

6" Circular Chart Recorder

CR2010 series

CR2010 series of circular chart recorders are available in 3 different sizes of the charts i.e. 4", 6" and 11". If you want better readability in small space, this 6" chart recorder is a perfect fit. These recorders are widely used in low temperature equipment, blood banks, incubators and many more places. It takes direct inputs from RTD Pt-100 / Thermocouples / process inputs like 4-20mA / 0-20mA / 0-1V. Standard chart speed varies from 1 hour/revolution to 255 hours/revolution. These recorders are microcontroller based. Crystal controlled chart drive ensures accurate chart speed. Stepper motors for both pen and chart drive, ensures no lag and no backlash. With a cutout of 200 x 170 mm and 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 :

- 6" Chart Width
- One / Two Analog Input channels
- Universal Power Supply 85-264 V AC, 47-63 Hz
- Other power supply inputs on request
- Battery Back up
- Direct Input standard Pt-100 / Thermocouple sensors
- Process Input through 4-20mA / 0-20mA / 0-1V
- 1-255 hrs of chart rotation
- Other chart rotation available on request

Specifications:

Pen

No. of Pens	1/2
Pen Marking	Continuous
Pen Response Time	<5Sec (Full Scale)
Pen Resolution	Stepper Motor Controlled better than 0.1% FSD
Overshoot	None

Chart :

Chart Speed	1 hour/rev to 255 hours/rev
Chart Calibrated	
Radius / Size	2.3" (approx. 59mm) / Circular 6" (approx. 150mm)
Chart Ranges	Standard Refer Table 2/ Customized*

Display, Operator Panels and Input :

Display Type	Digital, 8 digit ultra-bright LED Numeric / semi alphabetic
Display Height	0.3"
Status Indicator	Channel number and corresponding parameter values, prompts and messages displayed for ease of setup and programming.
Panel Keys	Front panel KB consisting of 3 keys for programming and calibration
Analog Input	RTD PT-100 / 4-20mA (External Shunt Resistance) / TCJ-K-R-S-T/ 0-1V
Sensor Type and Range	Refer to the Table 1
Scan Rate	Continuous 1 reading per second

Protection :

Input Impedance	RTD/VOLT/TC > 20 MΩ
	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
Maximum 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 (Mains Operated)	85-264V, AC 47-63Hz
Battery backup	Yes
DC Adapter Operated	Yes
Power	10W 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	>12 Hrs.

Communication RS232 / 485* :

Protocol	Proprietary
Baud Rate	4800
Parity	None

Relay Output* :

Max no of relays per recorder	4
Output type	Potential free contact, 1 Form C
Configuration	High/Low/High-Low/On-Off (Hysteresis band settable)
Life expectancy	Mechanical: 10 ⁷ operations Electrical: 10 ⁵ operations
Load	1A, 230V AC resistive
Relay refresh rate	1 Sec.
Isolation Relay-Relay	2.5 KV 1 Minute
Isolation RelayContact-GND	1.5 KV 1 Minute

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 Resolution

Input Type	Valid Input	Resolution	Accuracy	Display Range
PT-100(RTD) [#]	-100 to 600°C	0.1	± 0.5% FSD ± 1 digit	-2000.0 to +2000.0
mA	4-20mA/0-20mA			
mV	-1000.0 to +1000.0			
TC-J (Fe-CuCn)	0 to 400°C			
TC-K (NiCr-NiAl)	0 to 1200°C			
TC-R (Pt13Rh -Pt)	0 to 1750°C			
TC-S (Pt10Rh-Pt)	0 to 1750°C			
TC-T (Cu-CuCn)	-100 to + 400°C			

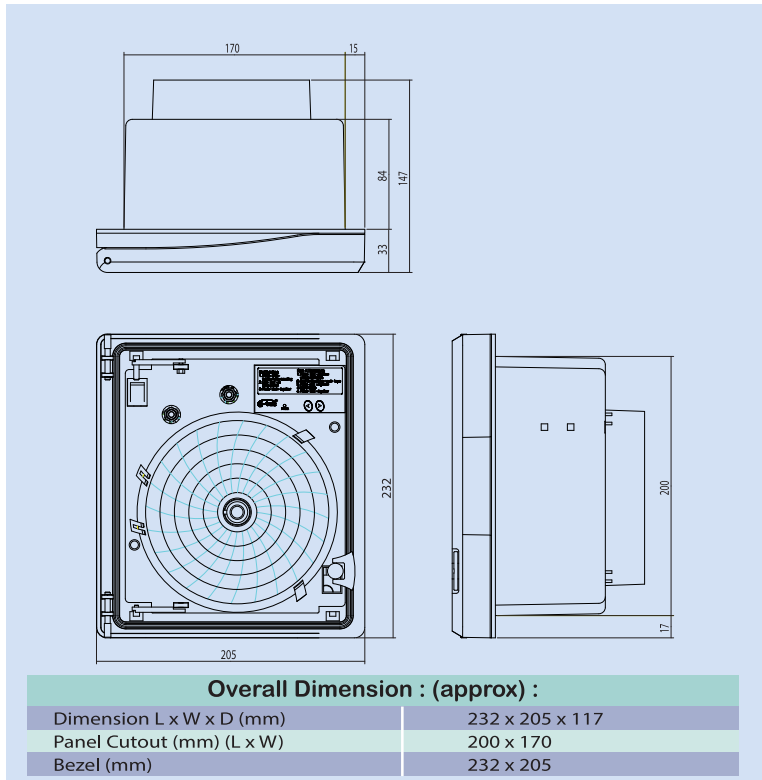
*DIN 43760: a = 0.00385 *optional

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Table 2 Standard Available Chart Ranges

Chart Type XX	Range**	Speed	Part Number	Part Description
21	0 to +100	24hrs/rev	304001	D60100
22	0 to +150	24hrs/rev	304002	D60150
23	0 to +200	24hrs/rev	304005	D60200
24	0 to +300	24hrs/rev	304008	D60300
25	-50 to +50	24hrs/rev	304016	D6-50+50
26	0 to +160/-1 to +3	24hrs/rev	304004	D60160/-1+3 Dual range
27	+90 to +140	4hrs/rev	305001	4H690140
28	0 to +100	7days/rev	307001	W60100
29	-50 to +50	7days/rev	307010	W6-50+50
30	+50 to -50	7days/rev	307009	W650-50
31	-100 to +50	7days/rev	307005	W6-100+50
32	+50 to -100	7days/rev	307008	W650-100
33	+40 to -10	7days/rev	307007	W640-10
34	0 to +50	7days/rev	307004	W6050
35	0 to +10	7days/rev	307012	W6010
50	Other Please specify			

** First range is at the center of the chart



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

Select your ORDER Code: -

Example ORDER Code: -

Code : Recorder Type
2 : CR6 NU

Code : Pen Type
0 : 1Pen No Display
1 : 1Pen with Display
2 : 2Pen with Display

Code : Power Supply
0 : 85-265 V AC, 47-63 Hz
1 : 12-15V DC 1Amp
4 : 85-265VAC, 47-63 Hz with BB*
5 : 85-265V AC, 47-63 Hz With TS**
7 : 85-265VAC, 47-63 Hz BB* and TS**
8 : 24V DC 1Amp
*BB=Battery Backup,
**TS=Transmitter Supply, 13-17V DC @ 30mA (max)

Code : Relay
0 : None
1 : 1 Relay
2 : 2 Relay
4 : 4 Relay

Code : PC Interface
0 : None
1 : RS-232
2 : RS-485

Code : Chart Type
XX : Refer Table 2

Code : Range
0 : Programmable
1 : Fixed, Same as chart type

Code : Chart Speed
0 : Programmable
1 : 4 Hr/Rev
2 : 8 Hr/Rev
3 : 24 Hr/Rev
4 : 7 days/Rev
9 : Other, Please specify

Code : Sensor Type
0 : Universal
1 : RTD Pt 100 DIN 43760; $\alpha=0.00385$
2 : 4 - 20 mA DC
3 : 0 - 20 mA DC
4 : 0 - 1 Volt DC
5 : TC - J
6 : TC - K
7 : TC - R
8 : TC - S
9 : TC - T
A : 0 - 10V DC
B : 0 - 5V DC

Dealer / Representative



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