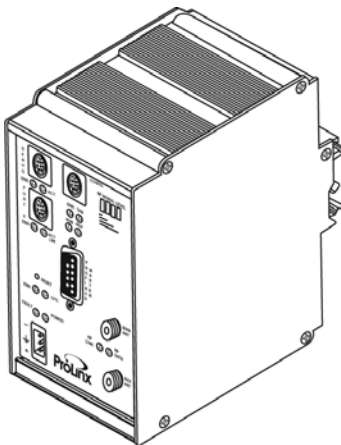


ProLinX 6000 Series PDPs



ProLinX 6000 Series PDM

Product Applications

The ProLinX 6000 series of wireless products will provide users more flexibility than ever before seen in wireless solutions. Users will be able to connect various field devices using different networks or protocols and share data between these devices "over-the-air." This is accomplished by exchanging shared common database information wirelessly with ProSoft Technology's efficient but powerful wireless protocol, PWP. ProLinX is the first product line to benefit from this technology.

Product Description

The ProLinX High Speed Wireless PROFIBUS Solution creates a powerful wireless connection between Master and/or Slave devices on a PROFIBUS DP network. The modules are stand-alone DIN rail-mounted wireless protocol gateways providing an efficient and powerful over-the-air wireless protocol and a wired PROFIBUS Master or Slave interface port.

On the field device side, the PROFIBUS DP master protocol driver is configured as a Class 1 PROFIBUS DP Master to interface with and control your PROFIBUS DP slave devices. It provides access to both standard and extended diagnostic information and provides freeze/sync capability. Configuration of the PROFIBUS network is accomplished using the ProLinX SyCon Configuration software.

On the controller side, the PROFIBUS DP driver is configured to interface with your PROFIBUS master. It provides 200 bytes of read and 200 bytes write cyclic data. The module also provides common and extended diagnostic information and other important module status information.

General Specifications – ProLinX Modules

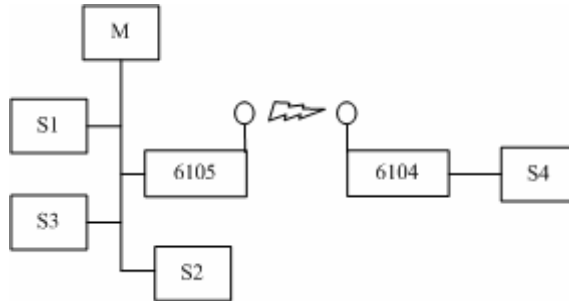
General specifications common to all modules in the ProLinX family include:

- Asynchronous data transfer between dissimilar protocols via a stand-alone gateway
- Shipped from the factory preloaded with the protocol personalities
- Module setup via a simple Windows configuration tool which (once installed on a PC) can be connected to the module via a dedicated debug/configuration serial port
- Configuration data storage in the module's non-volatile memory
- Data exchange between the protocol drivers via an internal database
- Module mounting using standard DIN rail
- Accessible power and communication ports on the front of the module
- Built-in debug tools provide user visibility to many operational aspects of the module

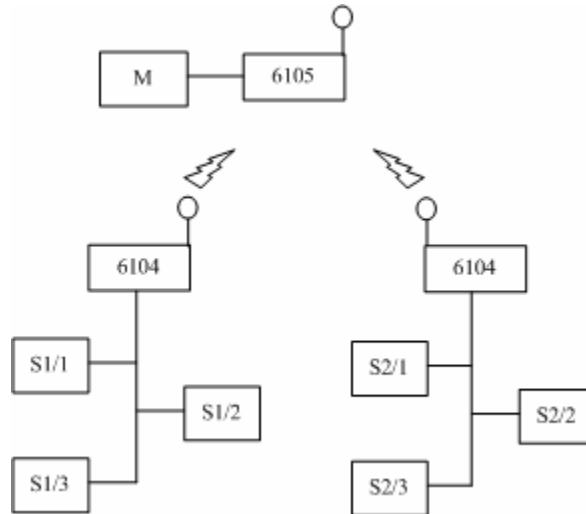
Wireless PROFIBUS Applications

The modules offer one-to-one or one-to-many PROFIBUS interconnect scenarios. Data is exchanged between devices and/or networks using a shared common database and an efficient but powerful wireless protocol. This common database provides the "backbone" communications for various field devices using different networks.

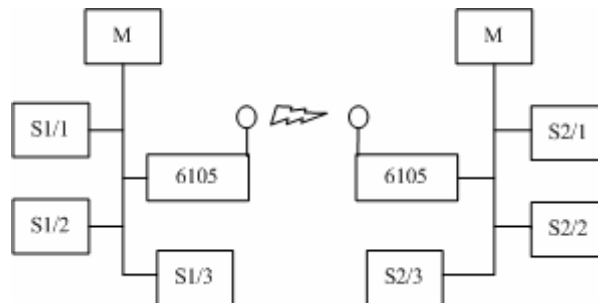
- Wireless extension of network Slaves



- Connect multiple PROFIBUS DP wireless remote device networks

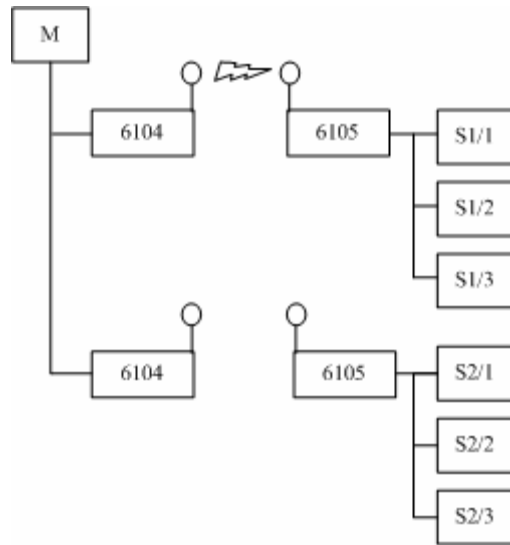


- Allow communication between multiple and separate networks

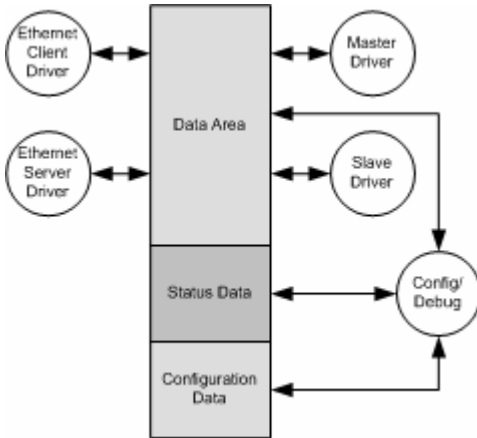


High Speed PROFIBUS Wireless Communication Modules

- Connect multiple wireless remote device networks to SCADA or any central system



High Speed PROFIBUS Wireless Communication Modules



Internal Database Structure

Functional Specifications

Internal Database

The ProLinx module contains an internal database that consists of areas for application data, status information, and configuration information.

The internal database is shared between all ports on the module and is used as a conduit to pass information from a device on one network to one or more devices on another network.

Application Data Area

The data area is used to store and retrieve data by the protocol drivers and for data exchange between protocols. The database is used as a source for write commands to remote devices and holds data collected from the remote devices. Commands defined in the configuration file (stored in the configuration data area) control how the data is to be handled in the database.

Status Data Area

This area is used to store error codes, counters, and port status information for each port.

Configuration Data Area

This area contains module configuration information such as port configuration, network information, and command configuration. This configuration file is downloaded to, or uploaded from, this area.

PROFIBUS DP Master Protocol Specifications

The PROFIBUS DP Master protocol driver exists as a single port implementation. The driver can be configured as a Class 1 PROFIBUS Master to interface with other PROFIBUS slave devices. The unit is also used for configuration of the nodes on the PROFIBUS network. It provides access to both standard as well as extended diagnostic information. The PROFIBUS master port can be used to continuously interface with PROFIBUS slave devices over a serial communication interface (RS-485).

General Parameters	
Communication parameters	Baud Rate: 9.6 kbit/s – 12 Mbit/s

PROFIBUS Master Specifications	
Command List	Read Diag Global Cmd Read Cntrs Reset Cntrs
Node address	0 - 125 – software selectable.
Status Data	Error codes, counters and port status available per configured slave on the network.

PROFIBUS DP Slave Specifications

The PROFIBUS DP Slave driver gives access to the ProLinx unit's internal database via 200 bytes of Input data and 200 bytes of Output data. 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	
Communication parameters	Baud Rate: 9.6 kbit/s – 12 Mbit/s

PROFIBUS Slave Specifications	
Communication parameters	Baud Rate: 9.6 kbit/s – 12 Mbit/s
Supported I/O length	200 bytes Input data 200 bytes Output data
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
Status Data	Status data is available through the debug menu. The status information includes diagnostic data, input and output counters and module state.

Important Note: The slave node address is set to 126 by default in the module configuration file. The default node address must be changed to a valid address between 1-125 by the user for the slave to function on the PROFIBUS network.

Radio Specifications

The modules utilize a full function wireless network card, supporting RF data rates up to 11 Mbps. The module functions as a client, providing an ultra-fast wireless solution for the most demanding industrial applications.

The module allows you to connect various field devices using different networks or protocols and share data between these devices "over-the-air." This is accomplished by exchanging shared common database information over-the-air with ProSoft Technology's efficient but powerful wireless protocol.

ProSoft Wireless Protocol (PWP)

ProSoft Wireless Protocol (PWP) offers versatility where a mix of control devices requires cooperation with each other. This involves sharing of information across the applications regardless of device or network type, often at high speed, and with high reliability. Wireless bandwidth utilization is optimized by using efficient communication methods. High reliability means fewer communication failures and having the ability to detect failures upon occurrence. Particular emphasis is delivered for applications requiring periodic or frequent updates and time synchronization of devices. The protocol supports Unicast, Broadcast and Multicast group messaging. Efficiency is based on the fact each device on the "wireless" network can produce these types of messages and each device determines which of these messages to consume.

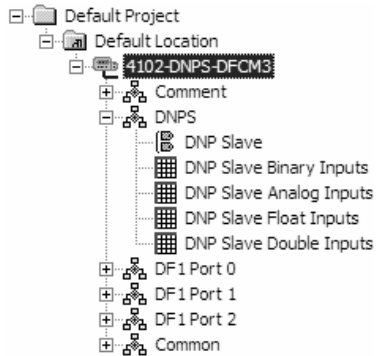
General Radio Specifications

Frequency	2.4 GHZ band (2400 to 2483.5 MHz)*
Wireless medium	DSSS - Direct Sequence Spread Spectrum
Output power	32 mW (15 dBm) Up to 500 mW (27dBm) **
Channel data rates	11, 5.5, 2, 1 Mbps
Channels – user selectable	11 – North America 13 – Europe *** 14 – Japan
Outdoor Range	up to 20+ miles **
Security	PWP + WEP 64/128 Encryption
Antenna Ports	(2) RP-SMA connectors, automatic antenna diversity

* Varies with country regulation

** With external amplifier, varies with country regulation

*** Some European countries such as France allow fewer channels



ProSoft Configuration Builder

The ProSoft Configuration Builder utility provides a quick and easy means of creating module configuration files customized to meet your application needs. The tool 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. Once created, the utility downloads the configuration to the gateway.

Some of the features in the Configuration Builder include:

- Manage and organize configuration files
 - o Store all module data in one place
 - o Groups based on project/location
 - o Copy/Paste between projects/locations
- Module configuration
 - o Graphical configuration display
 - o Easy navigation through entire configuration
 - o Parameter value range checking and assistance
 - o Print report for documentation
 - o Specific protocol command generation
- Upload/Download files
 - o Configuration files
 - o Web files (Web option required in gateway)
 - o Uses RS-232 port on module (Cable provided)
- Troubleshooting tools
 - o One-touch email of project configuration and diagnostic data to Technical Support
 - o Online access to diagnostic screens and data
 - o Built-in data analyzer displays packet data

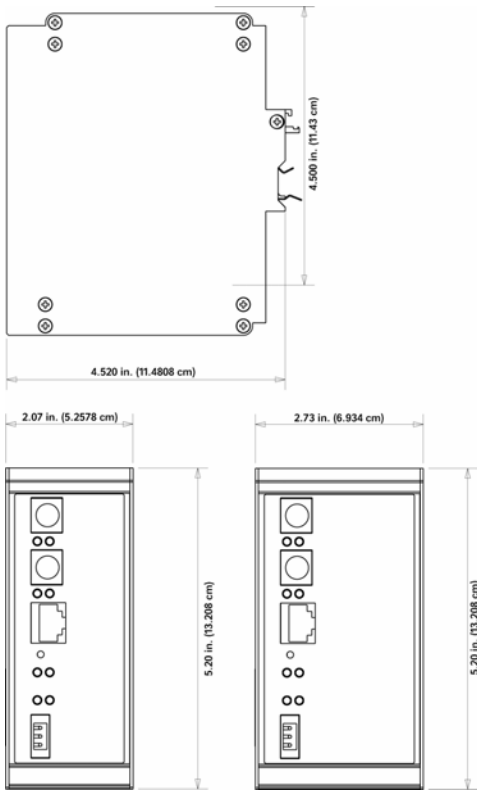
A context-sensitive help system is built into the utility.

Minimum requirements

- Windows 98, NT, 2000, XP
- Serial port (USB expander should be suitable)

High Speed PROFIBUS Wireless Communication Modules

6000 Series



Hardware Specifications

Power Supply	24 VDC nominal 18-36 VDC allowed Positive, Negative, GND Terminals 2.5 mm screwdriver blade
Current Load	500 mA max@ 24 VDC
Operating Temperature	0 to 50 °C 32 to 122 F
Storage Temperature	-15 to 85 °C 5 to 185 F
Relative Humidity	5-95% (w/o condensation)
Dimensions	ProLinx Plus (Aluminum Enclosure) 5.20H x 2.73W x 4.52D inches (HxWxD)13.2 x 6.934 x 11.48 cm
LED Indicators	Power and Module Status Application Status Serial Port Activity LED Serial Activity and Error LED Status Four level wireless signal quality LEDs Wireless link indicator Wireless activity indicator
Configuration Serial Port	DB-9M RS-232 only No hardware handshaking
Application Serial Ports	DB-9M RS-232/422/485 RS232 handshaking configurable RS422/485 screw termination included
Antenna Ports	(2) RP-SMA connectors Automatic antenna diversity
Port Isolation	2500V Opto-Isolators 500V Power Supply Isolation
Shipped with each unit	Mini-DIN to DB-9M cables per serial port 4 ft RS-232 configuration cable 2.5mm screwdriver CD (docs and Configuration utility) RS-422/485 DB9 to Screw Terminal Adaptor (1 or 4, depending on ports) 2 dBi omni-directional antenna
PROFIBUS Connector	DB-9F Standard PROFIBUS connector

High Speed PROFIBUS Wireless Communication Modules

Documentation

A CD, included with the product, contains User Manuals, Conformance Documents, etc. The CD also includes the ProSoft Configuration Builder for direct installation on a local PC. The CD's contents are all available from the web site as well.

Certifications

The ProLinx gateway module has the following certifications:

UL	Pending
UL/C	Pending
CE	
ATEX	Pending

FCC ID: SDZ-WA-1

Industry Canada: 5265A-WA-1

Certification documents are available for download from the web site and are available on the CD.

Ordering Information

To order this product, please use the following:

ProLinx Plus (Aluminum Enclosure)
Extended Case

6104-WA-PDPM

PROFIBUS wireless Master module

6105-WA-PDPS

PROFIBUS wireless Slave module

Distributors

Votre interlocuteur

AIRICOM

Ile de France
Paris et Nord

65 rue de la Libération - 60710 Chevreières
tél 03.44.91.04.14 - fax 03.44.91.04.15
www.airicom.com - info@airicom.com

AURECOM

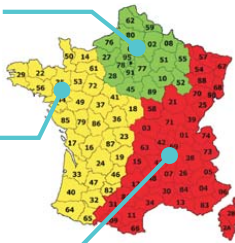
Bretagne et
Grand Ouest

La Ville Cognac - 56430 Mauron
tél 02.97.22.79.72 - fax 02.97.22.90.51
www.aurecom.fr - info@aurecom.fr

RG2i

Rhône Alpes
Est et Sud-est

26 rue Bergson - 42000 Saint Etienne
tél 04.77.92.03.56 - fax 04.77.92.03.57
www.rg2i.com - info@rg2i.fr



Groupe **EDF**

To place an order, contact your ProLinx product distributor. To locate the authorized ProLinx product distributor nearest you, visit our web site.



ProSoft Technology, Inc.
1675 Chester Avenue, 2nd Floor
Bakersfield, CA 93301
Tel. +1 661 716-5100
Fax +1 661 716-5101
www.prosoft-technology.com