# MICRO-AIDE



# CAR-40AK

## 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-24AK
- > 32 Digital and 8 Analog Inputs
- ▶ 8 programmable Virtual Inputs
- ► Includes Event Recorder features from Micro-Aide's CWR-40A

### **SPECIFICATIONS**

#### **Physical**

Size (with mounting brackets)
L: 10.4" H: 9.0" D: 3.2" Weight: 3.2lb.

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: 3.0W

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

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: 32. all opto-isolated

Analog: 8, voltage or current (optional)

Virtual: 8, user-assigned Timer: 16, user-assigned Input Impedances

Digital: minimum 10 KOhms Analog: minimum 10 MOhms

Range

Digital: 9 to 36 Vdc (On), 0 to 1 Vdc (Off) Analog: 7 scales for Vdc, Vac, Adc, Aac

Analog Inputs

Typical Accuracies: ±.15V, ±1.5V or ±.2A High and Low Limits: user-defined, varies with selected scale

**Alarm and Input Validation Times** 

Alarm: as defined by Alarm Configuration Table, 0

to 99,999 seconds

Digital: .01 to 327.67 seconds Analog: fast and slow filter settings

**Ports** 

RS-232

Quantity: 1, for use with a PC, set for ANSI termi-

nal emulation

Baud Rates: 300 to 115,200

Bit Format: 8-N-1

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

Keypad: 20 keys, provide for front panel access

Capacity: 230,924 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 serv-

ers, 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.





