



MODBUS ROUTER

MODBUS ROUTER 485

The Modbus Routers provides intelligent data routing between EtherNet/IP and Modbus RTU (RS232 & RS485), and Modbus TCP.

- Intelligent routing to Logix
- Supports reactive tag mapping
- Supports scheduled tag mapping
- Available for RS232 or RS485
- Isolated RS232 port
- Supports Modbus TCP or Modbus RTU
- Easy to install and configure



Overview

The Modbus Router provides intelligent data routing between EtherNet/IP and Modbus (serial Modbus-RTU or Ethernet Modbus-TCP). NOTE: The Modbus Router 485 can communicate on serial RS485 whilst the Modbus Router can communicate on serial RS232. The Modbus Router allows the user to integrate Modbus devices into a Rockwell Logix platform (e.g. ControlLogix or CompactLogix) with minimal effort.

The Modbus Router is able to transfer data from various Modbus devices to a maximum of three Logix controllers. The module operates in one of three modes, simplifying the configuration for all applications.

Mode	Description	Message Initiator
Reactive Tag	The Modbus Router will convert Modbus messages to Logix controller tag reads or tag writes. (Modbus Slave)	Remote Device
Scheduled Tag	The Modbus Router transfers data between a Modbus device and a number of Logix tags, using a preconfigured scheduled. (Modbus Master) No Logix or remote device configuration is required.	Modbus Router
Unscheduled	The Modbus Router transfers messages received from a Logix Message Instruction. (Modbus Master)	Logix (Msg)

The Modbus Router is configured using the Aparian Slate application. Slate offers various configuration methods, including a controller tag browser.

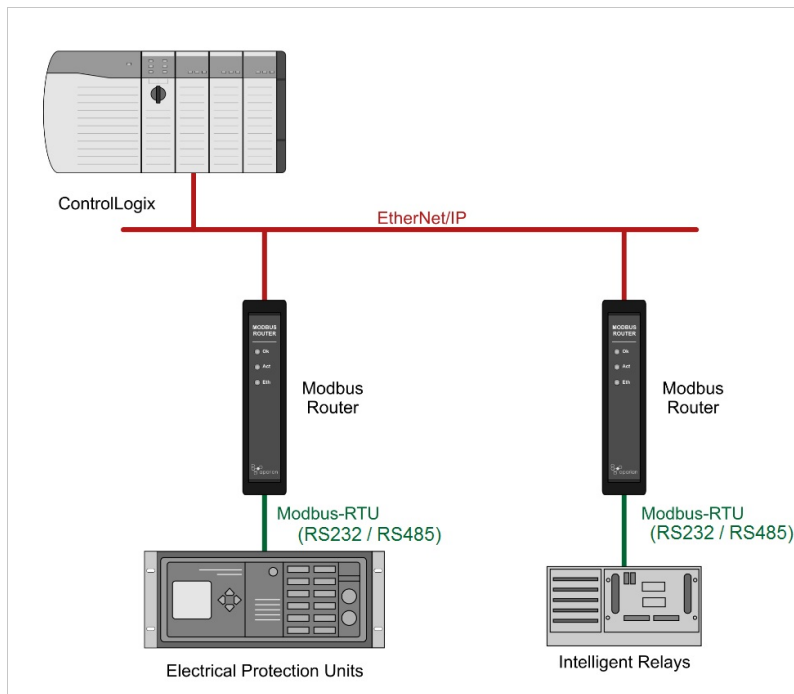
The module can operate in both a Logix "owned" and standalone mode. With a Logix connection the input and output assemblies will provide additional diagnostics information which will be available in the Logix controller environment.

The Modbus Router allows the user to integrate Modbus devices into a Logix system with minimal effort. No copying or mapping of data in the Logix controller is required as the Modbus Router writes directly into Logix tags.

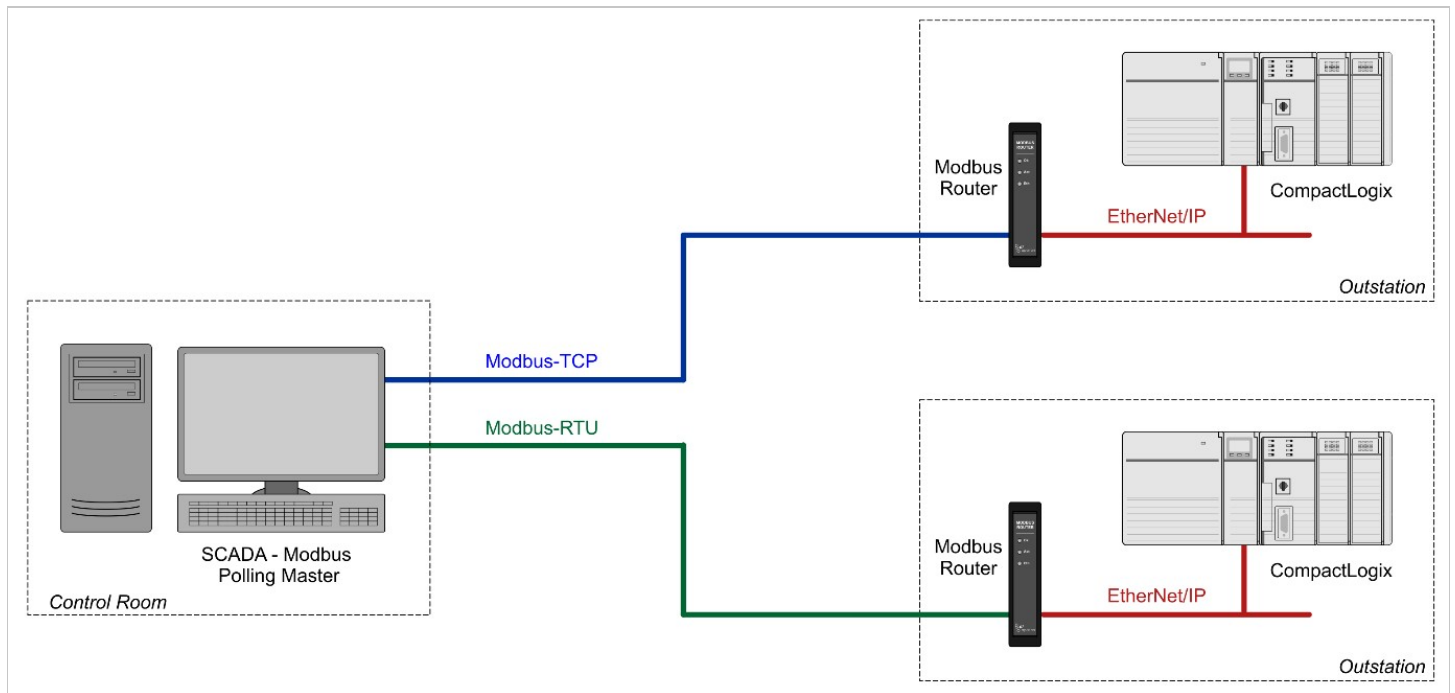
The module also provides a range of statistics and traffic analyser to help fault find any problems.

Application

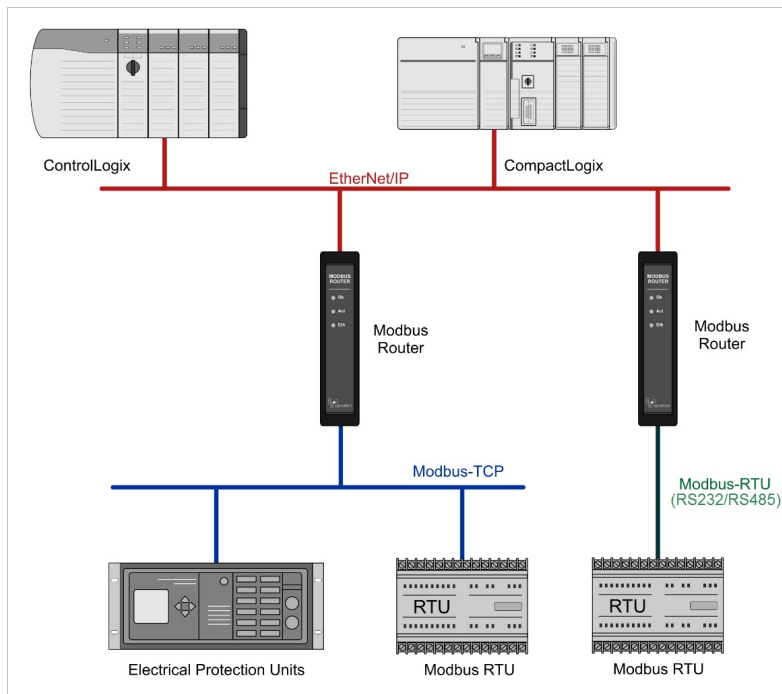
Example of a typical network setup:



Typical network setup with in Reactive Mode:



Example of a typical network setup in Scheduled/Unscheduled Mode:



Specification

Electrical

Specification	Rating
Power requirements	Input: 10 – 28V DC, (70 mA @ 24 VDC)
Power consumption	1.7 W
Connector	3-way terminal
Conductors	24 – 18 AWG
Enclosure rating	IP20, NEMA/UL Open Type
Temperature	-20 – 70 °C
Earth connection	Yes, terminal based
Emissions	IEC61000-6-4
ESD Immunity	EN 61000-4-2
Radiated RF Immunity	IEC 61000-4-3
EFT/B Immunity	EFT: IEC 61000-4-4
Surge Immunity	Surge: IEC 61000-4-5
Conducted RF Immunity	IEC 61000-4-6

Ethernet

Specification	Rating
Connector	RJ45
Conductors	CAT5 STP/UTP
ARP connections	Max 20
TCP connections	Max 20
CIP connections	Max 10
Communication rate	10/100Mbps
Duplex mode	Full/Half
Auto-MDIX support	Yes

Serial Port (RS232)

Specification	Rating
Connector	4-way terminal
Conductor	24 – 18 AWG
Isolation voltage	2.5 kV
BAUD	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
Parity	None, Even, Odd

Serial Port (RS485)

Specification	Rating
RS485 Connector	4-way terminal
RS485 Conductor	24 – 18 AWG

BAUD	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
Parity	None, Even, Odd
Data Bits	8
Stop Bits	1

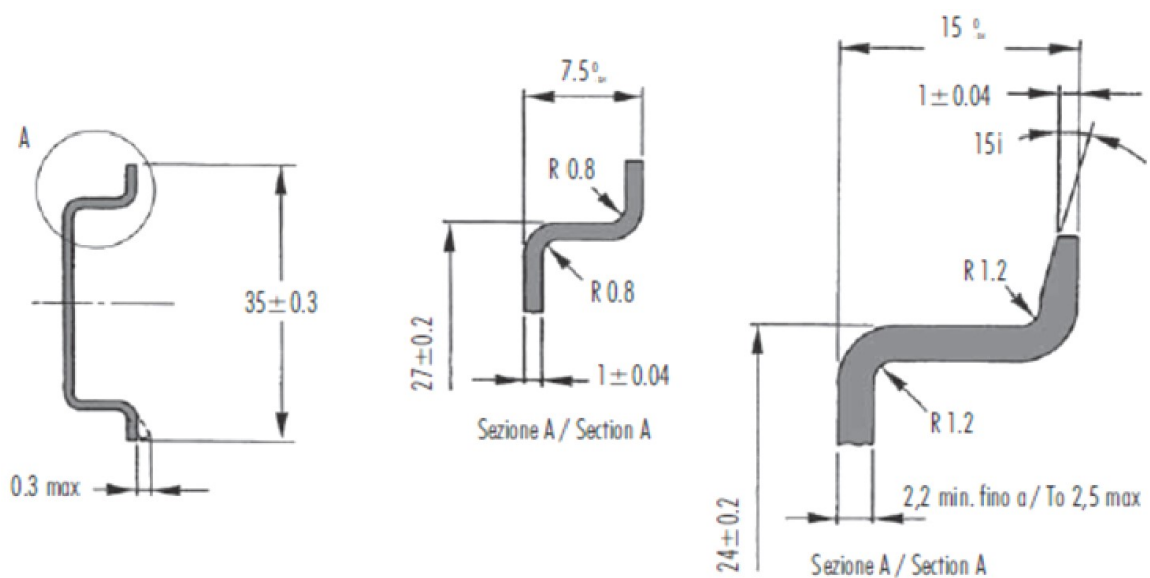
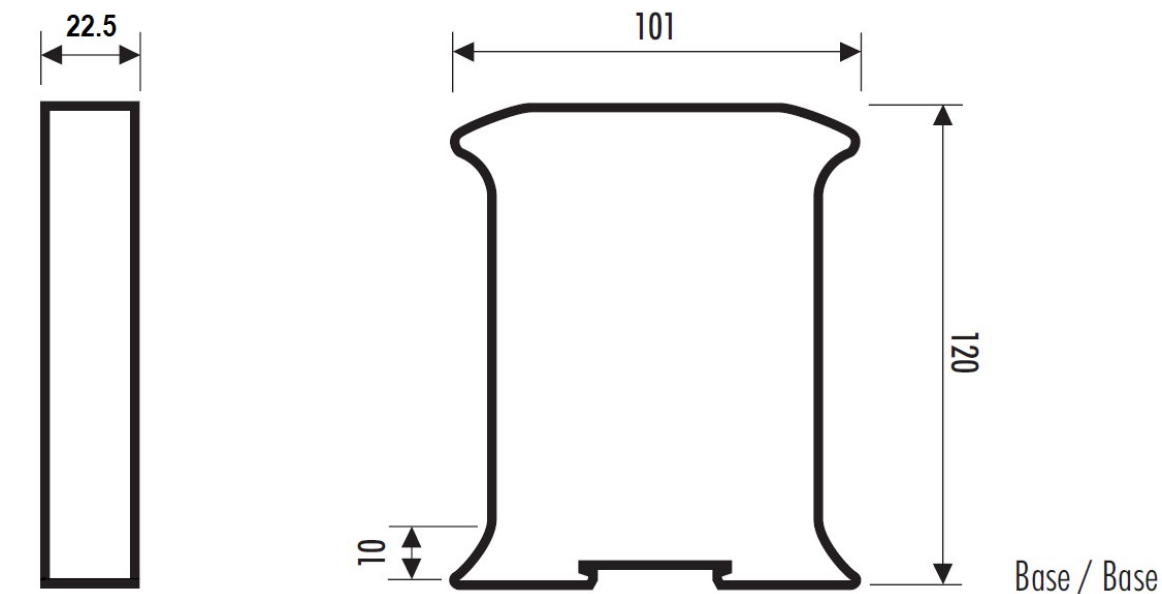
Modbus

Specification	Rating
Reactive Tag Mode	Max 20 Mapping Items
Scheduled Tag Mode	Max 20 Mapping Items
Application Functions Supported	Read Coil, Read Discrete Input, Read Holding Register, Write Coil, Write Register
Maximum Modbus write request size	255 bytes
Maximum Logix Controller support	300
Protocols	Modbus RTU, Modbus TCP

Certifications

Specification	Rating
CE Mark	
UL Listed	
ODVA Conformance	
RoHS2 Compliant	

Dimensions



Downloads

Documents

	Modbus Brochure 1.0	Size : 2.68 MB	Type : PDF	Download
	Modbus Router Quick Start 1.0	Size : 235.97 KB	Type : PDF	Download
	Modbus Router 485 Quick Start 1.0	Size : 290.7 KB	Type : PDF	Download
	Modbus User Manual 1.9	Size : 3.07 MB	Type : PDF	Download
	Modbus Datasheet 1.6	Size : 682.54 KB	Type : PDF	Download

Examples

 L5X	ModbusRouter 1.0	Size : 35.66 KB	Type : L5X	Download
 ACD	ModbusRouterExample 1.0	Size : 307.61 KB	Type : ACD	Download

EDS Files

 EDS	Modbus Router EDS 1.0	Size : 3.43 KB	Type : EDS	Download
 EDS	Modbus Router 485 EDS 1.0	Size : 3.44 KB	Type : EDS	Download

Firmware

 AFB	Modbus Firmware 1.015	Size : 331.27 KB	Type : AFB	Download
 PDF	Modbus Router Release Notes 1.015	Size : 627.39 KB	Type : PDF	Download
 AFB	Modbus Router 485 Firmware 1.010	Size : 331.27 KB	Type : AFB	Download
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