PG-132-101-BX EST3 to Modbus TCP Protocol Converter

PG-132-101-BX 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-132-101-BX Gateway model supports EST3 and Modbus TCP protocols. It is a Bi-directional Converter that can be configured as a Client on EST3 side and a Server/Client on Modbus TCP protocol interface.

When configured as a EST3 client, the PG-132-101-BX can read data from your EST3 fire panel and publish it as Modbus TCP data. Also, it can write commands sent from the Modbus TCP side to the EST3 fire panel.

When configured as a Modbus TCP client, the PG-132-101-BX can read data from your Modbus TCP devices and publish it as EST3 type data. Also, it can write commands sent from the EST3 side to the Modbus TCP devices.

The PG-132-101-BX can be configured to behave as a server on Modbus TCP interfaces. This mode is useful when data exchange is required between a EST3 client (for eg. SCADA) and a Modbus TCP client (for eg. a Building Management System).

The PG-132-101-BX can be configured to behave as a client on both EST3 and Modbus TCP interfaces.

PG-132-101-BX gateways have benefitted system integrators worldwide with its powerful line of gateways. Additionally, PG-132-101-BX 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-132-101-BX.

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-485 or RS-232	1
	Ethernet 10Base-T, 100BASE-T[2]	1
	Mbus	-
	KNX	-
	LonWorks	-
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	

PG-132-101-BX As EST3 Client

Data Types and Commands Supported

The following commands may be sent using the **EST3 Command Service**

EST3 Object Type	EST3 Commands
Relay	Activate, Restore, Enable, Disable
Led	Activate, Restore, Enable, Disable
ServGroup	Activate, Restore, Enable, Disable
GuardPtrl	Activate, Restore, Enable, Disable
ChkInGrp	Activate, Restore, Enable, Disable
AltMessage	Activate, Restore
AmpPower	Activate, Restore, Enable, Disable
AudMsg	Activate, Restore
Reset	Activate, Restore
PanelSil	Activate, Restore
AlarmSil	Activate, Restore
Drill	Activate, Restore
GAInhibit	Activate, Restore
Set Time	Activate, Restore
Set Date	Activate, Restore
Reboot	Activate, Restore
Evacuate	Activate, Restore
AltSensitiv	Activate, Restore
MCmsg	Activate, Restore,Enable, Disable
CmdList	Activate, Restore,Enable, Disable
Input	Enable, Disable
Zone	Enable, Disable
Card	Enable, Disable
AndGroup	Activate, Restore,Enable, Disable
Matrix	Enable, Disable
TimeCtrl	Enable, Disable
InstructionText	Enable, Disable
ClrPartitionEvent	Activate, Restore
DeviceTest	Activate, Restore
SysFunction1	Activate, Restore
SysFunction2	Activate, Restore
SysFunction3	Activate, Restore
SysFunction4	Activate, Restore
CalibrateAnalog	Activate, Restore
2StageSounder	Activate, Restore,Enable, Disable
SensorByPass	Activate, Restore
GasAccelerated Response	Activate, Restore

RemoteReadLock	Activate, Restore
RemoteWrite Unlock	Activate, Restore
LogicalOutput	Activate, Restore,Enable, Disable
LampTest2	Activate, Restore
Partition	Away, Disarm

Read Operations supported

The EST3 ECP driver makes use of the Report Service to read the current state of EST3 points. It also updates the current state if Delta Service reports are received, which are unsolicited broadcasts initiated by the EST3 panel when a point changes.

PG-132-101-BX as a Client
EST3 Report Service (polled)
All panel points IO Status Status values are able to be decoded and stored as Alarm, Trouble, Supervisory, Monitor or as Others. It is now possible to configure the category that an event is placed in. The Driver can be configured to provide Relay confirmation status. The Driver can be configured to provide the acknowledge state of a point and can acknowledge it. Sensitivity Report: The Driver can be configured to store dirtiness as value*10 for system sensor devices and the actual value for other devices (The Panel sends % values for other devices).
EST3 Delta Service (unsolicited)
All panel points Delta message status values are optionally decoded and stored as Alarm, Trouble, Supervisory, Monitor or as Others.
EST3 Date and Time Service
The FieldServer can be configured to synchronize its clock with Panel or the FieldServer can set the Panel's clock

UNSUPPORTED FUNCTIONS AND DATA TYPES

EST3 Command	**Reason**
Stay	not required to date
Conditional Away	not required to date
Conditional Stay	not required to date
Update Status	not required to date
Remove Bypass	not required to date
Bypass	not required to date

EST3 Service	**Reason**
Panel State Service	not required to date

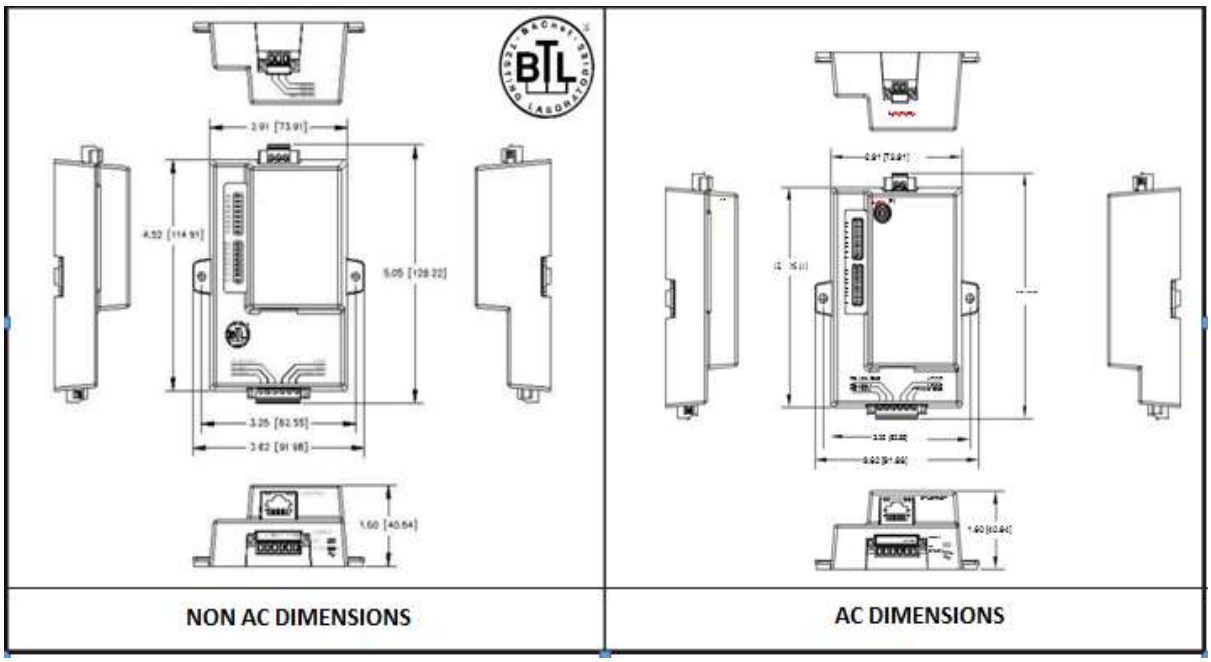
Protocol Encapsulation Service	not required to date
Access Event Service	not required to date
Partition Reset Service	not required to date
Command Logging Service	not required to date

Modbus TCP Protocol Driver Description

PG-132-101-BX	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

Dimensions:



NON AC DIMENSIONS	AC DIMENSIONS