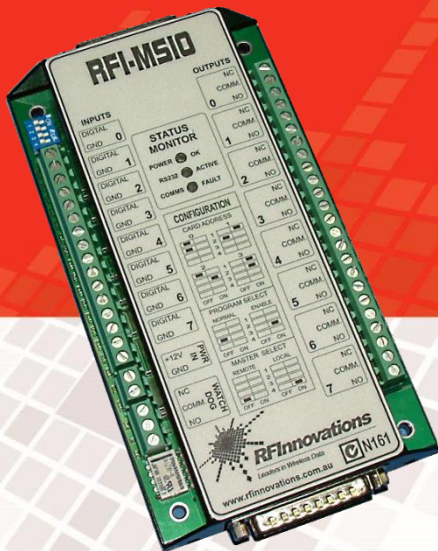




RFInnovations

Leaders in Wireless Data

an **STI Engineering** product



Modbus RTU Mini-SCADA Unit

The RFI-MSIO is a Modbus capable low cost Mini-SCADA unit ideal for remote telemetry applications. The unit provides access to analog and digital inputs and outputs in a simple, ready to use package with no need to program.

The unit is compatible with all Modbus RTU devices and ready to use with RF Innovations data radio networks.

Features

- Operates as a Modbus RTU Slave
- Modbus RTU Master operation for small point-to-multipoint systems
- 8 inputs analog or digital
- 8 outputs analog or digital
- Analog standard 0-5V or 4-20mA
- Digital 0-5V or Relay (dry contact)
- Can be installed back-to-back for additional I/Os
- LED status indicators
- Watchdog timer and output for link fail indication and fall-back
- Can be installed without programming

Applications

The RFI-MSIO is suited for applications in Utilities, Mining, Agriculture and Transport industries where reliable wide area I/O transfer is critical.

The RFI-MSIO can be used in a point-to-point mode out of the box, providing simple transfer of the available inputs and outputs, or as a part of a larger telemetry and SCADA system.

The unit can be used in large scale telemetry and SCADA systems for providing an easy to use alternative to remote PLC slave units.

STI Engineering

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Specifications

Simple Operation	The RFI-MSIO can be used 'out of the box' with no need for ladder logic programming
Master Mode	For point-to-point systems the unit can be put into Master mode via DIP switches, removing the need for a complex Modbus Master PLC or software
Watchdog Output	The watchdog timer output can be used to determine the operation of the system and to control fall back operation of a remote station in the case of network failure
Expandable I/O	Use two units back to back to expand to 16 inputs and 16 outputs
LED Status Indicators	Status indicators show the operation of the unit, serial communication status and system communication status
Radio Enabled	Protocol communication and timing settings are ready to use over a cabled or wireless network
Modbus RTU Enabled	Industry standard Modbus RTU implementation means the unit can be seamlessly added to existing control systems

<p>PHYSICAL Dimensions: 190mm x 85mm x 35mm Weight: 260g Construction: Powder coated mild steel chassis and cover</p> <p>GENERAL Operating Voltage: 10V to 16V DC negative ground (24VDC option available) Operating Current: No I/O loading @12.5V 30 mA nominal Operating Temp: -10 to + 60°C Operating Humidity: Up to 90% non-condensing relative humidity Mode Configuration: via DIP switches Parameter Configuration: via terminal</p> <p>I/O SYSTEM I/O Refresh Rate: 10Hz (100ms) Protocol: Modbus RTU over serial (www.modbus.org) Protocol Resolution: 16 bit Serial Interface: RS232C Interface speed: 300 to 38400 bps software selectable</p>	<p>DIGITAL Outputs: 0-5V or 3-wire Relay (factory set) Inputs: 0-5V internal pull up Protection: Over voltage, reverse voltage and short circuit</p> <p>ANALOG Outputs: 0-5V or 4-20mA (factory set) Inputs: 0-5V internal pull up or 4-20mA (factory set) Protection: Over voltage, reverse voltage and short circuit</p> <p>CONNECTORS Data: Custom DB25 Female connector Power: Terminal block Expansion card: Custom DB25 Male connector</p>	<p>OPTIONS RFI-MSIO - XXYYZaabb</p> <p>Where XX = IC: Independent Card PC: Primary Card EC: Extension Card</p> <p>YY= 12: 12V nominal input voltage 24: 24V nominal input voltage</p> <p>Z= A: 8 Digital In, 8 Relay Out B: 2 Analog 0-5V In, 6 Digital In, 2 Analog 0-5V Out, 6 Relay Out C: 4 Analog 0-5V In, 4 Digital In, 4 Analog 0-5V Out, 4 Relay Out D: 2 Analog 4-20mA In, 6 Digital In, 2 Analog 4-20mA Out, 6 Relay Out E: 4 Analog 4-20mA In, 4 Digital In, 4 Analog 4-20mA Out, 4 Relay Out</p> <p>aa= MM: System Master S1 to S4: Slave of Address 1 to 4</p> <p>bb= PP: Point to point network N2 to N4: Network with 2 to 4 slaves</p>
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Specifications subject to change without notice V080904

