



Rockwell Automation Remote I/O to ASCII Generic Serial Gateway

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.

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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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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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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.

Ordering Information

To order this product, please use the following:

5601-RIO-ASCII Rockwell Automation Remote I/O
5602-RIO-ASCII4 to ASCII Generic Serial Gateway

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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