP54 Pipe mount + stainless steel

15	Door Lock
0	None
1	Door lock

16	Transducer Power Supply
0	None
1	3 channels, 120Vac supply
2	3 channels, 240Vac supply
6	6 channels, 120Vac supply
7	6 channels, 240Vac supply

17	Totalizers, Timers & Counters (note 4)
0	None
2	Two totalizers
4	Four totalizers
6	Six totalizers
C	Six timers & six counters
C	Six totalizers, timers & counters

19	Customer Curve
0	None
1	32 point pairs

20	Derived (Maths) Channels
0	Maths pack not fitted
1	Basic maths pack fitted
2	Advanced maths pack fitted
3	Adv maths pack & exp display

21	Analog Retransmission (note 2)
0	None
2	2 channel O/P (1 card)
4	4 channel O/P (1 card)

23	Digital Communications (note 2)
0	None
1	Modbus RTU

NOTES:

- Inputs MUST be selected in order (e.g. you cannot specify inputs 1 and 3 and enter '0' for input 2). Any universal input can be configured for TC, RTD, mV dc and V dc directly. Inputs are specified as 4-20mA are universal inputs with a 250ohm shunt resistor provided. Inputs specified as 5V to 100 V dc are universal inputs fitted with a 1M ohm voltage divider. Channel 1 cannot be configured to respond to a contact closure.
- There are THREE option card positions. A relay card takes one position, communications card takes one position, controllers use one position.
- PID control with 85-264V ac power supply and 1 or 2 outputs as selected.
- Totalizers (integrators) are user assignable to any input or derived (math) channel.
- One pack of 100 charts is included as standard. Other charts WITH AND WITHOUT RANGE PRINTING are available, consult the factory for further information.

25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
	X	X	3	X	X	X	X			1	X			X	X			E

25	Window Material
0	Glass
1	Acrylic

26	Fixed Digit
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27	Fixed Digit
----	-------------

28	Certifications
3	CE-European standards

29	Fixed Digit
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30	Fixed Digit
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31	Fixed Digit
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32	Fixed Digit
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33	PC Card Driver
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0	None
A	ASCII logging
C	Config save & restore
P	Packed data logging

34	Memory Card
0	None
1	256K PC card
3	2Mb PC card
5	6Mb PC card

35	Custom Message
1	20 messages (20 Character)

36	Fixed Digit
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37	Customer Logo (Door Label)
01	Eurotherm English

38	Additional Information
0	None
3	Customer inspection
4	Calibration cert 1 Channel
5	Calibration cert 2 Channel
6	Calibration cert 3 Channel
7	Calibration cert 4 Channel
8	Calibration cert 6 Channel

40	Fixed Digit
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41	Chart Supplied with Instrument
(note 5)	
GD239347U050	12 hr, 50 Div
GD239347U060	12 hr, 60 Div
GD239347U080	12 hr, 80 Div
GD239347U100	12 hr, 100 Div
GD239347U150	12 hr, 150 Div
GD239348U050	24 hr, 50 Div
GD239348U060	24 hr, 60 Div
GD239348U070	24 hr, 70 Div
GD239348U080	24 hr, 80 Div
GD239348U100	24 hr, 100 Div
GD239348U150	24 hr, 150 Div
GD239349U050	7 Day, 50 Div
GD239349U060	7 Day, 60 Div
GD239349U070	7 Day, 70 Div
GD239349U080	7 Day, 80 Div
GD239349U100	7 Day, 100 Div
GD239349U150	7 Day, 150 Div

42	Installation Operation Manual
E	English

## Example ordering code

394 - 4 - 1 - 1 - 1 - 1 - 1 - 0 - 0 - 0 - X - 0 - 0 - 0 - X - 0 - 0 - 0 - 0 - X - 0 - 1 - 0 - X - 0 - X - 0 - X - X - 3 - X - X - X - X - 0 - 0 - 1 - X - 01 - 0 - X - X - SV0394U050 - E

394 Default order code

**Consummables**

can be ordered through our website  
<http://store.chessell.com/>