

4 / 8 / 16 Channels Data Logger

ScanLog 4C / ScanLog 8C / ScanLog 16C

Universal 4 / 8 / 16 Channels
 21 CFR Part 11 Compliant PC Interface
 CSV Formatted Pen-Drive Interface
 Built-in Huge Record Storage Capacity

Process Precision Instruments

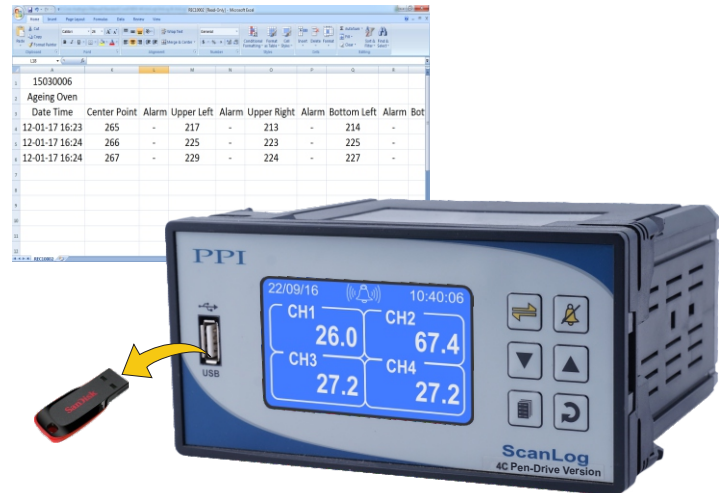
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PC Interface 21 CFR Part 11 Compliant Software



Pen-Drive Interface CSV Formatted Records



Salient Features

- 160 X 80 Monochrome Graphic Display & 6 Tactile Keys
- 4 / 8 / 16 Universal Analog Channels
- Independent Jumper-less Input Type Selection : Thermocouples, RTD Pt100, mV, V, mA
- Fast Channel Update Rate : 250 mS per Channel
- 4 Programmable Soft Alarms per Channel
- 4 Common Relay Outputs for Alarms
- Optional, 5V or 24V DC Excitation Voltage Output
- User Assigned Channel Names for Easy PV Identification
- Huge Data Storage Capacity : Appx. 38,56,000 Records
- Date / Time Stamped Process Value (PV) & Alarm Status Recording with Programmable Recording Interval
- Event Generated Records : Power-up, Alarm Toggle, RTC / Recording Interval Changed
- Continuous or Batch Recording
- Free 21 CFR Part 11 Compliant Software with PC Interface Version
- Easy Data Transfer to PC in Excel Format for Pen-Drive Interface Version
- Supply Voltage : 85 to 264 VAC, 50/60 Hz
- Size (mm) : 80 (H) X 160 (W) X 144 (D)

General Information

Product Type	Universal 4 / 8 / 16 Channels Composite Data Logger with PC / Pen-Drive Interface
Quantity	1 Unit
Accessories	(Optional) USB to RS485 Converter
Similar Products	ScanLog 96 UniLog Ultra UniLog Plus UniLog Pro Plus

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Operator Interface

Display	160 X 80 STN Monochrome Graphic LCD
Keys	6 Tactile Switches PAGE, DOWN, UP, ENTER, ALARM ACK/VIEW, SCROLL

Channel Specifications

Number of Channels	4 / 8 / 16		
Input Types	Thermocouples	: J, K, T, R, S, B, N	
	RTD	: Pt100, 3-Wire	
	DC mV	: 0 to 80 mV	
	DC Volts	: 0 to 1.25V, 0 to 5V, 1 to 5V, 0 to 10V	
	DC mA	: 0-20 mA, 4-20 mA	
Accuracy	Thermocouples	Measurement : $\pm 0.25\%$ of Measured Value ± 1 LSD (Excluding CJC Error)	
		Cold Junction : $\pm 2.5^\circ\text{C}$ (Specified over 18 to 37°C Ambient)	
	RTD Pt100	$\pm 0.25\%$ of Measured Value ± 1 LSD (Lead-Resistance compensated up to 5Ω in each Lead)	
	DC mA / mV / V	$\pm 0.20\%$ of Measured Value ± 1 LSD	
Resolution (Settable)	Thermocouples & RTD	: 0.1 / 1 ($^\circ\text{C}$)	
	DC Linear Volts / Current	: 0.001 / 0.01 / 0.1 / 1 (Counts)	
Range	Thermocouple & RTD Pt100	: Refer Table-1	
	DC Volts / Current	: Programmable within -30000 to +30000 Counts	
Zero Offset	User Adjustable over Full Range for Each Channel		
ADC	16 Bit ($\pm 32,768$ Counts), Sigma-Delta ($\Sigma\Delta$)		
Channel Update Time	1 Second for 4 Channels	2 Second for 8 Channels	4 Second for 16 Channels
Input Impedence	Greater than $10\text{ M}\Omega$ 249Ω Precision Shunt Resistor for 0-20 mA & 4-20 mA Input		
Signal Conditioning	First Order Low-Pass RC Filter. Cutoff Frequency at 55Hz (3dB at 55Hz with roll-off rate of 20dB/decade)		
Input Protection	ESD : 8KV	EFT : 2KV	Surge : 1KV

Alarms

Numbers	4, Independent for Each Channel		
Programmable Parameters	Type	: Process Low, Process High	
	Logic	: Normal, Reverse	
	Hysteresis	: 1 to 3000 Unit Counts	
	Inhibit	: No, Yes	
Outputs (Optional)	Relay Change-over Contacts		
	Relay-1	: Common for Alarm-1 of All Channels	Relay-2 : Common for Alarm-2 of All Channels
	Relay-3	: Common for Alarm-3 of All Channels	Relay-4 : Common for Alarm-4 of All Channels

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Outputs

Relay	Contact Type : Potential-free Change-over Contacts
	Contact Rating : 5A @ 250 VAC / 30 VDC (Resistive Load)
	Contact Life : > 5,00,000 Operations at Rated Voltage / Current

Data Logging

Storage Capacity	2 GB Flash Memory (Approx. 38,56,000 Records)
Recording Mode	Continuous, Batch
Recording Interval	Programmable from 00 : 00 : 01 to 02 : 30 : 00 (Hour : Minutes : Seconds)

Power Supply

Type	Switch Mode (SMPS)
Line Voltage	85 to 264 VAC, 50/60Hz
Consumption	7VA Max

Physical

Mounting	Plug-in with Panel Mounting Clamps
Overall Dimensions	80 (H) X 160 (W) X 144 (D), mm
Panel Cutout	78 (H) X 154 (W), mm
Terminals	Pluggable Terminal Blocks
Weight	600 Grams, Max.

Environmental

Operating Ambient	0 to 55°C & 5 to 90%RH Non-condensing
Storage Temperature	-10 to +70°C
Atmospheres	Not Suitable for use in Corrosive or Explosive Atmospheres. The Panel in which the Instrument is Mounted must be free of Electrically Conductive Pollution.

PC Interface

Device Serial Port	Port : RS485, 2-wire, Half Duplex, Start-Stop Synchronized
	Slave ID : 1 to 127
	Max. Units per Loop : 31
	Max. Distance : 1200 Meters

Pen-Drive Interface

Pen-Drive Support	USB 2.0, Format : FAT, Socket : Type A
File Operation	Read <i>Set.txt</i> file Write .csv files (Data Records)

PC Software (USFDA 21 CFR Part 11 Compliant)

Supported Operating Systems (OS)	<ul style="list-style-type: none"> • Windows Vista • 32 bit / 64 bit Windows 8 & Above 	<ul style="list-style-type: none"> • Windows 7
Minimum PC Configuration Requirements	<ul style="list-style-type: none"> • 2.8 GHz Clock Speed • 32 bit / 64 bit Pentium Dual Core 	<ul style="list-style-type: none"> • 40 GB Hard Disk • 2 GB RAM
Features	<ul style="list-style-type: none"> • Supports Multiple Data Logger on Single Installation • Auto Start-up on PC Power-up • Online Display of Process Values & Stored Records in Graphical & Tabular Forms with Alarm Indications • SMS and/or Email Alerts on Alarm Conditions • Process Value Min / Max Average Computation • Automatic Periodic Downloading of Records Stored in Data Logger • Access Control According to Authority Level • User Actions with Signing & Authorization • Automatic Password Expiry • Manual & Auto Back-up Facility with Archiving • Data Log Reports with User Configurable Title, Footer & Header • Data Log Report, Alarm Log Report, History Graph & Audit Trail Report in PDF & EXCEL formats • Audit Trail History of Critical Events & User Actions 	

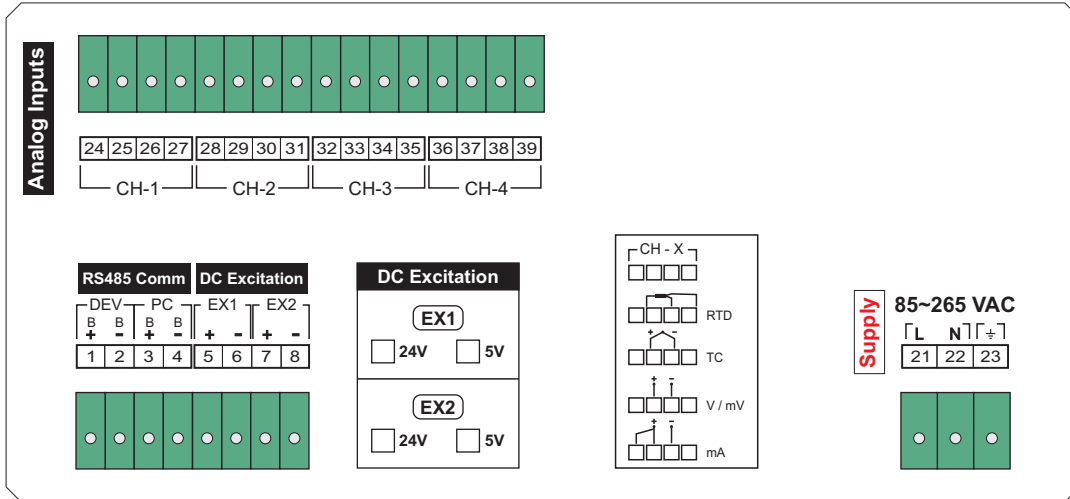
TABLE 1

Input Type	Range (Min. to Max.)
2 / 3-wire, RTD Pt100	-200 to +600°C
Type J Thermocouple (Fe-K)	0 to +960°C
Type K Thermocouple (Cr-Al)	-200 to +1376°C
Type T Thermocouple (Cu-Con)	-200 to +387°C
Type R Thermocouple (Pt / Pt-Rh13%)	0 to +1771°C
Type S Thermocouple (Pt / Pt-Rh10%)	0 to +1768°C
Type B Thermocouple (Pt-Rh6% / Pt-Rh30%)	0 to +1826°C
Type N Thermocouple (NiCrSi / NiSi)	0 to +1314°C

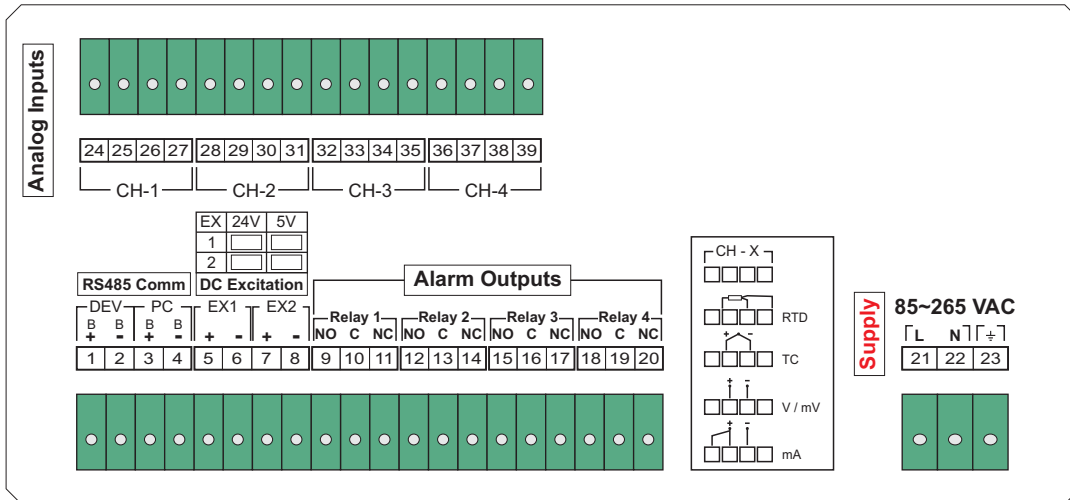
4 / 8 / 16 Channels Data Logger

Back Panel Termination

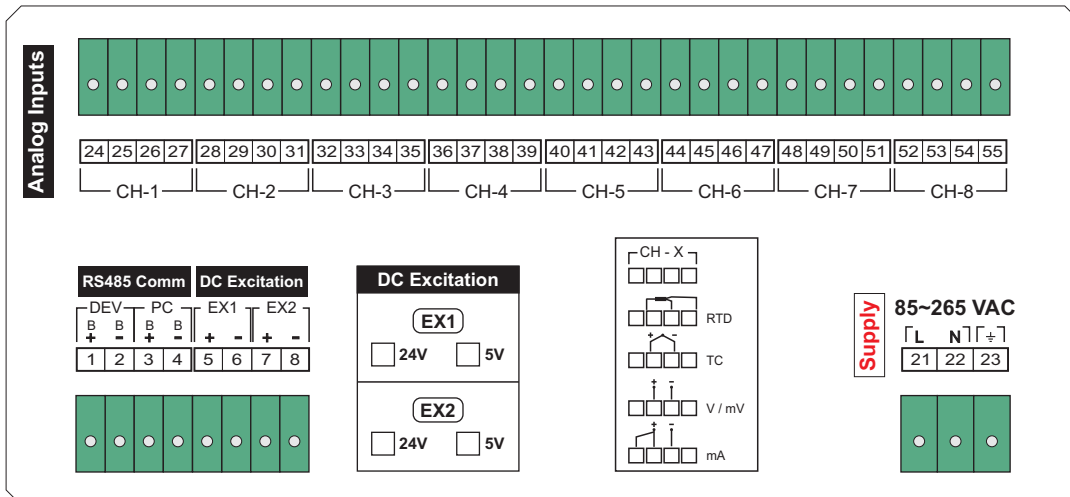
4 Channel Without Alarm Relay Outputs



4 Channel With Alarm Relay Outputs

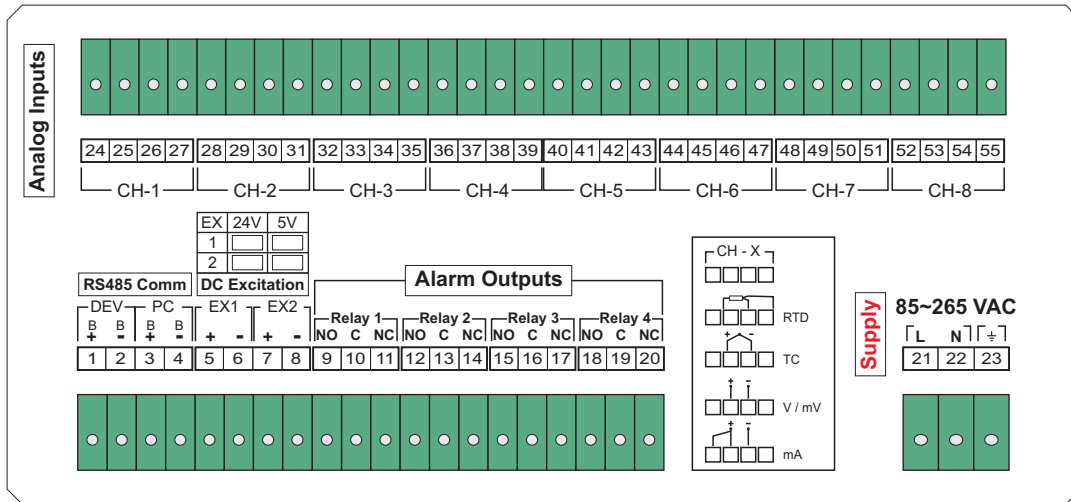


8 Channel Without Alarm Relay Outputs

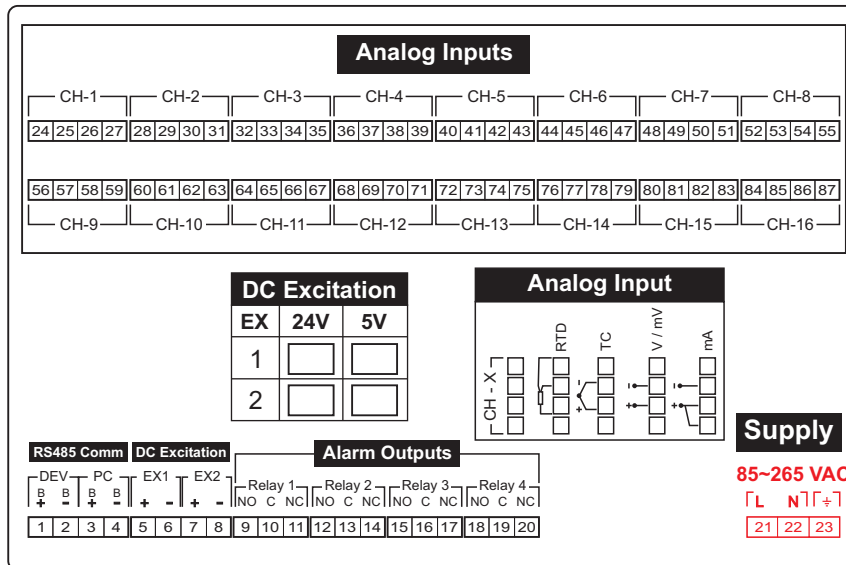


4 / 8 / 16 Channels Data Logger

8 Channel With Alarm Relay Outputs



16 Channel With / Without Alarm Relay Outputs



Ordering Code

Model	Channels	Interface	Excitation Voltage	Alarm Relays	
ScanLog	4	4 Channels	N	None	
	8	8 Channels			
	16	16 Channels	5	5 VDC @ 15 mA	
		PD	Pen-Drive	24	24 VDC @ 40 mA
		PC	Personal Computer		
				N	None
				4	4 Relays

Example Code

ScanLog - 4 - PD - 24 - 4

4 Channel, Pen-Drive Interface, 24 VDC @ 40 mA Excitation Voltage, 4 Alarm Relay Outputs

Process Precision Instruments (An ISO 9001 : 2008 Company)

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