eRADC

ENHANCED COMMUNICATIONS

The multi-function eRADC (ethernet-enabled Remote Area Data Collector) adds 10/100 Mbps wired Ethernet capability to the standard RADC, improving the speed and reliability of communications with StarWatch™ front-end software. Eliminating the need for serial or copper wiring and the traditional Poller Mux layer of equipment, the unit allows users to utilize existing network infrastructure for all communications.

ETHERNET FEATURES

- Supports IEEE 802.3 / 802.3u-100Base-TX / 10Base-T Physical Layer
- 10/100 Mbps, Full / Half duplex auto negotiation
- Supports UDP & TCP/IP

DATA COLLECTION AND PROCESSING

The eRADC acts as a network controller for the StarWatch suite of security products, offering a versatile communications interface for door controllers, alarm panels, and access/secure keypads. As an intelligent field device, the unit interfaces with exterior components and intrusion detection sensors over an ArcNET LAN (Local Area Network) and through on-board I/O connections, including eight tamper-protected status inputs and eight relay outputs. Total point count can be expanded to 32 inputs and 32 outputs via seamlessly connected RIOX expansion modules. The eRADC efficiently collects and processes data received from multiple connected devices and reports relevant information to the system PMC data center.

CORE CAPABILITIES

- Eight on-board inputs and eight outputs, expandable to up to 32 inputs and 32 outputs via RIOX modules
- Incorporates full anti-passback functions
- Four RS232 / RS485 communication ports provide interface to intelligent sensors and additional StarWatch units
- Monitors power supply, low battery, and cabinet housekeeping points
- LED indications for operational status
### Processing
- **Processor**: Intel 80386 EX running at 25MHz
- **Memory**: Flash 512K x 16
- **Memory**: SRAM 2x512Kx16 battery backed, expandable to 5x512Kx16

### Communications
- **Interface**: On-board ArcNET controller operating at speeds up to 2.5 Mbit per second over isolated RS485 or fiber optic
- **Ethernet UDP network interface**:
- **4 Serial Ports**:
  - Port 1: RS232, RS485, Bell 202 modem
  - Port 2: RS232, isolated RS485
  - Port 3: RS232, RS485
  - Port 4: RS232, RS485
- **Line Security**: Interface to DES encryption devices
  - Class B line security with 6 months non-repeating messages

### Measurements / Commands
- **Inputs**: 8 on-board tamper protected inputs, expandable to 32 with six 4-point RIOX cards
  - Capable of detecting normal, alarm, tamper short, and tamper open conditions
- **Outputs**: 8 on-board relay outputs, expandable to 32 with six 4-point RIOX cards
  - Each contact is Form C selectable as 1 Form A or 1 Form B, rated for 10A at 125VAC
- **Design**: All inputs and outputs meet requirements of UL 1076 surge protection

### Power
- **Input**: 120/208/250VAC, 60Hz
  - 220VAC, 50Hz
- **Output**: 3A at 13.8V for charging backup battery
  - 1.1A at 12VDC for powering up to 32 sensors
  - 600mA at 20VDC for powering JSIDS sensors
- **Battery**: 8 hour battery backup
  - Charger disconnects for 10.5V low voltage disconnect ±10% and 15.7V high voltage disconnect ±10%
- **Consumption**: 18W typical

### Environmental
- **Operating**: -20 to +70°C
- **Storage**: -20 to +70°C
- **Humidity**: 5 to 95% non-condensing
- **Vibration**: Meets UL 1076 jarring tests
- **Radiation**: Certified to FCC part 15, class B
- **Packaging**:
  - Tamper protected NEMA 1 enclosure for interior applications
  - Tamper protected NEMA 4 enclosure for exterior applications

---

©2019 DAQ Electronics, LLC. All rights reserved.

This literature is for guidance only. It does not constitute recommendations, representation, or advice, nor is it part of any contract. Our policy is one of continuous product improvement, and the right is reserved to modify the specifications contained herein without notice. All trademarks and names mentioned in this document are duly acknowledged.