



## Modbus Master/Slave Communication Module 3100-MCM

*Applications using the Modbus Master/Slave Communication Module can be found in many industrial sectors and in the following applications*

- Foreign device data concentrator
- Pipelines and offshore platforms
- Food processing
- Mining
- Pulp and paper
- SCADA communications

### How to Contact Us: Sales and Support

All ProSoft Technology products are backed with unlimited technical support. Contact our worldwide Technical Support team directly by phone or email:

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## Modbus Master/Slave Communication Module

### 3100-MCM

The inRAx Modbus Master/Slave Communication Module allows Rockwell Automation PLC processors to interface easily with other Modbus protocol compatible devices.

Compatible devices include not only Modicon PLCs (which all support the Modbus protocol) but also a wide assortment of end devices. The module acts as an input/output module between the Modbus network and the Rockwell Automation backplane. The data transfer from the processor is asynchronous from the actions on the Modbus network.

### Features and Benefits

The inRAx Modbus Master/Slave Communication Module is designed to allow PLC processors to interface easily with Modbus protocol-compatible devices and hosts.

The inRAx module acts as an input/output module between the Modbus network and the Rockwell Automation backplane. The data transfer from the PLC processor is asynchronous from the actions on the Modbus network.

Many host SCADA packages support the Modbus protocol, while devices commonly supporting the protocol include several PLCs, as well as many other third party devices in the marketplace. (For a partial list of devices that speak Modbus, please visit the ProSoft Tested section of the ProSoft Technology web site).

### Functional Specifications

This product supports the following general capabilities:

- Up to 100 entries in the command list, each fully configurable for function, slave address, register to/from addressing and word/bit count(Master port)
- Continuous polling of command list(Master port)
- Support for the storage and transfer of up to 4000 registers to/from the PLC
- Event driven bit and register write commands (Master port)
- Full radio, modem and multi-drop support
- Supports RS-232C, RS-422 and RS-485 interfaces
- Communication error codes and counters returned to ladder logic(Slave port)
- Communication error codes returned to ladder logic on a per command basis (Master Port)

The following Modbus features have been implemented in both configurations:

- RTU mode (binary) with CRC-16
- ASCII mode with LRC error checking
- Broadcast commands
- 125 word reads and writes
- Floating Point data movement supported
- Function codes supported:
  - 1 : Read output status 2 : Read input status
  - 3 : Read multiple data registers
  - 4 : Read input registers
  - 5 : Force single coil (Write single bit)
  - 6 : Preset (Write) single data register
  - 15 : Force multiple coils (Write multiple bits)
  - 16 : Preset (Write) multiple data register
- Configuration via simple ladder logic (Example provided with each product)

## Hardware Specifications

Specification	Description
Backplane current load	3100 module for PLC 0.65 A
Operating temperature	0 to 60°C (32 to 140°F)
Storage temperature	-40 to 85°C (-40 to 185°F)
Relative humidity	5 to 95% (non-condensing)
LED Indicators	Module status Backplane transfer status Serial port TX/RX activity LED Serial port error LED status
Application serial ports	DB-25F3100 module RS-232/422/485 jumper selectable RS-422/485 screw termination included (two per module) RS-232 hardware handshaking (RTS/CTS, DTR) 500V optical isolation from backplane

## Additional Products

ProSoft Technology offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

- 3150-MCM**      Modbus Master/Slave  
Communication Module for SLC  
platform

Visit our web site at <http://www.prosoft-technology.com> for a complete list of products.

## Ordering Information

To order this product, please use the following:

- 3100-MCM**      Modbus Master/Slave  
Communication Module

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft distributors near you, go to <http://www.prosoft-technology.com>

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