Rockwell Automation Remote I/O to ASCII Generic Serial Gateway
5601/5602-RIO-ASCII(4)

The RIO-ASCII modules are the ideal solution for the many applications where Remote I/O connectivity can be used to integrate ASCII serial input devices into a system. The Remote I/O gateway is a powerful module designed with Slave support, enabling easy connection to Rockwell Automation PLCs (CLX, SLC, PLC, CPLX, and similar devices). In combination with the ASCII device support, the module provides a very powerful interface to the many ASCII devices which are in use in the industrial marketplace today. Applications for the module are found in most industries, especially Manufacturing, Oil and Gas, Electrical Power and Food Processing.

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5601/5602-RIO-ASCII(4)

The ProLinx Rockwell Automation Remote I/O to ASCII Generic Serial Gateway creates a powerful connection between devices on a Remote I/O network and ASCII input devices. The module provides one Remote I/O port and up to four ASCII configurable serial ports.

The RIO interface is an adapter (slave) which can be connected to a scanner (master) that controls the data transfer. The module also supports limited high speed data transfer via the Input and Output images.

The ASCII protocol driver permits the module to interface to many ASCII devices. Each ASCII port on the module is configurable to send and/or receive ASCII strings, each supporting its own individual serial network.

Rockwell Automation Remote I/O

The RIO interface is an adapter (slave) and is connected to a scanner (master) that controls the data transfer. For example, the master/slave relationship can be accomplished using the RIO module (adapter/slave unit) with a Rockwell Automation PLC5 (scanner/master unit). Ladder logic must be programmed into a PLC to perform BTR/BTW commands to receive and transmit data between the module and the PLC. The module also supports limited high speed data transfer via the input and output images.

Software Configurable Parameters	
Rack Number Addressing	0 to 63
Rack Size	¼-rack, ½-rack, ¾-rack and full rack
Starting Group	0,2,4,6
Last Rack	Yes or No
Baud Rate	57.6K, 115K, 230K

Functional Specifications	
Supports block-transfers of data with scanner	
Supports I/O data movement. Amount determined by rack size configuration	
BTW Command – up to 64 words	
BTR Command – up to 63 words	

Physical Connection	
Remote I/O connector	Standard 3-screw termination connector

ASCII

The ASCII driver provides a powerful connection between the internal application database in the ProLinx unit and devices supporting serial ASCII communications (bar code scanners, line printers, legacy terminal based computer systems, etc).

The serial port on the gateway is user-configurable to support ASCII communications (Baud rate, Data Bits, Stop Bits, etc). The ASCII port can act as a Master (Send ASCII strings) or as a Slave (Receive ASCII strings), or both.

ASCII Specifications	
Ports	Available in up to four port configurations to receive and/or transmit data.
Transmit and Receive buffer size	255 bytes each
Transmit character with pacing	0 to 65535 millisecond delay between each transmitted character.

General Specifications

The ProLinx Communication Modules provide connectivity for two or more dissimilar network types. The modules, encased in sturdy extruded aluminum, are stand-alone DIN-rail mounted protocol gateways, providing communication between many of the most widely used protocols in industrial automation today.

Hardware Specifications

Specification	Description
Power Supply	24 VDC nominal
	18 to 36 VDC allowed
	Positive, Negative, GND Terminals
	2.5 mm screwdriver blade
Current Load	500 mA max@ 24 VDC
Operating Temperature	−20 to 50°C (−4 to 122°F)
Storage Temperature	−40 to 85°C (−40 to 185°F)
Relative Humidity	5 to 95% (non-condensing)
Dimensions	Standard: 5.20H x 2.07W x 4.52D in. (13.2cmH x 5.25cmW x 11.48cmD) Extended: 5.20H x 2.73W x 4.52D in. (13.2cmH x 6.934cmW x 11.48cmD)
LED Indicators	Power and Module Status
	Application Status
	Serial Port Activity LED
	Serial Activity and Error LED Status
Configuration Serial Port	DB-9M RS-232 only
	No hardware handshaking
Ethernet Port (Ethernet modules only)	RJ45 Connector Link and Activity LED indicators

Specification	Description
Application Serial Ports	RS-232/422/485
	RS-232 handshaking configurable
	RS-422/485 screw termination included
Serial Port Isolation	2500V RMS port signal isolation per UL 1577
	3000V DC min. port to ground and port to logic power isolation
Shipped with Each Unit	Mini-DIN to DB-9M serial cables
	4 ft RS-232 configuration cable
	2.5mm screwdriver
	CD (docs and Configuration utility)
	RS-422/485 DB-9 to Screw Terminal Adaptor (1 or 4, depending on ports)

ProSoft Configuration Builder

ProSoft Configuration Builder (PCB) provides a quick and easy way to manage module configuration files customized to meet your application needs. PCB is not only a powerful solution for new configuration files, but also allows you to import information from previously installed (known working) configurations to new projects.

Additional Products

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

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