



SmartRecord: Universal Input Paperless Circular Chart Recorder

SmartRecord is paperless circular chart recorder with 2/4 Universal inputs & bright viewing angle LCD touch screen colour display. It is used in processes that need historical data, which makes the documentation of measured variables essential. It can record a variety of process parameters such as temperature, humidity, pressure or flow. Its USB Host Port allows data retrieval in the form of image format as well as system upgrade.

Key Features:

- SmartRecord available in 7.1" & 10.1" display size
- 64K colours, bright & wide viewing angle TFT display
- Resistive touchscreen for easy man machine interaction(7.1" & 10.1")
- Circular chart & numerical display with alarm status
- Universal inputs : RTD, thermocouple and analog input
- True 16 bit ADC for high accuracy
- User selectable variable chart duration from 1 hour to 7 day
- 4 MB data storage capacity suitable for 15 days record
- Inbuilt 24VDC sensor excitation output
- USB host port to download numerical and graphical data

Applications:

- Water/waste water treatment
- Food processing
- Blood banks and pharmaceutical industry
- Environmental monitoring, heat treating and power monitoring, flow monitoring

Technical Specifications:

Specifications	SmartRecord71UTL	SmartRecord101UTL
Description	4 ch. Universal Input Paperless Circular Chart Recorder	
Display	7.1 Inch, 64K Colors, Bright & wide viewing angle TFT with LED backlight	10.1 Inch, 64K Colors, Bright & wide viewing angle TFT with LED backlight
Display Resolution	800 x 480 Pixel	1024 x 600 Pixel
No. Of Input	4 Nos.	4 Nos.
Operator Interface	Touch screen	Touch screen
Features	<ul style="list-style-type: none"> • Circular Chart Type Graphical Recording • 4 MB Data Storage Capacity(60,000 samples/channel) # optional expandable to 8 MB • Inbuilt 24VDC Sensor Excitation Output • Optional GSM -GPRS / Wi-Fi Compatibility • USB Host, Serial RS-232 & RS-485 communication Facility 	
Display Trends	a. Circular Chart of individual channel or all channels. b. Numerical display with alarm status	
Input Types	a. RTD : PT100 b. Thermocouple : J, K, R, S, T c. Volt Inputs(DC) : 0-250 mV, 0-500 mV, 0-1V, 0-2V d. Current Inputs(DC) : 0-20 mA ,4 - 20 mA	
Sample Rate	4 ch. Per Second.	
Resolution	TC : 0.1 °C RTD : 0.1 °C Volt Input : 1, 0.1, 0.01, 0.001, 0.0001 Current Input : 0.001 mA	
Accuracy	For TC inputs : ± 5 °C For RTD input : ± 0.5 °C Volt Input : 0.1% Current Input : 0.1%	
Real Time Clock	Internal Real Time Clock with battery backup with accuracy of +/- 1 min per month	
Chart Interval	1 Hour / 3 Hour / 6 Hour / 12 Hour / 1 day / 7 Day (User settable)	
Logging Modes	Continuous	
Data Logging	Parameter value of each channel is stored with respect to real time and the alarm status of the corresponding channel in the internal flash memory. Data is retained even in the absence of mains power.	
Data Storage	4 MB internal data storage capacity (suitable for storing 15 Days graphs of all the channels)	
Sensor Excitation	24V DC, 250 mA	
Communication Interface	RS-485 Port, Transmission Protocol : Proprietary (Optional MODBUS RTU) RS-232 Serial Port for PC communication	
USB Interface	USB Host port to download .bmp file in graphical format & system upgrade	
Printer Interface	Optical Isolated RS232 Serial Interface for 80 Column Dot Matrix Printer	
Print Mode	Manual, Auto-Timed, Auto (for numerical data)	
Reports	Tabular reports of process value along with alarm status for each channel can be generated / printed along with channel statistics like Minimum Value, Maximum Value & Average value of each channel over selected period.	
Supply Voltage	230V AC 50 Hz	
Temperature	Operating : 0°C to 50°C Storage : 0°C to 50°C	
Humidity(Non-Condensing)	Up to 95% RH	
Housing & Type of Mounting	Panel Mounting Metal Enclosure with ABS front	

Optional Features:

SMS Alerts	SMS alerts can be generated to 3 predefined mobile numbers on any alarm event
Data Transfer via email	Data Transfer after regular user settable interval to 3 email addresses in .csv format or report format
Data Transfer to Server	Data Transfer after regular user settable interval to the client server in FTP format
Wireless connectivity	2.4GHz licence free communication link from various sensors to the logger or from Logger to PC for data downloading

PC Software:

Windows based PC software to:

- Download data from the data logger
- View Runtime parameters values and graphical trends
- Download the logged data from the data logger
- Generate & save reports
- Optional 21 CFR compliant software features



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