



## SMARTSCAN-43

### 8/16 CH. UNIVERSAL INPUT LOGGER WITH GRAPHICAL DISPLAY

SMARTSCAN-43 is an advanced version of micro-controller based universal input data logging /acquisition system mainly designed for Industrial, Pharmaceutical & Laboratory use. The SMARTSCAN-43 accepts 8 (or 16) channel universal analog inputs & 2 digital Inputs. The 4.3 inch, 64K colours, Bright & wide viewing angle TFT display with backlight gives easy man-machine interface and 5 keys comprehensive keypad gives access to set various parameters. In-built USB Host driver gives the flexibility to download the data on USB stick and also offers the on-site program updating facility to the system. Optional GSM/GPRS connectivity gives remote SMS alarm facility and data transfer by E-mail or FTP transfer on web server. The reliable firmware ensures accuracy in analog readings and assures perfect time latency in data logging.

#### Key Features:

- 8/16 Universal analog inputs and 2 digital inputs.
- 4.3 inch, 64K colours, Bright & wide viewing angle TFT display.
- Display 8 parameters/values with alarm in single screen.
- 4 MB data storage capacity (60,000 samples/channel).
- Serial RS-232 and RS-485(MODBUS) interface for PC communication.
- USB host port for easy data retrieval.
- Firmware upgrade at user end through USB.
- Optional GSM-GPRS/ Wi-Fi compatibility.

#### Application Areas:

- Monitoring Cold Storage & perishables during shipments in Dairy & Food Industries.
- Blood Banks.
- Chemical & Cement Industries.
- Oil & Gas Industries.
- Process monitoring for maintenance and troubleshooting applications.
- Mapping, Validation & Calibration Service.

# TECHNICAL SPECIFICATIONS

## SMARTSCAN-43

<b>Description</b>	8 or 16 channel Universal Input Logger with Graphical Display
<b>Features</b>	<ul style="list-style-type: none"> <li>● Seven Segment 4 digit Display Row1 : Time Row2 : Process Value</li> <li>● 4MB Data Storage Capacity(60,000 samples/channel )</li> <li>● Optional GSM-GPRS and Wi-Fi Compatibility</li> <li>● Serial RS-232 + RS-485 communication Facility</li> <li>● USB Host Port for easy data retrieval &amp; Firmware upgrade</li> </ul>
<b>Display</b>	4.3 inch, 64K colours, Bright & wide viewing angle TFT screen with LED backlight along with Key Comprehensive Keypad
<b>Display Resolution</b>	480 X 272 pixel
<b>Display Trends</b>	a. Bar Graph Display b. Numerical Display with Alarm Status
<b>Input Types</b>	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 e. Two low frequency digital Inputs
<b>Scan Time</b>	1-15 sec user selectable
<b>Sample Rate</b>	8 ch. per second (125 msec/ch.)
<b>Resolution</b>	TC : 1 °C RTD : 0.1 °C Volt Input : 1, 0.1, 0.01, 0.001, 0.0001V Current Input : 0.001 mA
<b>Keypad</b>	4 Keys (Menu, Up, Down, Enter)
<b>Communication Port</b>	2 No. RS-485 (1 <sup>st</sup> RS-485 for PC Comm. & 2 <sup>nd</sup> for External Display)
<b>Alarm Output</b>	External potential free relay output for external Hooter/ Buzzer
<b>Accuracy</b>	For TC inputs : $\pm 5$ °C For RTD input : $\pm 0.5$ °C Volt Input : 0.1% Current Input : 0.1%
<b>Real Time Clock</b>	In-built with Battery backup
<b>Logging Modes</b>	Continuous/ Time Based/ Value Triggered
<b>Logging Interval</b>	1 sec. to 1 Hr (Programmable)
<b>Data Logging</b>	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.
<b>Data Storage</b>	4 MB internal memory ( suitable for 60,000 samples/ channel )
<b>Relay/ Alarms</b>	5A @ 230V AC, resistive load
<b>Alarm Modes</b>	High Alarm, Low Alarm, Band alarm(In range / Out range)
<b>Relay Reset Action</b>	Automatic
<b>Relay Rating</b>	5A @ 230V AC, resistive load

Communication Interface	RS-485 Port, Transmission Protocol : Proprietary (Optional MODBUS RTU) RS-232 Serial Port(PC Interface)
USB Interface	USB Host Port for data retrieval & system upgrade
Printer Interface	USB Host Port for data retrieval & system upgrade
Print Mode	Manual, Auto-Timed, Auto
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/50Hz, $\pm 10\%$
Temperature	Operating : 0°C to 50°C Storage : -10°C to 50°C
Humidity (Non-Condensing)	Up to 95% RH
Housing & Type of Mounting	Panel Mounting Metal Enclosure with ABS front
Dimensions	192 mm (W) X 92 mm (H) X 160 mm (D)

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



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**Dealer Stamp**