

4" Circular Chart Recorder

CR2010 series

CR2010 series of circular chart recorders are available in 3 different sizes of the charts. The smallest being approximately 4" in chart diameter. When the space is limited or you need a really small chart recorder, this is a perfect fit. These recorders are widely used in low temperature equipment, blood banks, incubators and many more places. They come for RTD Pt-100 inputs or 4-20mA / 0-20mA / 0-1V DC process inputs. Standard chart speed is 7 days for one revolution but other chart speed can also be made available. These recorders are microcontroller based. Crystal controlled chart drive ensures the excellent chart speed accuracy. Stepper motors for both pen and chart drive, ensures no lag and no backlash. Standard 138x138 mm DIN cutout with smallest depth makes it very convenient to use. Transparent polycarbonate door makes the chart visible from distance. They come with universal power supply as a standard feature. Other power supply inputs are also available.

Features :

- 4" Chart Width
- Single Analog Input channel
- Universal Power Supply 85-264 V AC, 47-63 Hz
- Other power supply inputs on request
- Battery Back up
- Direct Input standard Pt-100 sensor
- Process Input through 4-20mA / 0-20mA / 0-1V DC
- 7 Day for chart rotation
- Other chart rotation available on request

Specifications:

Pen

No. of Pens	1
Pen Marking	Continuous
Pen Response Time	<5Sec (Full Scale)
Pen Resolution	Stepper Motor Controlled better than 0.1% FSD
Overshoot	None

Chart :

Chart Speed	7 days/rev
Chart Calibrated	
Radius / Size	1.3" (approx. 34mm) / Circular 4" (approx.)
Chart Ranges	Standard Refer Table 2/ Customized*

Display, Operator Panels and Input :

Display Type	None
Status Indicator	LED
Panel Keys	Front panel KB consisting of 2 keys for programming and calibration

Analog Input

	RTD PT-100 / 0-1V / 4-20mA / 0-20mA (External Shunt Resistance Of 50 Ω 0.1%)
Sensor Type and Range	Refer to the Table 1
Scan Rate	Continuous 1 reading per second

Protection :

Input Impedance	
RTD/Volt	> 20 M Ω
mA	50 / 2.7 Ω Shunt External
CMRR	>100 dB@ 50, 60 Hz at 3 Sample per Second
NMRR	>50 dB@ 50, 60 Hz at 3 Samples per Second
Max. Common Mode Voltage	5V AC
Isolation Channel – EARTH	1.5KV 1 minute
Input Protection	30V AC/DC Max
Termination	Non Interchangeable , Removable Plugs, Individual For Each Input
Transmitter Power Supply	Non isolated 15V DC; 30mA max; un protected

Environmental :

Temperature	(Operation) 5°C to 45°C (Limiting) 0°C to 50°C (Storage) -20°C to 60°C
Humidity	(Operation) 10 to 80 % RH Non Condensing (Storage) 5 to 90 % RH Non Condensing
Altitude	<2000 meter



4" / 6" / 11" - Complete Range of CCR

Power Requirement :

Supply Voltage	85-264VAC, 47-63Hz
(Mains Operated)	
Battery backup	Yes
DC Adapter Operated	Yes
Power	7W Max With Maximum Configuration
Fuse Type	None

Battery Backup :

Battery	12V 7Ah External Lead Acid battery
Battery Charger	Yes
Battery Reverse Polarity	Protected
Minimum Back up	24 Hrs.

Safety :

EMI-EMC	IEC 61326-1 Class A
Safety	IEC 61010-1
Pollution Degree	II
Installation Category	IV
Vibration	2g Peak (10 Hz-150Hz)
Shock	IEC61010-1
IP Rating	IP50 (Door and Bezel only)

Table 1 Sensor Type, Range, Accuracy, and Max Error Specification

Input Type	Valid Input Range	Resolution Chart	Accuracy (FSD)	Linearization Error (Max)
PT-100(RTD) [#]	-100 to 600°C	2%	± 0.5%	± 0.7°C
mA	4-20mA	2%	± 0.5%	± 0.1%
mA	0-20mA	2%	± 0.5%	± 0.1%
mV	0-1 Volt	2%	± 0.5%	± 0.1%

#DIN 43760: $\alpha=0.00385$

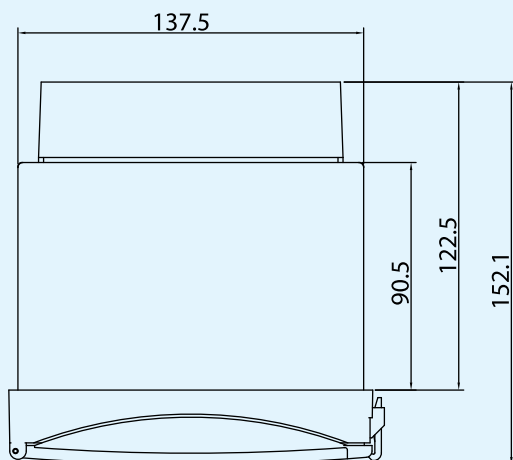
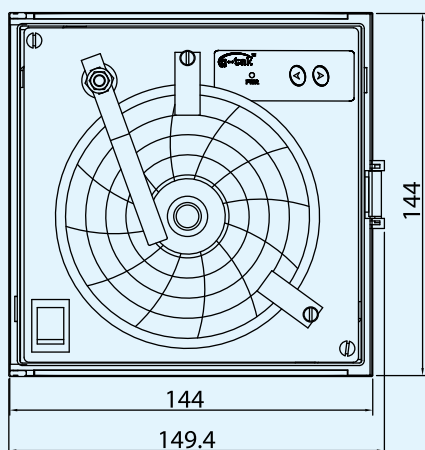
4" Circular Chart Recorder

• Your Ordering **Code** : mail to sales@gtek-india.com

Table 2 Standard Available Chart Ranges

Chart Type XX	Range**	Speed	Part Number	Part Description
01	-10 to +32	7D	303006	
02	+32 to -10	7D	303001	
03	+34 to -50	7D	303002	
04	-50 to +34	7D	303004	
05	-6 to -90	7D	303003	
06	-8 to -50	7D	303005	
09	-40 to -124	7D	303009	
20	Other Please Specify			

**First value is at the center of the chart



Overall Dimension : (approx) :

Dimension L x W x D (mm)	144 x 144 x 91
Panel Cutout (mm) (L x W)	138 x 138 (+0.5)
Bezel (mm)	144 x 144

Select your ORDER Code:

					-				
1	0	0	0	0	-	01	1	4	1

Example ORDER Code:

Code : Recorder Type

1 : CR4 NU

Code : Pen Type

0 : 1Pen No Display*

* Pen with Red ink

Code : Power Supply

0 : 85-264 V AC 47-63 Hz

1 : 12 - 15V DC

4 : 85-264V AC 47-63 Hz BB

5 : 85-264V AC 47-63 Hz BB With TS

7 : 85-264V AC 47-63 Hz With TS

8 : 24V DC, 1A

BB=Battery Backup

TS=Transmitter Supply

Code : Relay

0 : None

Code : PC Interface

0 : None

Code : Chart Type

XX : Refer Table 2

Code : Range

1 : Fixed, Same as Chart Type

Code : Chart Speed

4 : 7 Day / Rev

9 : Other, Please Specify

Code : Sensor Type

1 : RTD Pt -100: DIN 43760; $\alpha=0.00385$

2 : 4 - 20 mA DC

3 : 0 - 20 mA DC

4 : 0-1V DC

Dealer / Representative

The specifications given above are an overview, and may be or may not be available in all product variants, or at an additional cost. The company reserves the right to change the specifications without prior notice, as the company follows a continual improvement philosophy for its products.



Manufacturers of :

Circular Chart Recorders
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