

### PG-102-101-AA BACnet MS/TP to Modbus TCP Protocol Converter

PG-102-101-AA 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-102-101-AA Gateway model supports BACnet MS/TP and Modbus TCP protocols. It is a Bidirectional Converter that can be configured as a Client and/or a Server on either protocol interface.

When configured as a Modbus TCP client, the PG-102-101-AA can read data from your Modbus TCP devices and publish it as BACnet MS/TP data. Also, it can write commands sent from the BACnet MS/TP side to the Modbus TCP devices.

When configured as a BACnet MS/TP client, the PG-102-101-AA can read data from your BACnet MS/TP devices and publish it as Modbus TCP data. Also, it can write commands sent from the Modbus TCP side to the BACnet MS/TP devices.

The PG-102-101-AA can be configured to behave as a server on both Modbus TCP and BACnet MS/TP interfaces. This mode is useful when data exchange is required between a Modbus TCP client (for eg. SCADA) and a BACnet IP client (for eg. a Building Management System).

The PG-102-101-AA can be configured to behave as a client on both Modbus TCP and BACnet MS/TP interfaces.

PG-102-101-AA gateways have benefitted system integrators worldwide with its powerful line of gateways. Additionally, PG-102-101-AA 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-102-101-AA.

#### **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**

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



# **BACnet MS/TP Protocol Driver Description**

	Connection type:	RS-485 (Two wire, half-duplex)
	Baud Rates:	9600,19200,38400 and 76800 <sup>3</sup>
Driver Name:	Data Bits:	7,8
BACnet/MSTP	Stop Bits:	1,2
BACHEG WIST	Parity:	Odd, Even, None
	Multidrop Capability:	Yes
	, , , , , , , , , , , , , , , , , , ,	
PG-1	LO2-101-AA AS A BACnet MS/TF	CLIENT
Read Operations	Properties Supported	Comments and Limitations
Supported		
	Present Value	Store value in Data Array
		location after scaling has been
		applied
	Out_Of_Service	When using a Complex Data
		Object, the OOS property is
		fully supported. Return FALSE
		when not OOS or when using
		standard Data Arrays
	Units	Returns Units as specified in
		the Map Descriptor
	Reliability	When using a Complex Data
		Objects, returns "Unreliable
		Other" when the Node is
Read Property		offline, or when the data is old.
		Returns FALSE if the Node is
		online or when using Standard
	Driority Array	Data Arrays
	Priority_Array	Returns Priority_Array of Map
	Linguisianostad	Descriptor This property is supported
	Unsupported  Protocol Object Type Supported	This property is supported This property is supported
	Protocol_Object_Type_Supported	
	Protocol_Services_Supported  Database_Revision	This property is supported This property is supported and
	Database_Nevision	will change if a new
		configuration is downloaded to
		the FS
	Max Master	This property is supported for
	ax_iriascei	property is supported for

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		the BACnet /MSTP DLL option
	Max_Info_Frames	This property is supported for
	Wiax_IIIIO_I Tailles	the BACnet/MSTP DLL option
	Relinguish Default	Returns Relinguish Default
	Neilinguish_Delauit	Neturis Neiliiguisii _Deiault
Read Property Multiple	As for Read Property	Transactions can be defined to read multiple objects and properties in a single ReadPropertyMultiple operation.
	ALL	Read Property Multiple of the ALL property is NOT supported
Write Operations Supported	Properties Supported	Comments and Limitations
Write Property		Send value in Data Array
Write Property Multiple	Present Value	location after scaling has been applied
PG-10	2-101-AA AS A BACnet MS/TP	SERVER
DEVICE OBJECT		
Read Operations	Properties Supported	Comments and Limitations
Supported		
	Object_Identifier	Returns Object _ID with
		Node_ID as Object Instance
	Object_Name	Returns Node Name
	Object_Type	Returns Device Object type
	System_Status	Returns Normal
	Vendor_Name	Returns PG-10XX Technologies
	Vendor_Identifier	Returns 37
	Model_Name	Returns PG-10XX model
	Firmware_revision	Returns Kernel Version
	Application_sw_version	Returns DCC version
	Protocol_Version	Returns version 1
Read Property	Protocol_Revision	Returns version 1
	Protocol_Services_Supported	This property is supported
	Protocol_Object_Type_Supported	This property is supported
	Protocol_Object_List	Returns a list of objects
		defined in the PG-10XX
	Max_APDU_Length_Accepted	For PG-10XX,the MAX APDU length for BACnet MSTP is 480 bytes and for BACnet IP/BACnet Eth 1497 bytes
	Segmentation_Supported	Returns Segmantation NOT Supported
	APDU Timeout	Returns the value as defined



	La tha Na data ((T' an an 17)
	by the Node's "Timeout"
ADDII Detrice	paramater
APDU_Retries	Returns the value as defined
	by the Node's "Retries"
Davisa Addusas Bindinas	parameter
	Returns an empty list
Max_Master	This property is supported for the BACnet/MSTP DLL option
Max_info_Frames	This property is supported for the BACnet/MSTP DLL option
Description	This property is supported
Database_Revision	This property is supported and will change if a new configuration is downloaded to the PG-10XX
Same properties as Read Property	Read Property Multiple is fully supported. Multiple objects with multiple properties can be specified
Properties Supported	Comments and Limitation
Max_Master	This Property is supported for
	the BACnet /MSTP DLL option
Max info Frames	This Property is supported for
	the BACnet /MSTP DLL option
Max_Master	This Property is supported for
	the BACnet /MSTP DLL option
Max_info_Frames	This Property is supported for
	the BACnet /MSTP DLL option
Properties Supported	Comments and Limitations
Object Identifier	No Limitations
	Returns Map Descriptor Name
	Returns Analog Input Object
00,000_1,460	Type
Present Value	Returns value in Data Array
	after scaling has been applied
Status Flags	When using Complex Data
	Objects returns the FAULT and
	OUT_OF_SERVICE fields as
	LOUT OF SERVICE HEIDS AS
	indicated in section 12.2.7 of
	Description Database_Revision  Same properties as Read Property  Properties Supported  Max_Master  Max_info_Frames  Max_info_Frames  Max_info_Frames



		bits.
	Event_State	No Limitations
	Reliability	When using a Complex Data
	Nemasiney	Objects, returns Unreliable
		Other when the Node is
		offline, or when the data is old.
		Returns FALSE if the node is
		online or when using Standard
		Data Arrays
	Out_Of_Service	Fully supported when using a
		Complex data Object. Returns
		FALSE when not OOS or when
	2	using standard Data Arrays
	Description	This property is supported
	Units	Returns Units as specified in the Map Descriptor
Dani Danamata & J.C. I.	Companyation - Book Book	Daniel Dunamento & March 11 C. C. H.
Read Property Multiple	Same properties as Read Property	Read Property Multiple is fully supported. Multiple objects
		with Multiple properties can
		be specified
Write Operations	Properties Supported	Comments and Limitations
Supported		
Write Property	Present_Value	Writing to the Present Value is
Write Property Multiple	Tresent_value	allowed if the Object is OOS
Data Sharing Operations	Properties Supported	Comments and Limitations
Supported	торогого опростоя	
SubscribeCOV	Present value	Subscription storage is non-
	_	volatile
COVNotification	Present_value	Confirmed and Unconfirmed
Alarm and Event	Properties Supported	Comments and Limitations
Operations Supported		
EventNotification	Present_Value,Status	Confirmed and Unconfirmed
AcknowledgeAlarm		No limitations
Analog Output Object, Ana	T	
Read Operations Supported	Properties Supported	Comments and Limitations
	Object_Identifier	No Limitations
Read Property	Object_Name	Returns "Map Descriptor Name"
	Object_Type	Returns Analog Output Object type



	Present_Value	Returns value in Data Array
	1.1250.11_1.01.00	after scaling has been applied
	Status_Flags	When using Complex Data
	""	Objects returns the FAULT and
		OUT_OF_SERVICE fields as
		indicated in section 12.2.7 of
		the BACnet specification.
		When using standard Data
		Arrays returns FALSE for all bits
	Event_State	No Limitations
	Reliability	When using a Complex Data
		Objects, returns "Unreliable
		Other" when the Node is
		offline, or when the data is old.
		Returns FALSE if the Node is
		online or when using Standard
		Data Arrays
	Out_Of_Service	Fully supported when using a
		Complex Data Object. Returns
		FALSE when not OOS or when
		using standard Data Arrays
	Units	Returns Units as specified in
		the Map Descriptor
	Priority_Array	Returns Priority_Array of Map
		Descriptor
	Description	This property is supported
	Relinguish_Default	Returns Religuish _Default
Read Property Multiple	Same properties as Read Property	Read Property Multiple is fully
Read Froperty Wartiple	Same properties as Read Property	supported. Multiple objects
		with multiple properties can
		be specified
Write Operations Supported	Properties Supported	Comments and Limitations
Write Property		When using Complex Data
Write Property Multiple		Objects and OOS is TRUE, then
		the write will not cause a
		write-through operation to the
	Present_Value	Server side. If the OOS is FALSE
		or when using standard Data
		Arrays then writes will always
		cause a write-through
		operation to the Server side
Data Charing Onerations	Duomouting Commonted	Commonts and Limitations
Data Sharing Operations	Properties Supported	Comments and Limitations
Supported	Descent Value	Subsociation stansactions
SubscribeCOV	Present_Value	Subscription storage is non-



		volatile
COVNotification	Present_Value	Confirmed and Unconfirmed
Alarm and Event	Properties Supported	Comments and Limitations
Operations Supported		
Event Notification	Present_Value, Status	Confirmed and Unconfirmed
AcknowledgeAlarm		No Limitations
Binary Input Object		
Read Operations	Properties Supported	Comments and Limitations
Supported		
	Object_Identifier	No Limitations
	Object_Name	Returns "Map Descriptor
		Name"
	Object_Type	Returns Analog Input Object
		type
	Present_Value	Returns the binary value in the
	Status Flags	data array
	Status_Flags	When using Complex Data Objects returns the FAULT and
		OUT_OF_SERVICE fields as
		indicated in section 12.2.7 of
		the BACnet specification.
		When using standard Data
		Arrays returns FALSE for all bits
	Event_State	No Limitations
	Reliability	When using a Complex Data
Read Property		Objects, returns "Unreliable
		Other" when the Node is
		offline, or when the data is old.
		Returns FALSE if the Node is online or when using Standard
		Data Arrays
	Out_Of_Service	Fully supported when using
		Complex Data Object. Returns
		FALSE when not OOS or when
		using standard Data Arrays
	Polarity	Always returns "Normal"
	Active_Text	Returns Active Text as
		specified on the Map
		Descriptor
	Description	This property is supported
	Inactive_Text	Returns Inactive Text as
		specified on the Map
		Descriptor
Read Property Multiple	Same properties as Read Prop	erty Read property Multiple is fully
nead Froperty Multiple	Jame properties as nead Prop	city   Nead property whithhe is fully



		supported. Multiple objects with multiple properties can be specified
Write Operations Supported	Properties Supported	Comments and Limitations
Write Property Write Property Multiple	Present_Value	Writing to the Present Value is allowed if the Object is OOS
Data Sharing Operations Supported	Properties Supported	Comments and Limitations
SubscribeCOV	Present_Value	Subscription storage is non-volatile
COVNotification	Present_Value	Confirmed and Unconfirmed
Alarm and Event Operations Supported	Properties Supported	Comments and Limitations
Event Notification AcknowledgeAlarm	Present_Value, Status	Confirmed and Unconfirmed No Limitations
Binary Output Object, Bina	rv Value Obiect	
Read Operations	Properties Supported	Comments and Limitations
Supported	Object_Identifier Object_Name	No Limitations  Returns "Map Descriptor Name"
	Object_Type	Returns Analog Input Object type
	Present_Value	Returns the binary value in the data array
Read Property	Status_Flags	When using Complex Data Objects returns the FAULT and OUT_OF_SERVICE fields as indicated in section 12.2.7 of the BACnet specification. When using standard Data Arrays returns FALSE for all bits
	Event_State	No Limitations
	Reliability	When using a Complex Data Objects, returns "Unreliable Other" when the Node is offline, or when the data is old. Returns FALSE if the Node is online or when using Standard



		Data Arrays
	Out_Of_Service	Fully supported when using Complex Data Object. Returns FALSE when not OOS or when using standard Data Arrays
	Priority_Array	Returns Priority_Array of Map Descriptor
	Religuish_Default	Returns Current Relinguish_Default
	Description	This property is supported
	Active_Text	Returns Active Text as specified on the Map Descriptor
	Inactive_Text	Returns Inactive Text as specified on the Map Descriptor
Read Property Multiple	Same properties as Read Property	Read property Multiple is fully supported. Multiple objects with multiple properties can be specified
Write Operations Supported	Properties Supported	Comments and Limitations
Write Property Write Property Multiple	Present_Value	When using Complex Data Objects and OOS is TRUE, then the write will not cause a write-through operation to the downstream side. If the OOS is FALSE or when using standard Data Arrays when writes will always cause a write-through operation to the downstream side
Data Sharing Operations Supported	Properties Supported	Comments and Limitations
Data Sharing Operations Supported SubscribeCOV	Properties Supported  Present_Value	Comments and Limitations  Subscription storage is non-volatile
Supported		Subscription storage is non-
Supported SubscribeCOV COVNotification Alarm and Event	Present_Value	Subscription storage is non-volatile
Supported SubscribeCOV COVNotification	Present_Value Present_Value	Subscription storage is non- volatile Confirmed and Unconfirmed



Read Operations	Properties Supported	Comments and Limitations
Supported		
	Object_Identifier	No Limitations
	Object_Name	Returns "Map Descriptor
	Object Type	Name"
	Object_Type	Returns Analog Input Object type
	Present_Value	Returns unsigned Integer value
	Tresent_value	in the data array
	Status_Flags	When using Complex Data
		Objects returns the FAULT and
		OUT_OF_SERVICE fields as
Read Property		indicated in section 12.2.7 of
Redu Froperty		the BACnet specification.
		When using standard Data
	5	Arrays returns FALSE for all bits
	Event_State	No Limitations
	Reliability	When using a Complex Data Objects, returns "Unreliable
		Other" when the Node is
		offline, or when the data is old.
		Returns FALSE if the Node is
		online or when using Standard
		Data Arrays
	Description	This property is supported
	Out_Of_Service	When using a Complex Data
		Object, the OOS property is
		fully supported. Returns FALSE
		when not OOS or when using
	Number Of State	standard Data Arrays When using a Complex Data
	Number_Or_State	Object, returns the number of
		states defined. When using
		Standard Data Arrays returns
		the value of 5
	State_Text	When using Complex Data
		Objects returns the State Text
		Strings defined. When using
		Standard Data Arrays return
		"State_X" where "X" is the
		value stored in Data_Array and
		could be 0 to 4
Read Property Multiple	Same properties as Read Property	Read property Multiple is fully
nead Froperty Multiple	Same properties as nead 1 roperty	supported. Multiple objects
		with multiple properties can
		be specified



Write Operations Supported	Properties Supported	Comments and Limitations
Write Property	Donas ant Malica	Writing to the Present Value is
Write Property Multiple	Present_Value	allowed if the Object is OOS
Data Sharing Operations	Properties Supported	Comments and Limitations
Supported		
SubscribeCOV	Present_Value	Subscription storage is non-volatile
COVNotification	Present_Value	Confirmed and Unconfirmed
Alarm and Event	Properties Supported	Comments and Limitations
Operations Supported		
Event Notification	Present_Value, Status	Confirmed and Unconfirmed
AcknowledgeAlarm		No Limitations
Multi-State Output Object	t, Multi-State Value Object	·
Read Operations Supported	Properties Supported	Comments and Limitations
- Сарронска	Object_Identifier	No Limitations
	Object_Name	Returns "Map Descriptor Name"
	Object_Type	Returns Analog Input Object type
	Present_Value	Returns unsigned Integer value in the data array
Read Property	Status_Flags	When using Complex Data Objects returns the FAULT and OUT_OF_SERVICE fields as indicated in section 12.2.7 of the BACnet specification. When using standard Data Arrays returns FALSE for all bits
	Event_State	No Limitations
	Reliability	When using a Complex Data Objects, returns "Unreliable Other" when the Node is offline, or when the data is old. Returns FALSE if the Node is online or when using Standard Data Arrays
	Out_Of_Service	Fully supported when using a Complex Data Object. Returns FALSE when not OOS or when using standard Data Arrays
	Number_Of_State	When using a Complex Data



States defined. When using Standard Data Arrays returns the value of 5			
Standard Data Arrays returns the value of 5  State_Text  State_Text  When using Complex Data Objects returns the State Text Strings defined. When using Standard Data Arrays return "State_X" where "X" is the value stored in Data_Array and could be 0 to 4  Description  Priority_Array  Returns Priority_Array of Map Descriptor  Religuish_Default  Read Property Multiple  Same properties as Read Property  Write Operations Supported  Write Property  Write Property  Write Property Multiple  Present_Value  Present_Value  Present_Value  Data Sharing Operations Supported  SubscribeCOV  Present_Value  Data Sharing Operations Supported  Write Operations Supported  Data Sharing Operations Supported  Data Sharing Operations Supported  Present_Value  Comments and Limitations  Alarm and Event Operations Supported  Comments and Unconfirmed  Alarm and Event Operations Supported  Present_Value, Status  Confirmed and Unconfirmed  Alarm and Event Operations Supported  Event Notification  Present_Value, Status  Confirmed and Unconfirmed  No Limitations  No Limitations  No Limitations  No Limitations  No Limitations  No Limitations  Object_Name  Object_Name  Returns "Map Descriptor			Object, returns the number of
State_Text			_
State_Text			I
Objects returns the State Text Strings defined. When using Standard Data Arrays return "State_X" where "X" is the value stored in Data_Array and could be 0 to 4			
Strings defined. When using Standard Data Arrays return "State_X" where "X" is the value stored in Data_Array rand could be 0 to 4    Description		State_Text	When using Complex Data
Standard Data Arrays return "State_X" where "X" is the value stored in Data_Array and could be 0 to 4			Objects returns the State Text
## State_X" where "X" is the value stored in Data_Array and could be 0 to 4    Description			Strings defined. When using
Value stored in Data_Array and could be 0 to 4			Standard Data Arrays return
Could be 0 to 4			"State_X" where "X" is the
Description			value stored in Data_Array and
Priority_Array   Returns Priority_Array of Map   Descriptor			could be 0 to 4
Read Property Multiple  Read Property Multiple  Same properties as Read Property  Read property Multiple is fully supported. Multiple objects with multiple properties can be specified  Write Operations Supported  Write Property  Write Property  Write Property Multiple  Present_Value  Present_Value  Present_Value  Data Sharing Operations Supported  SubscribeCOV  Present_Value  Present_Value  Comments and Limitations  Properties Supported  Subscription storage is non-volatile  COVNotification  Present_Value  Confirmed and Unconfirmed  Alarm and Event Operations Supported  Event Notification  Present_Value, Status  Confirmed and Unconfirmed  AcknowledgeAlarm  Properties Supported  Comments and Limitations  Notification Class Object  Read Operations Supported  Object_Identifier  Object_Name  Object_Name  Returns "Map Descriptor		Description	This property is supported
Read Property Multiple  Same properties as Read Property Same properties as Read Property Supported. Multiple objects with multiple properties can be specified  Write Operations Supported Write Property Write Property Write Property Multiple  Present_Value  Present_Value  Present_Value  Present_Value  Present_Value  Present_Value  Present_Value  Data Sharing Operations Supported  SubscribeCOV Present_Value  SubscribeCOV Present_Value  Comments and Limitations  Properties Supported  Comments and Unconfirmed  Alarm and Event Operations Supported  Event Notification Present_Value, Status Confirmed and Unconfirmed  AcknowledgeAlarm  Properties Supported  Comments and Limitations  Notification Class Object  Read Operations Supported  Object_Identifier Object_Name Returns "Map Descriptor		Priority_Array	Returns Priority_Array of Map
Read Property Multiple    Same properties as Read Property   Supported   SubscribeCOV   Present_Value   Subscription storage is non-volatile   Supported   Support			Descriptor
Supported		Religuish_Default	Returns Relinguish_Default
Write Operations Supported Write Property Write Property Write Property Multiple Write Property Multiple Write Property Multiple Write Property Multiple Present_Value  Present_Value  Data Sharing Operations Supported  SubscribeCOV Present_Value  Comments and Limitations  Properties Supported  Subscription storage is non-volatile  COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  AcknowledgeAlarm  Notification Class Object  Read Operations Supported  Object_Identifier Object_Identifier Object_Name  No Limitations  Returns "Map Descriptor			
Write Operations Supported Write Property Write Property Multiple Write Property Multiple Write Property Multiple  Present_Value  Present_Value  Present_Value  Comments and Limitations  Supported  Data Sharing Operations Supported SubscribeCOV  Present_Value  Comments and Limitations  Properties Supported Subscribiector  Present_Value  Confirmed and Unconfirmed  Alarm and Event Operations Supported  Event Notification  Present_Value, Status  Properties Supported  Comments and Limitations  Operations Supported  No Limitations  Notification Class Object  Read Operations Supported  Object_Identifier Object_Name  No Limitations  Returns "Map Descriptor	Read Property Multiple	Same properties as Read Property	Read property Multiple is fully
Despecified   Write Operations   Supported   Write Property			supported. Multiple objects
Write Operations Supported  Write Property Write Property Multiple Present_Value  Present_Value  Present_Value  Present_Value  Present_Value  Data Sharing Operations Supported  SubscribeCOV Present_Value  Present_Value  Present_Value  Comments and Limitations  Supported  SubscribeCOV Present_Value  Subscription storage is non-volatile  COVNotification Present_Value  Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  AcknowledgeAlarm  No Limitations  Notification Class Object  Read Operations Supported  Object_Identifier Object_Name  Returns "Map Descriptor			with multiple properties can
Supported  Write Property Write Property Multiple Present_Value  Comments and Limitations Supported SubscribeCOV Present_Value Subscription storage is non-volatile COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  AcknowledgeAlarm Properties Supported Comments and Limitations Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed No Limitations No Limitations Object_Identifier Object_Identifier Object_Name Returns "Map Descriptor			be specified
Write Property Write Property Multiple Present_Value Present_Value Present_Value Present_Value Present_Value Present_Value  Data Sharing Operations Supported SubscribeCOV Present_Value Subscription storage is non-volatile COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  AcknowledgeAlarm Properties Supported Comments and Limitations No Limitations No Limitations Supported Comments and Unconfirmed No Limitations No Limitations No Limitations Supported Object_Identifier Object_Name Read Property No Limitations Returns "Map Descriptor	Write Operations	Properties Supported	Comments and Limitations
Write Property Multiple Present_Value Present_Value  Present_Value  Objects and OOS is FALSE or when using standard data arrays, writes will trigger a write through operation to client side  Data Sharing Operations Supported  SubscribeCOV Present_Value Subscription storage is non-volatile  COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  AcknowledgeAlarm No Limitations  Notification Class Object Read Operations Supported Object_Identifier Object_Name Returns "Map Descriptor	Supported		
Write Property Multiple Present_Value Present_Value  Present_Value  Objects and OOS is FALSE or when using standard data arrays, writes will trigger a write through operation to client side  Data Sharing Operations Supported  SubscribeCOV Present_Value Subscription storage is non-volatile  COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  AcknowledgeAlarm No Limitations  Notification Class Object Read Operations Supported Object_Identifier Object_Name Returns "Map Descriptor	Write Property		When using Complex Data
Present_Value  When using standard data arrays, writes will trigger a write through operation to client side  Data Sharing Operations Supported  SubscribeCOV  Present_Value  Subscription storage is non-volatile  COVNotification  Present_Value  Confirmed and Unconfirmed  Alarm and Event Operations Supported  Event Notification  Present_Value, Status  Confirmed and Unconfirmed  No Limitations  Notification Class Object  Read Operations Supported  Object_Identifier  Object_Name  No Limitations  Returns "Map Descriptor			
Present_value arrays, writes will trigger a write through operation to client side  Data Sharing Operations Supported SubscribeCOV Present_Value Subscription storage is non-volatile COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  No Limitations  Notification Class Object Read Operations Supported Object_Identifier Object_Name Reau Property  No Limitations Reau Property Read Property  AcknowledgeAlarm Returns "Map Descriptor	, , ,		1
Data Sharing Operations Supported Comments and Limitations Supported SubscribeCOV Present_Value Subscription storage is non-volatile COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  AcknowledgeAlarm Comments and Limitations  Notification Class Object Read Operations Supported Comments and Limitations  Notification Class Object Read Operations Object Supported Comments and Limitations  No Limitations Supported Comments and Limitations  No Limitations Supported Read Property Object_Name Returns "Map Descriptor		Present_value	_
Data Sharing Operations Supported SubscribeCOV Present_Value Subscription storage is non-volatile COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  No Limitations  Notification Class Object Read Operations Supported Object_Identifier Object_Name Read Property  Comments and Limitations Comments and Limitations No Limitations Returns "Map Descriptor			write through operation to
Supported SubscribeCOV Present_Value Subscription storage is non-volatile COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  No Limitations  Notification Class Object Read Operations Supported Object_Identifier Object_Name Returns "Map Descriptor			client side
Supported SubscribeCOV Present_Value Subscription storage is non-volatile COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  No Limitations  Notification Class Object Read Operations Supported Object_Identifier Object_Name Returns "Map Descriptor			
Supported SubscribeCOV Present_Value Subscription storage is non-volatile COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification Present_Value, Status Confirmed and Unconfirmed  No Limitations  Notification Class Object Read Operations Supported Object_Identifier Object_Name Returns "Map Descriptor	Data Sharing Operations	Properties Supported	Comments and Limitations
SubscribeCOV Present_Value Subscription storage is non-volatile COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported Event Notification AcknowledgeAlarm Properties Supported Comments and Limitations Confirmed and Unconfirmed No Limitations  Notification Class Object Read Operations Supported Object_Identifier Object_Name Read Property  No Limitations Read Property Returns "Map Descriptor	• •		
COVNotification Present_Value Confirmed and Unconfirmed  Alarm and Event Operations Supported  Event Notification Present_Value, Status Confirmed and Unconfirmed No Limitations  Notification Class Object  Read Operations Properties Supported Comments and Limitations  Notification Class Object  Read Operations Object_Identifier No Limitations  Read Property Object_Name Returns "Map Descriptor"		Present Value	Subscription storage is non-
Alarm and Event Operations Supported Comments and Limitations  Event Notification Present_Value, Status Confirmed and Unconfirmed  AcknowledgeAlarm No Limitations  Notification Class Object  Read Operations Supported Comments and Limitations  Notification Class Object  Read Operations Object_Identifier No Limitations  Read Property Object_Name Returns "Map Descriptor"	545561156667	Tresent_value	, ,
Alarm and Event Operations Supported Event Notification AcknowledgeAlarm  Notification Class Object Read Operations Supported  Object_Identifier Object_Name  Comments and Limitations Confirmed and Unconfirmed No Limitations Comments and Limitations Returns "Map Descriptor	COVNotification	Present Value	
Operations Supported         Event Notification       Present_Value, Status       Confirmed and Unconfirmed         AcknowledgeAlarm       No Limitations         Notification Class Object         Read Operations       Properties Supported       Comments and Limitations         Supported       Object_Identifier       No Limitations         Read Property       Object_Name       Returns "Map Descriptor			
Operations Supported         Event Notification       Present_Value, Status       Confirmed and Unconfirmed         AcknowledgeAlarm       No Limitations         Notification Class Object         Read Operations       Properties Supported       Comments and Limitations         Supported       Object_Identifier       No Limitations         Read Property       Object_Name       Returns "Map Descriptor	Alarm and Event	Properties Supported	Comments and Limitations
Event Notification Present_Value, Status Confirmed and Unconfirmed AcknowledgeAlarm No Limitations  Notification Class Object  Read Operations Properties Supported Comments and Limitations Supported Object_Identifier No Limitations  Read Property Object_Name Returns "Map Descriptor			
AcknowledgeAlarm  No Limitations  Notification Class Object  Read Operations Supported  Object_Identifier Object_Name  No Limitations  No Limitations  Returns "Map Descriptor		Present Value Status	Confirmed and Unconfirmed
Notification Class Object  Read Operations Supported  Object_Identifier Read Property Object_Name  No Limitations Returns "Map Descriptor		· · · · · · · · · · · · · · · · · · ·	
Read Operations Supported         Properties Supported         Comments and Limitations           Object_Identifier         No Limitations           Read Property         Object_Name         Returns "Map Descriptor	, total owied ger italiii		1 10 Entitledions
Read Operations         Properties Supported         Comments and Limitations           Supported         Object_Identifier         No Limitations           Read Property         Object_Name         Returns "Map Descriptor	Notification Class Object		
Supported     Object_Identifier     No Limitations       Read Property     Object_Name     Returns "Map Descriptor	•	Properties Supported	Comments and Limitations
Object_Identifier   No Limitations     Read Property   Object_Name   Returns "Map Descriptor	-		
Read Property Object_Name Returns "Map Descriptor		Object Identifier	No Limitations
	Read Property		
	, ,	, -	1



		B . M .: 6:		
	Object_Type	Returns Notification Class		
		Object type		
	Description	No Limitations		
	Notification_Class	No Limitations		
	Priority	No Limitations		
	Ack_Required	No Limitations		
	Description	This Property is supported		
	Recipient List	No Limitations		
Read Property Multiple	Same properties as Read Property	Read property Multiple is fully		
		supported. Multiple objects		
		with multiple properties can		
		be specified		
Write Operations	Properties Supported	Comments and Limitations		
Supported				
Write Property	Recipient List	RecipientList storage is non-		
Write Property Multiple	Nedipient_List	volatile		
AddList	RecipientList	Used to subscribe to Alarm		
		and Event Notifications		
<b>Unsupported Functions A</b>	nd Data Types			
<b>BACnet Object Type not S</b>	upported			
Averaging Object				
Calendar Object				
Command Object				
Event Enrollment Object				
File Object				
Group Object				
Life Safety Point Object				
Life Safety Zone Object				
Loop Object				
Notification Class Object unsupported on Client side only				
Program Object	apported on enemialide only			
Schedule Object				
Schedule Object				
BACnet Services not Supp	orted			
•				
Alarm and Event Services unsupported on Client side only File Access Services				
Virtual Terminal Services				
COV and EventNotification services are not supported for BACnet				
MSTP on the ProtoCessor				
	Arcnet , COV services are disabled by def	fault and may be enabled by		
	•	· · · · · · · · · · · · · · · · · · ·		
setting the Node_Option property to COV_Enable in the Nodes section configuration file.				



## **Modbus TCP Protocol Driver Description**

PG-102-101-AA MODE	Client Server	Nodes:1 Only 1 client node allowed on Multidrop systems Nodes:255 Actual electrical loading may	
		reduce number of usable Server nodes	
		Server floues	
	Ethernet		
Formal Driver Type	Client or Server		
Connection	Connection Type:	Ethernet	
Information	Ethernet Speed Supported:	10Base-T, 100Base-T <sup>1</sup>	
Data Type Supported	I		
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 Tura	Commonto		
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		

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