



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:

- 8/16 Universal analog inputs and 2 digital inputs.
- 4 MB data storage capacity (60,000 samples/channel)
- Inbuilt RTC to provide timed and event based logging
Serial RS-232 and RS-485(MODBUS) interface for PC
- 4 Grouping relays.
- 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.
- Accurate , Cost effective and Reliable

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 - 04 | |
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| Description | 4 channel Universal Input Data Logger |
| Features | <ul style="list-style-type: none"> • Indicator & Logger with Controller • 4MB Data Storage Capacity(60,000 samples/channel) • Optional GSM-GPRS and Wi-Fi Compatibility • Serial RS-232 + RS-485 communication Facility • USB Host Port for easy data retrieval & Firmware upgrade |
| Display | 16 character X 2 line LCD Display with Backlight to indicate : <ul style="list-style-type: none"> • 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, 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. 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 | In-built 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 Grouping Relays |
| Alarm Modes | High Alarm, Low Alarm, Band alarm(In range / Out range) |
| Relay Reset Action | Automatic |

TECHNICAL SPECIFICATIONS

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| Relay Rating | 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 | 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, $\pm 10\%$ |
| 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 | 92 mm (W) X 92 mm (H) X 160 mm (D) |

Optional Features

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|-------------------------|---|
| 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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