

4 / 8 Channels Process Data Logger

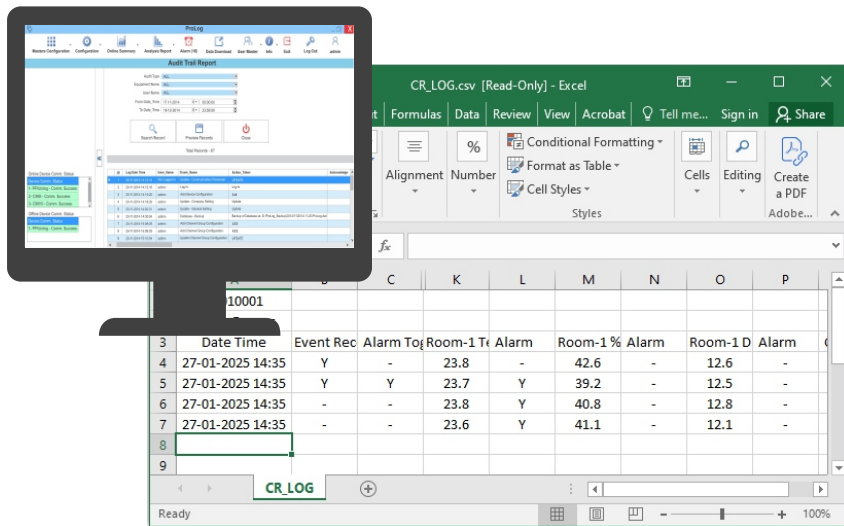
ARC 0408R

4 / 8 Universal Analog Input Channels
Huge Built-in Memory : 2,29,376 Records
Selectable PC / Pen-Drive Record Transfer Options
128 x 64 Graphic Display
¼ DIN (96 x 96) Compact Enclosure

Process Precision Instruments

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Salient Features

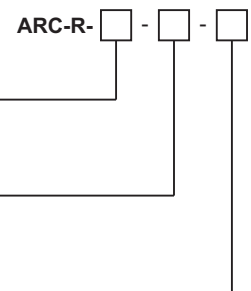
- 128 X 64 Monochrome Graphic Display & 4 Tactile Keys
- 4 / 8 Universal Analog Channels
- Independent Jumper-less Input Type Selection :
Thermocouples, RTDs, mV, V, mA
- 5V/12V/24V DC Excitation Voltage Outputs
- Fast Channel Update : Less than 1 Second (approx 700 mSec)
- 4 Programmable Soft Alarms per Channel
- 4 Common Relay Outputs for Alarms
- User Assigned Channel Names for Easy PV Identification
- Huge Record Storage Capacity : Appx. 2,29,376 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
- 21 CFR Part 11 Compliant Software for PC Interface
- Front Panel USB Port for Record Transfer to Pen-Drive in CSV Format
- Supply Voltage : 85 to 264 VAC, 50/60 Hz
- Size (mm) : 96 (H) X 96 (W) X 84 (D)

General Information

Product Type Universal 4 / 8 Channels Composite
Data Logger with PC / Pen-Drive Interface

Ordering Code

Channels
4 : 4 Universal Analog
8 : 8 Universal Analog
Excitation
05 : 5VDC 12 : 12VDC 24 : 24VDC
Notes :
1. Standard : 24VDC
Power Supply
AC : 85~265 VAC
DC : 20 to 32 VDC



Example Code 1 : ARC-R-8-24-AC
Channels : 8 Universal Analog
Excitation Output : 24VDC
Power Supply : 85 ~ 265 VAC

Example Code 2 : ARC-R-4-05-DC
Channels : 4 Universal Analog
Excitation Output : 5VDC
Power Supply : 20 to 32 VDC

Quantity 1 Unit

Accessories (Optional) USB to RS485 Convertor

Similar Products ScanLog Series
UniLog Series

Display	128 X 64 Monochrome Graphic LCD (Black Font on White Background)
Keys	4 Tactile Switches PAGE, DOWN, UP, ENTER

Number of Channels	4 / 8
Input Types	Thermocouples : J, K, T, R, S, B, N, E RTD : Pt100, Pt1000 (3-Wire) DC mV : 0 to 80 mV, 0 to 160 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 : ± 0.2% of reading for J, K, T, E (Excluding CJC) ± 0.4% of reading for R, S, B, N (Excluding CJC) CJC : ± 1.5 °C (Specified over 18 to 37 °C) RTDs : ± 0.2% of reading. Lead Resistance Compensation : Maximum 5Ω per Lead for 3-wire RTD. DC Linear mV / V / mA : ± 0.1% of reading
Thermal Drift	0.01% of Span per °C
Resolution (Settable)	Thermocouples & RTD : 0.1 / 1 (°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 (± 32,768 Counts), Sigma-Delta (ΣΔ)
Channel Update Time	Less than 1 Sec (approx. 700 msec) for all Channels
Input Resistance	> 8 MΩ for Thermocouples, RTD Pt100 & mV Inputs > 47 KΩ for Voltage Input 249 Ω Precision Shunt for mA Input
Common Mode Rejection	> 100dB at 50/60 Hz
Input Protection	ESD : 8KV EFT : 2KV Surge : 1KV
Input Conditioning	First Order Analog R-C Low-Pass Filter + Programmable IIR Digital Filter

Numbers	4, Independent for Each Channel	
Programmable Parameters	Type	: Process Low, Process High
	Setpoint	: Adjustable over Full Range
	Hysteresis	: 1 to 3000 Unit Counts
	Inhibit	: No, Yes
Outputs	Relay Change-over Contacts (Common / NO)	
	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 (Common / NO)
	Contact Rating : 5A @ 250 VAC / 30 VDC (Resistive Load)
	Contact Life : > 50,000 Operations at Rated Voltage / Current

Data Logging

Storage Type	Serial NOR Flash Memory (128M bits)
Storage Capacity	2,29,376 Records
Recording Mode	Continuous, Batch
Recording Interval	Periodic : Programmable from 00 : 00 : 01 to 02 : 30 : 00 (Hour : Minutes : Seconds) Zoom : 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	9VA Max

Physical

Mounting	Plug-in with Panel Mounting Clamps
Overall Dimensions	96(H) X 96(W) X 84(D), mm
Panel Cutout	92(H) X 92(W), mm
Terminals	Pluggable Terminal Blocks
Weight	400 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 : Settable : 1 to 127
	Baud Rate : 9600 bps
	Data Format : 8E1 (8 bit data, Even parity, 1 Stop bit)
	Max. Units per Loop : 31
	Max. Distance : 1200 Meters

Pen-Drive Interface

Pen-Drive Support	USB 2.0, Format : FAT32, Socket : Type A
File Operation	Read <i>Set.txt</i> file Write .csv files (Data Records)

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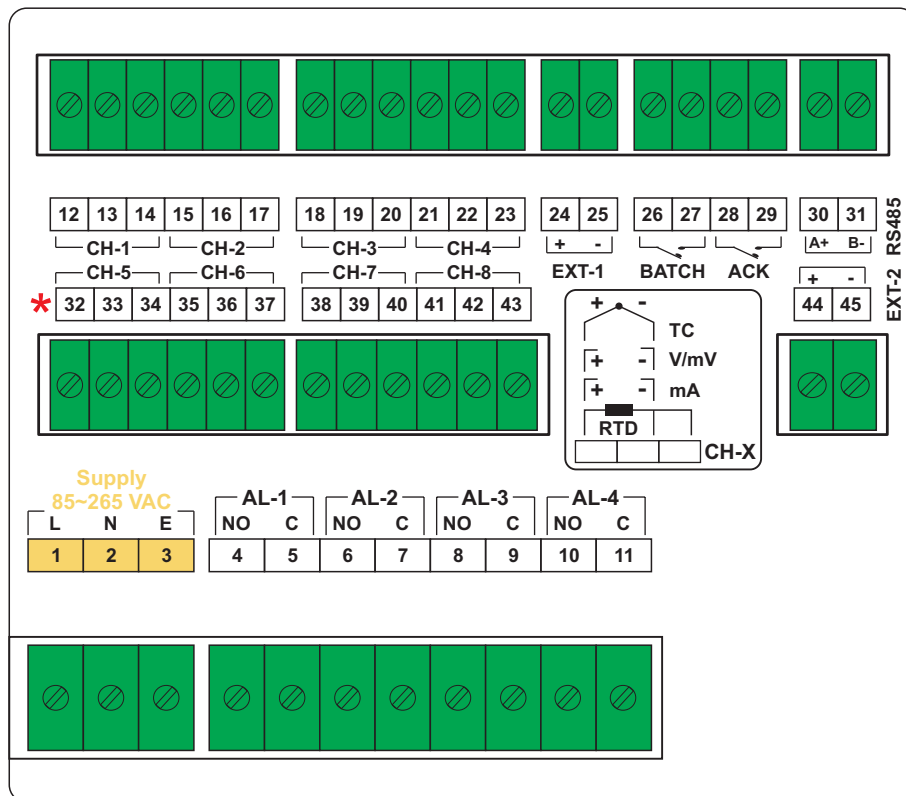
PC Software (USFDA 21 CFR Part 11 Compliant)

Supported Operating Systems (OS)	• Windows Vista • 32 bit / 64 bit Windows 8 & Above
Minimum PC Configuration Requirements	• 2.8 GHz Clock Speed • 32 bit / 64 bit Pentium Dual Core • 40 GB Hard Disk • 2 GB RAM
Features	• Supports Multiple Data Logging Units • Can Be Installed on Windows Server / Non server, and Linux Platforms • Auto Start-up on PC Power-up • Online Display in Graphical and Tabular Forms • SMS, Email, and App based NTFY Push Notifications on Alarm Conditions • Automatic Periodic Uploading of Stored Records • Role-Based Access Control with Authority Levels • User Actions with Digital Signing and Authorization • Automatic Password Expiry and Enhanced Security • Manual and Automated Back-Up Facility with Archiving • Customizable Data Log Reports with User-Selectable Parameters, Channels, and Configurable Titles, Headers, and Footers • Data Log Reports, Alarm Log Reports, History Graphs, and Audit Trail Reports in PDF and Excel Formats • Audit Trail History of Critical Events and User Actions • Web-Based Access from Any Modern Browser • Mobile-Friendly Design for Real-Time Monitoring on the Go • Cloud-Ready Deployment for Scalability • Customizable Themes and Dashboards • Real-Time Collaboration with Multi-User Support • Data Export in Multiple Formats for Analysis and Sharing • Email Report Scheduling for Automated Report Delivery • Paperless Report Review and Approval Workflows with Electronic Signatures

TABLE 1

Input Type	Range (Min. to Max.)
2 / 3-wire, RTD Pt100	-199.9 to +850.0 °C
2 / 3-wire, RTD Pt1000	-199.9 to +850.0 °C
Type J Thermocouple (Fe-K)	0.0 to +960.0°C
Type K Thermocouple (Cr-Al)	-200.0 to +1376.0°C
Type T Thermocouple (Cu-Con)	-200.0 to +387.0°C
Type R Thermocouple (Pt / Pt-Rh13%)	0.0 to +1771.0°C
Type S Thermocouple (Pt / Pt-Rh10%)	0.0 to +1768.0°C
Type B Thermocouple (Pt-Rh6% / Pt-Rh30%)	0.0 to +1826.0°C
Type N Thermocouple (NiCrSi / NiSi)	0.0 to +1314.0°C
Type E Thermocouple (NiCr / Con)	-200.0 to +1000.0°C

Back Panel Termination



Note :

* For 4 Channel version, terminals 32 to 45 are not fitted.

Process Precision Instruments (An ISO 9001 : 2008 Company)

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