

MICRO-AIDE



www.micro-aide.com

CAR-24 CROSSING ALARM REPORTER



FEATURES & CAPABILITIES

- ▶ Automatically detects and reports numerous crossing failures
- ▶ Reports alarms to a server via a VPN (requires external cellular modem) or LAN
- ▶ 20 different alarms can be defined to report real-time crossing status
- ▶ Message forms include state of XR, gates, AC power and battery voltages
- ▶ Automatic IP and server name resolution via DHCP and DNS
- ▶ Uses SNTP-Unicast method to provide accurate time stamping
- ▶ Companion product to Micro-Aide's CAR-14
- ▶ 20 Digital and 4 Analog Inputs
- ▶ 8 programmable Virtual Inputs
- ▶ Includes Event Recorder features from Micro-Aide's CWR-24E

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SPECIFICATIONS

Physical

Size (with mounting brackets)
L: 9.5" H: 7.7" D: 3.2" **Weight:** 2.6lb.

Operating Environment

Temperature: -40°C to 72°C

Humidity: 0 to 95%, non-condensing

Mounting

Shelf or backboard, includes mounting brackets

Construction

Fully enclosed, anodized aluminum with externally accessible keypad, LEDs and connectors

All components mounted on conformal coated, internal PCBs

Power

Voltage
Range: 9 to 36 Vdc

Consumption
Maximum: 3W

Isolation

Power Terminals, Digital and Analog Inputs, Ethernet Port
Minimum: 3800 Vdc to chassis and any terminal

Alarms

Quantity: 20 total, user-defined

Types: Set, Cleared and periodic Health Check

Definitions

User-assigned inputs, input states and validation times qualify each Alarm

Operating Modes

Automatic: messages sent via VPN or LAN using DNS or fixed IP Addressing

Maintainer Mode: disables Alarm transmission while crossing is being tested or repaired

Inputs

Types

Digital: 20, all opto-isolated

Analog: 4 total, voltage only

Virtual: 16, user assigned

Timer: 16, user assigned

Input Impedances

Digital: minimum 10KOhms

Analog: minimum 10MOhms

Range

Digital: 9 to 36 Vdc (On), 0 to 2 Vdc (Off)

Analog: 7 scales for Vdc, Vac, Adc, Aac

Analog Inputs

Typical Accuracies: ±.15V, ±1.5V or ±.2A

High and Low Limits: user assigned, varies with selected scale

Alarm and Input Validation Times

Alarm: as defined by Alarm Configuration Table, 0 to 99,999 seconds

Digital: .001 to 32.767 seconds

Analog: fast and slow filter settings

Ports

RS-232

Quantity: 1, for use with a PC, set for ANSI terminal emulation

Baud Rates: 300 to 115,200

Bit Format: 8-N-1

Ethernet

Type: 10/100 Base-T, to cell modem or LAN

Protocols: HTTP-Get, TCP/IP, Telnet, SNTP-Unicast, SNTP-Multicast

User interface: provides remote or local access via TCP/IP connection

Ports (continued)

USB Host

Compatible with FAT-32 flash drives, used to save selected Event Records to flash drive

USB Device

Eliminates need for serial comm port

Indicators

Active Alarm: red, illuminates when Alarm is active

Message Sent: green, illuminates for 5 seconds

Terminal Mode: green, flashes with data

Controls

Keypad: 20 keys, provide for front panel access

Memory

Capacity: 302,084 Event Records std.

Type: non-volatile for Event Record and Setup Database

Internal Clock

Accuracy

Typical: ±8 seconds per month (3ppm) when not synchronized

Volatility: maintains time for 30 days without power

Sync

SNTP-Unicast: via primary or secondary time servers, once per day at 00:05:00

SNTP-Multicast: per time server schedule

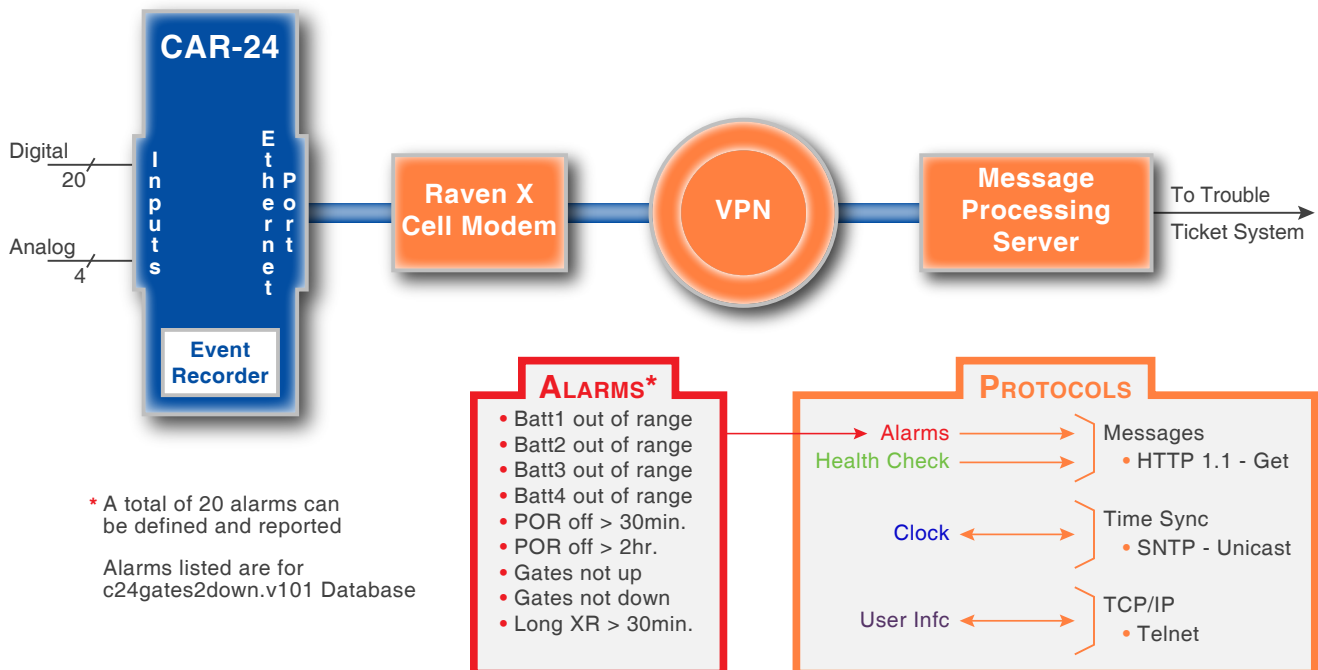
Operation

Time Zones: 7 different North American settings

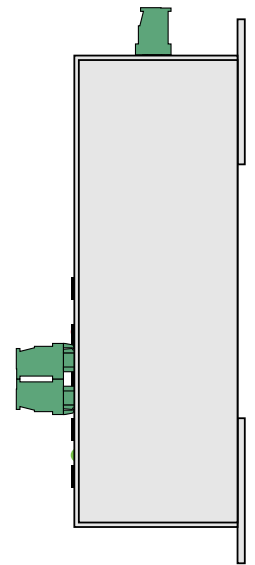
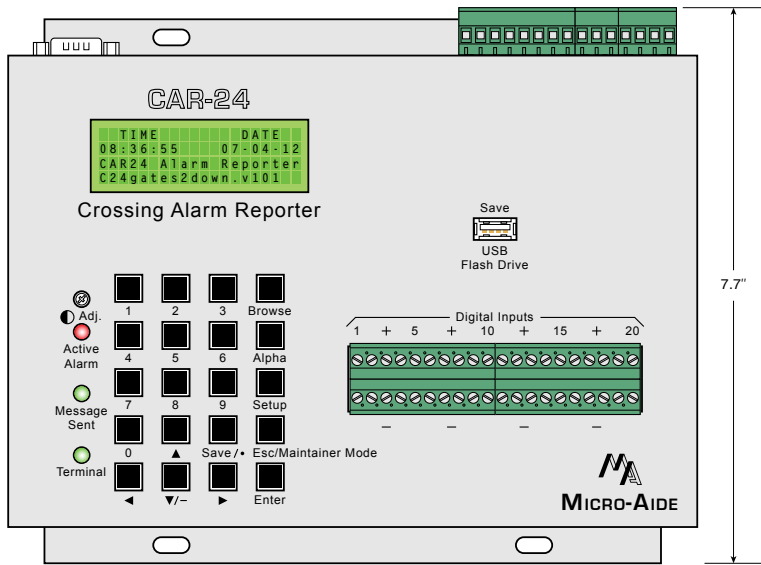
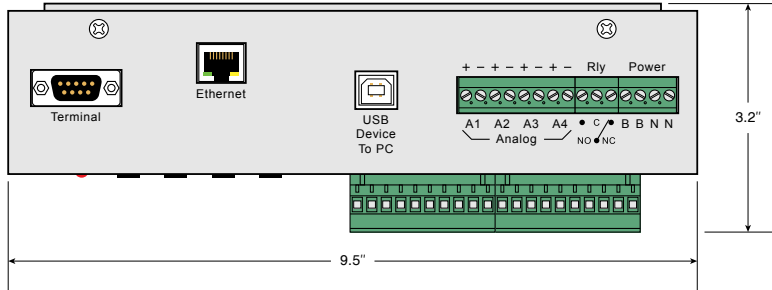
Automatic Adjustments: Daylight Saving Time and leap year

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

MESSAGE HANDLING



DIMENSIONAL DRAWING



MOUNTING DIMENSIONS

