

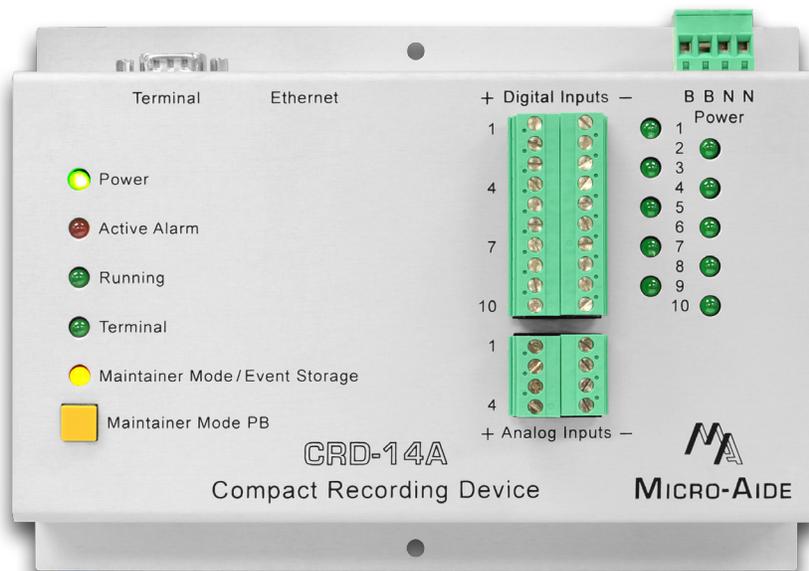
MICRO-AIDE



www.micro-aide.com

CRD-14A

COMPACT RECORDING DEVICE



FEATURES & CAPABILITIES

- ▶ Provides a low cost and easy-to-use recording solution
- ▶ 10 Digital and 4 Analog Inputs
- ▶ 10 user-controlled Counters
- ▶ 8 Virtual, 8 Timer and 20 Alarm Inputs, all programmable
- ▶ Memory capacity of 297,045 records
- ▶ Records stored for up to 128 days
- ▶ Non-volatile flash memory, no internal batteries required
- ▶ Real-time clock drift of less than ± 8 sec. per month
- ▶ Automatic Daylight Saving Time adjustment
- ▶ Precise flash rate reporting
- ▶ Compact, portable size
- ▶ Minimum 3800 Vdc and 2000 Vac of isolation

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SPECIFICATIONS

Physical

Size
Length: 8.2"
Height: 5.9"
Depth: 2.6"
Weight
1.3lb.

Environmental

Storage
Temperature: -50 °C to 85 °C
Humidity: 0 to 95 %, non-condensing
Operating Environment
Temperature: -40 °C to 72 °C
Humidity: 0 to 95 %, non-condensing

Mounting

Shelf or backboard

Construction

Chassis
Fully enclosed, anodized aluminum
Externally accessible LEDs and connectors
Electrical
All components mounted on conformal coated, internal PCB

Power

Voltage
Range: 9 to 36 Vdc
Consumption
Maximum: 1.8 W

Isolation

Power
Minimum: 3800 Vdc from B and N terminals to chassis and inputs
Digital Inputs
Minimum: 3800 Vdc to any terminal
Analog Inputs
Minimum: 3800 Vdc to any terminal
Input to Adjacent Input
Digital: minimum 3800 Vdc
Analog: minimum 3200 Vdc

Capacities

Inputs
Digital: 10, all opto-isolated
Analog: 4, DC voltage only
Virtual: 8, user-assigned
Timer: 8, user-assigned
Alarm: 20, user-assigned
Event Storage
297,045 records, expandable to 1,264,533 records

Digital Inputs

Input Impedance
10KOhms minimum, opto-isolated
Range
On State: 9 to 36 Vdc
Off State: 0 to 1 Vdc
Event Validation Time
.001 to 32.767 seconds, compatible with fixed rate flashing circuits

Analog Inputs

Input Impedance
10 MOhms minimum
Range
1 scale, +51.1 Vdc
Typical Accuracy
±.15 Vdc
High and Low Limit Values
0 to 51.1 Vdc in multiples of .1 Vdc
Event Validation Time
Fast filter setting

Counters

Quantity: 1 per Digital Input with disable feature
Range: 0 to 65,535 with auto-rollover
Increment: advances with On or Off transition as selected by user

Virtual Inputs

Definitions
Any logical association shared by 1 to 4 variables (i.e., Digital, Analog, Timer or Virtual Inputs)
Assigned by defining the state of the Virtual Input for each combination of variable states
Reporting
Creates standard Event Records

Timer Inputs

Programming
Any input can be assigned as a trigger or terminating source
On or Off events can be assigned as a trigger or terminating source
High and Low Limit Values
0.0 to 999.9 seconds in multiples of .1 seconds
Reporting
Measured Time is reported in each Timer Input Event Record
Violation of Limit Values are also reported

Alarm Inputs

Usage
User-defined Alarm conditions create Event Records that are logged to memory
Definitions
As defined by Alarm Configuration Table
Event Validation Time
0 to 99,999 seconds

Temperature Sensing

High and Low Limit Values
-67 °F to 257 °F
Usage
Saves Event Record when internal temperature crosses either Limit Value

Memory

Type
Non-volatile, Event Records and Setup Database are stored in flash memory chip
Newest data over-writes oldest data, 129th day over-writes first day
Storage Longevity
Infinite with power off
Rated for 100,000 write operations

Connectors

Power, Digital and Analog Inputs
Detachable, tension clamp, 12 to 22 AWG
Terminal Port
DE-9 male, configured as modified DCE
Ethernet Port (optional)
RJ-45 female

Ports

RS-232
Quantity: 1, for use with a PC, set for ANSI terminal emulation
Terminal Emulation: ANSI
Baud Rates: 300 to 115,200
Bit Format: 8-N-1
Ethernet (optional)
Type: 10/100 Base-T
Protocols: TCP/IP, Telnet, SNTP-Multicast
Usage: provides remote or local access via TCP/IP
Data transfer rates of 4.70 Mbps
User-assignable IP Address, port, sub-net mask

Indicators and Controls

System Status LEDs (5)
Power: green
Active Alarm: red, illuminates when one of more Alarm Inputs are On
Running: green, flashes once per second to indicate processor is running
Terminal: green, flashes with send and receive data
Maintainer Mode/Event Storage: yellow, on when Maintainer Mode is active; blinks momentarily when an Event Record is logged to memory
Input Status LEDs (10)
Digital Inputs 1-10: green, illuminates when input is On
Ethernet Port LEDs (2 optional)
Green: link established
Yellow: data activity
Maintainer Mode Pushbutton
Enables and disables Maintainer Mode

Internal Clock

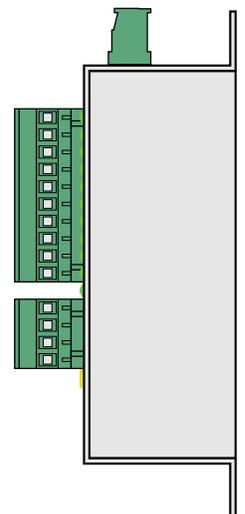
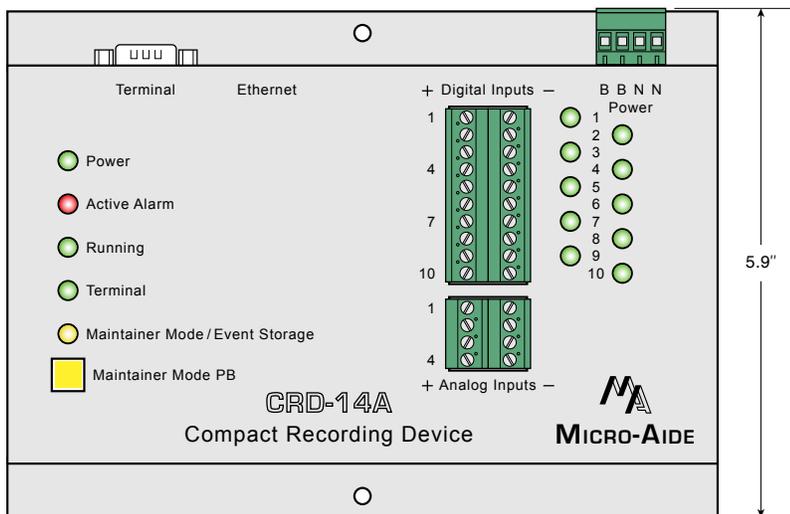
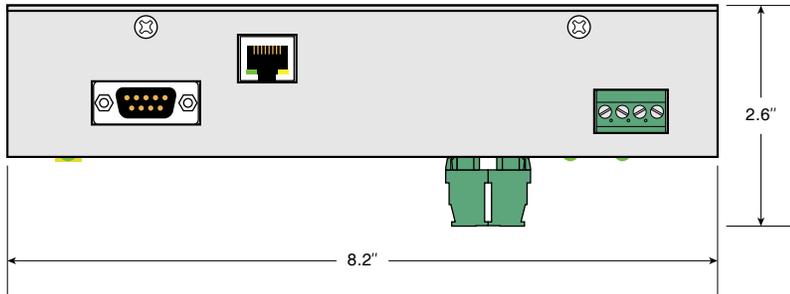
Accuracy
Typical: ±8 seconds per month (3ppm)
Resolution
.001 seconds for all Event Records
Volatility: maintains accuracy for minimum of 30 days with loss of power
Sync
SNTP-Multicast (with Ethernet option)
Operation
Time Zones: selectable from 7 different North American settings
Daylight Saving Time: enable or disable automatic adjustment
Leap Year: automatically adjusted

Password Protection

Administrative Level
Access: unrestricted to all functions
Length: 8 characters
Restricted Level
Access: Event Record and Setup Database viewing only
Length: 8 characters

MICRO-AIDE reserves the right to make changes, at its sole discretion, to any specification listed herein.

DIMENSIONAL DRAWING



MOUNTING DIMENSIONS

