





# Rockwell Automation Remote I/O to PROFIBUS DP Slave Gateway 5605-RIO-PDPS

The RIO-PDPS modules are the ideal solution for the many applications where Remote I/O connectivity can be used to integrate a PROFIBUS DP master device 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 PROFIBUS DP Slave support, the module provides a very powerful interface to the many PROFIBUS master 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.

# **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:

## **Asia Pacific**

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# Rockwell Automation Remote I/O to PROFIBUS DP Slave Gateway

## 5605-RIO-PDPS

The ProLinx Rockwell Automation Remote I/O Adapter to PROFIBUS DP Slave Gateway creates a powerful connection between devices on a Remote I/O network and a PROFIBUS master device. This stand-alone DIN-rail mounted protocol gateway provides one Remote I/O port and one PROFIBUS DP Slave configurable DB9F port.

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 PROFIBUS DP Slave protocol driver supports the PROFIBUS V0 Slave implementation, providing powerful data transfer capability between the ProLinx module and Siemens PLCs or other hosts. User configurable data mapping and DP port operation make the interface an easy to use and powerful data transfer tool.

# 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



#### PROFIBUS DP Slave

The PROFIBUS DP Slave driver gives access to the ProLinx unit's internal database via 244 bytes of Input data and 244 bytes of Output data (maximum 400 bytes total). These Input and Output data blocks are mapped by the user within the ProLinx module's data memory allowing the user maximum flexibility and data transfer with other protocols.

General Parameters	
GSD File	PRLX05A5.GSD
	Downloadable from ProSoft Technology web site
PROFIBUS Specifications	
Communication parameters	Baud Rate: 9.6 kbit/s - 12 Mbit/s
Supported I/O length	244 bytes Input data
	244 bytes Output data
	400 bytes total
Supported PROFIBUS DP features	PROFIBUS V0 Slave using Siemens SPC3 chipset
	Freeze Mode
	Sync Mode
	Auto Baud Setting
Configurable Parameters	PROFIBUS Node Address: 1 to 125
	Data byte swapping
	Action on loss of PROFIBUS connection
	Comm Fail Timeout Multiplier
	Status Data location in Internal Database

# **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**

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24 VDC nominal
18 to 36 VDC allowed
Positive, Negative, GND Terminals
2.5 mm screwdriver blade
500 mA max@ 24 VDC
-20 to 50°C (-4 to 122°F)
-40 to 85°C (-40 to 185°F)
5 to 95% (non-condensing)
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)
Power and Module Status
Application Status
Serial Port Activity LED
Serial Activity and Error LED Status

Specification	Description
Configuration Serial Port	DB-9M RS-232 only
	No hardware handshaking
Ethernet Port (Ethernet modules only)	RJ45 Connector Link and Activity LED indicators
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:

5605-RIO-PDPS Rockwell Automation Remote I/O to PROFIBUS DP Slave 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

#### Distributors:

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