



SMARTSCAN-04: 4 Channel Universal Input Logger

SMARTSCAN-04 is an advanced micro-controller based universal input data acquisition system mainly designed for Industrial, Pharmaceutical & Laboratory use. The SMARTSCAN-04 accepts 4 universal analog inputs & 1 digital input. The 16 character x 2 line alpha numeric LCD display with backlight gives easy access of the process parameters along with set point values & LED indication for Relay/ Alarm status as well as 5 key comprehensive keypad allows easy man machine interface. 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. The reliable firmware ensures accuracy in analog readings and assures perfect time latency in data logging.

Key Features:

- 1 Universal analog inputs and 2 digital inputs
- 1 4 MB data storage capacity (60,000 samples/channel)
- 1 Inbuilt 24VDC sensor excitation output
- 1 Serial RS-232 and RS-485(MODBUS) interface for PC communication
- 1 USB host port for easy data retrieval
- 1 Firmware upgrade at user end through USB
- 1 Optional GSM/GPRS/Wi-Fi compatibility

Application Areas:

- 1 Monitoring cold storage and perishables during shipments in dairy & food industries
- 1 Blood banks
- 1 Chemical and cement industries
- 1 Oil & Gas Industries
- 1 Process monitoring for maintenance and troubleshooting applications
- 1 Mapping, Validation & Calibration Service

Technical Specifications:

SMARTSCAN - 04	
Description	4 channel Universal Input Data Logger
Features	<ul style="list-style-type: none"> 1 Indicator & Logger with Controller 1 4MB Data Storage Capacity(60,000 samples/channel) 1 Inbuilt 24VDC Sensor Excitation Output 1 Optional GSM-GPRS and Wi-Fi Compatibility 1 USB Host, Serial RS-232 & RS-485 communication Facility
Display	16 character X 2 line LCD Display with Backlight to indicate : - Channel Name - Process Value - Measurement Unit - Date & Time LED indication for Individual Relay Common Alarm Indication on LED
Input Types	a. RTD : PT100 b. Thermocouple : J, K, 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. One low frequency digital Input
Scan Time	1-15 sec user selectable
Sample Rate	2 samples/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	Available with Battery backup
Logging Modes	Continuous/ Time Based/ Value Triggered
Logging Interval	1 sec. to 1 Hr (Programmable)
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 memory (suitable for 60,000 samples/ channel)
Relay/ Alarms	4 Relays
Alarm Modes	High Alarm, Low Alarm, Band alarm(In range / Out range)
Relay Reset Action	Automatic
Relay Rating	5A @ 230V AC, resistive load
Sensor Excitation	24V DC, 250 mA
Communication Interface	RS-485 Port, Transmission Protocol : Proprietary (Optional MODBUS RTU) RS-232 Serial Port(PC/Printer)
USB Interface	USB Host Port for data retrieval & system upgrade
Printer Interface	Optical Isolated RS232 Serial Interface for 80 Column Dot Matrix Printer
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
Temperature	Operating : -10°C to 50°C Storage : -20°C to 50°C
Humidity (Non-Condensing)	Up to 95% RH
Housing & Type of Mounting	Panel Mounting Metal Enclosure with ABS front
Dimensions	92 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:

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