PG-101-105-AC Modbus TCP to LonWorks Protocol Converter

PG-101-105-AC is highly powerful, superior, completely configurable and productive Building & Industrial Automation gateway for integrators to effortlessly interface devices to networks in commercial buildings and industrial plants.

PG-101-105-AC Gateway model supports Modbus TCP and LonWorks protocols. It is a Bi-directional Converter that can be configured as a Client and/or a Server on either protocol interface.

When configured as a LonWorks client, the PG-101-105-AC can read data from your LonWorks devices and publish it as Modbus TCP data. Also, it can write commands sent from the Modbus TCP side to the LonWorks devices.

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The PG-101-105-AC can be configured to behave as a server on both LonWorks and Modbus TCP interfaces. This mode is useful when data exchange is required between a LonWorks client (for eg. SCADA) and a BACnet IP client (for eg. a Building Management System).

PG-101-105-AC can be configured to behave as a client on both LonWorks and Modbus TCP interfaces.

PG-101-105-AC gateways have benefitted system integrators worldwide with its powerful line of gateways. Additionally, PG-101-105-AC gateway runs the same protocol conversion software on a productive and cost efficient platform backed by the experience, engineering expertise and technically proven support that integrators have come to expect from PG-101-105-AC.

Features

- Ability to interface upto 1000 points
- DIN rail mount optional
- DIP switches to select baud rate or node ID on the fly
- Multi-configuration capability
- BACnet COV support for fast data communication while reducing the traffic over a BACnet network

Specifications

Environment	Operating Temperature: -40 to 75° C (-40 to 167°F)	
	Relative Humidity:5-90% RH non-condensing	
Power Requirements	9-30 VDC or 12-24 VAC	
	Current Draw @ 12V about 250Ma	
Physical Dimensions(HxWxD)	4.5x2.9x1.6 in. (11.5x7.4x4.1 cm)	
	0.4 lbs (0.2 Kg)	
Other	Configuration/Diagnostic utilities	
	Capacity: 1000 points	
	Table,Wall or DIN rail mount	
Communication Interfaces	RS-485	1
	RS-232	-
	Ethernet 10Base-T, 100BASE-T[2]	1
	Mbus	-
	KNX	-
	LonWorks	1
Approvals	TUV Approved to UL 916 and CSA C22.2 standards	
	BTL and LonMark certified	
	LonMark Certified	
	RoHS Compliant	
	GOST-R Certified	
	CE and FCC	

Modbus TCP Protocol Driver Description

PG-101-105-AC	Client	Nodes:1 Only 1 client node allowed on Multidrop systems
	Server	Nodes:255 Actual electrical loading may reduce number of usable Server nodes

Formal Driver Type	Ethernet Client or Server	

Connection Information	Connection Type:	Ethernet
	Ethernet Speed Supported:	10Base-T, 100Base-T[1]

Data Type Supported

Command	Description
01	Read Discrete Output Status (0xxxx)
02	Read Discrete Input Status (1xxxx)
03	Read Output Registers (4xxxx)
04	Read Input Registers (3xxxx)
05	Force Single Coil (0xxxx)
06	Preset Single Register (4xxxx)
15	Force Multiple Coils (0xxxx)
16	Preset Multiple Registers (4xxxx)
EX	Exception Status
FF	FIFO

Data Type	Comments
ASCII	8-bit Character
Digital	Digital
Float	32-bit IEEE floating point
Long	Unsigned 32-bit integer
Signed	Signed 16-bit integer
Slong	Signed 32-bit integer
Unsigned	Unsinged 16-bit integer

LonWorks Protocol Driver Description

PG-101-105-AC Mode	Comments
Client	Nodes: 1 The PG-101-105-AC can only represent one LonWorks Device on the LonWorks Network. A LonWorks device is unique in terms of its Neuron Chip Identification Number.
Server	
Formal Driver Type	FieldBus
	Client or Server

Connection Information:	
Connection Type:	FTT-10 Free Topology Network Transceiver
Baud Rates:	78125 bps (bits per second)
Hardware Interface:	Built in LonWorks FTT-10 interface

Data Types Supported

PG-101-105-AC Data Type	Description
Integers (Long, Short, signed, unsigned)	SNTVs and UNTVs can be presented, stored and moved into any data type
Float	
Byte	
Bit	

Read Operations Supported

PG-101-105-AC as a Client	PG-101-105-AC as a Server
Polled Network Variables:	Polled Network Variables:
-Send Network Variable Fetch	-Respond to Network Variable Fetch
-Send Network Variable Poll	-Respond to Network Variable Poll

Write (Control) Operations Supported

PG-101-105-AC as a Client	PG-101-105-AC as a Server
Network Variables Updates:	Network Variables Updates:
-Send Network Variable Updates	-Accept Network Variable Updates

Unsupported Functions and Data Types

Function	Reason
Programming messages	PG-101-105-AC is a data transfer device, and as such, programming messages are not required
Direct Memory Read/Writes under user control	The driver uses the Echelon MIP which handles direct memory read and writes
LonMark File Transfer Protocol	The Driver does not support reading and writing remote Configuration Properties implemented as files. The Driver, therefore does not support the LonMark File Transfer Protocol that is commonly used to access these remote files.

| NON AC DIMENSIONS | AC DIMENSIONS |