

# Chameleon RS-232 Network Interface Module (NIM-4)

## High-Performance Programmable Controllers for Extreme Environments



The Chameleon RS-232 Network Interface Module (NIM-4) offers communications using FairNET, Modbus ASCII (master or slave), Modbus RTU (master or slave), Custom ASCII, or Custom Binary protocols. FairNET provides both deterministic and non-deterministic messaging, automatic bus mediation, and a robust master-slave architecture.

As with all Chameleon modules, NIM-4 units are hot-swappable: should the need arise to replace one, you can simply swap the front panel (with attached processing board) and the unit is back online—there is no need to shut off the power and there is no need to detach connectors. They also provide unequalled ruggedness. They are specifically designed for sustained operation in severe environments, including those characterized by extreme shock, vibration, electro-magnetic interference, temperature, and/or humidity. Its fully-sealed enclosure (sealing end-caps not pictured) ensures long-lasting operation in the grimmest settings.

### ENVIRONMENTAL CHARACTERISTICS

|   |                             |
|---|-----------------------------|
| Operating Ambient Temperature Range         | -40°C to 65°C               |
| Storage/Transport Ambient Temperature Range | -40°C to 85°C               |
| High Impact Shock                           | MIL-STD-901D                |
| Mechanical Vibration                        | MIL-STD-167B                |
| Electro-Magnetic Interference               | MIL-STD-461E (Pending)      |
| Facial/Housing Protection                   | NEMA 1,2,4,4X,5,6,12,12K,13 |
| Operating Humidity                          | 100% RH, Condensing         |

### ELECTRICAL CHARACTERISTICS

|  |   |
|--|---|
| Maximum Power Consumption                          | 2.8W  |
| Max baud rate                                      | 256 kbit / second   |
| Electrostatic Discharge Protection                 | +/- 15 KV Human Body model                                    |
| Signal Electrical Isolation from Control Circuitry | 1500 VDC  |
| Handshaking Signals                                | CTS, RTS, DTR, and DSR  |
| Supported Cable Diameters / Wire Gauges            | Two glands 0.24"-0.47" and two glands 0.16"-0.31" / 16-28 AWG |

### OPERATOR INTERFACE

|                         |  |
|-------------------------|--|
| Status Readout          | Three-color (red/yellow/green) Indicator |
| IrDA Wireless Interface | 115KBPS SIR                              |

### PHYSICAL CHARACTERISTICS

|                        |               |
|------------------------|---------------|
| Weight                 | 1.35 pounds   |
| Front Panel Dimensions | 2.5" W x 6" L |
| Enclosure Height       | 3" H          |