



PG-106-104-AA JCI Metasys N2 to SNMP Protocol Converter

PG-106-104-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-106-104-AA Gateway model supports JCI Metasys N2 and SNMP 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 SNMP client, the PG-106-104-AA can read data from your SNMP devices and publish it as JCI Metasys N2 data. Also, it can write commands sent from the JCI Metasys N2 side to the SNMP devices.

When configured as a JCI Metasys N2 client, the PG-106-104-AA can read data from your JCI Metasys N2 devices and publish it as SNMP data. Also, it can write commands sent from the SNMP side to the JCI Metasys N2 devices.

The PG-106-104-AA can be configured to behave as a server on both SNMP and JCI Metasys N2 interfaces. This mode is useful when data exchange is required between a SNMP client (for eg. SCADA) and a BACnet IP client (for eg. a Building Management System).

PG-106-104-AA can be configured to behave as a client on both SNMP and JCI Metasys N2 interfaces.

PG-106-104-AA gateways have benefitted system integrators worldwide with its powerful line of gateways. Additionally, PG-106-104-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-106-104-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

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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	2
	RS-232	-
	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	

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JCI Metasys N2 Protocol Driver Description

PG-106-104-AA Mode	Comments	
Client	Nodes: 1 Only 1 client node allowed on Multidrop systems. Can communicate with: - N2Open - VMA 1400 series (AI, BI, AO, BO and custom types) -DX9100/XT9100	
Server	Nodes: 255	
Formal Driver Type	Serial	
	Client	
	Server	
Connection Information		
Connection type:	RS-485 (Two-wire, Half Duplex)	
Baud Rates:	9600 (N2 Standard)	
Data Bits:	8	
Stop Bits:	1	
Parity:	None	
Multidrop Capability:	Yes	
N2Open Functions:		
Data Type Supported		
PG-106-104-AA Data Type	Description	
Analog_Input	Analog Input (AI)	
Digital_Input	Binary Input (BI)	
Analog_Output	Analog Output (AO)	
Digital_Output	Binary Output (BO)	
Float_Reg	Internal Float value (ADF)	
Integer	Internal Integer value (ADI)	
Byte	Internal Byte value (BD)	
Read Operations Supported		
PG-106-104-AA As a Client		PG-106-104-AA As a Server
Read Current Value (all data types) direct read, Change-of –State (COS) poll		Read Current Value (all data types) direct read, Change-of –State (COS) poll
Read Attribute (all data types): direct read, specifying a legal attribute number		Read Attribute (all data types): direct read, specifying a legal attribute number
Identify Self Command		Identify Self Command
Read All Attributes (Optional): These commands are used to read all attributes of specified (Analog Input, Binary Input, Analog Output, Binary Output) object without specifying attribute number.		Read All Attributes (Optional): These commands are used to read all attributes of specified (Analog Input, Binary Input, Analog Output, Binary Output) object without specifying attribute number.

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Write (Control) Operations Supported	
PG-106-104-AA As a Client 2	PG-106-104-AA As a Server 2
Override Current Value (All data types) implemented as Write on PG-106-104-AA	Override Current Value (All data types) implemented as Write on PG-106-104-AA
Override Release (all data types)	Override Release (all data types)
Write Attribute (all data types) direct write, specifying a legal attribute number	Write Attribute (all data types) direct write, specifying a legal attribute number
Write characterize Attributes (Optional). These commands are used to set all attributes that characterize the specified (Analog Input, Binary Input, Analog Output or Binary Output) object without specifying an attribute number.	Write characterize Attributes (Optional). These commands are used to set all attributes that characterize the specified (Analog Input, Binary Input, Analog Output or Binary Output) object without specifying an attribute number.
Write Internal Parameter Command (Optional). This command is used to change the value attribute of internal parameter objects without specifying an attribute number.	Write Internal Parameter Command (Optional). This command is used to change the value attribute of internal parameter objects without specifying an attribute number.
Unsupported Functions and Data Types	
Function	Reason
Read Memory	Not Required
Diagnostics	
Warm Start	
Message	Not Required
Status Update	
Message	Not Required
Programming messages (download, upload)	
Time Synch Not supported	Time Synch PG-106-104-AA clocks are updated on receipt of this command.
VMA Functions:	
Data Types Supported	
PG-106-104-AA Data Type	Description
Analog_Input	Analog Input (AI)
Digital_Input	Binary Input (BI)
Analog_Output	Analog Output (AO)
Digital_Output	Binary Output (BO)
Float_Reg	Internal Float value (ADF)
Integer	Internal Integer value (ADI)
Byte	Internal Byte value (BD)
Read Operations Supported	
PG-106-104-AA As a Client	PG-106-104-AA As a Server
Read Current value (all data types)	Not Applicable

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Direct Read, Change-of-State (COS) poll		
Write (Control) Operations Supported		
PG-106-104-AA As a Client		PG-106-104-AA As a Server
Write/Override Current value (all data types) implemented as Write on PG-106-104-AA		Not Applicable
Override Release (AI and BI only) uses writes for outputs and internal values		
Unsupported Functions and Data Types		
Function		Reason
Programming messages(upload,download)		Not required – PG-106-104-AA is a data transfer device
DX9100 Functions:		
Data Types Supported		
PG-106-104-AA Data Type	Description	
	Supported sections of Address Map:	
	General control module	
	Programmable modules 1-12	
	Analog input modules 1-8	
	Analog output modules 1-2	
	Digital output modules 3-8	
	Extension modules 1-8	
	Time schedules 1-8	
	Optimal start/stop modules 1-2	
	Analog output modules 9-10	
	Auxiliary analog output modules 11-13	
Read Operations Supported		
PG-106-104-AA As a Client		PG-106-104-AA As a Server
Read of all points supported		Not Applicable
Write (Control) Operations Supported		
PG-106-104-AA As a Client		PG-106-104-AA As a Server
Write of all points supported		Not Applicable
DX9100 may not allow writes to specific values		
Unsupported Functions and Data Types		
Function		Reason
Programming messages		Not required – PG-106-104-AA is a data transfer device



SNMP Protocol Driver Description

PG-106-104-AA Mode		Comments
Client	Nodes: Limited by hardware memory capacity. Each Node is specified by a unique IP address	
Server	Nodes:1 As a Server the SNMP driver can act as a single Node.	
Formal Driver Type		
	Ethernet	
	Client (Active or Passive) or	
	Server	
Connection Information		
Connection Type:	Ethernet	
Ethernet Speeds Supported:	10Base-T, 100Base-T ¹	
Data Type Supported		
PG-106-104-AA Data Type	Description	
Integer		
Octet_Stream	Character Strings	
Timer_Tricks	Timer values in 1/100ths of a second	
Read Operations Supported		
PG-106-104-AA As a Client	PG-106-104-AA As a Server	
SNMP Get Request	SNMP Get Request	
SNMP GetNext Request/SNMP Walk	SNMP GetNext Request/SNMP Walk	
Write (Control) Operations Supported		
PG-106-104-AA As a Client	PG-106-104-AA As a Server	
SNMP Set Request	SNMP Set Request	
Unsolicited Operations Supported		
PG-106-104-AA As a Client	PG-106-104-AA As a Server	
Receive Traps specified by OID Data stored by matching OID or by using OID string values to form lookup string.	Send Traps specified by OID Trap sent based on data change rules, periodic or on source data update.	
Unsupported Functions and Data Types		
Data Types	Reason	
Only the following SNMP	Further types will be implemented as required.	

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Data Types are Supported: Integer Octet_Stream Timer_Tricks String	
MIB-2 variables not specified above.	The PG-106-104-AA primarily being a protocol converter, these variables are not necessary.
Unsupported Devices or Protocol Options	
Protocol Versions	Details
SNMPv2, SNMPv3	Not Supported

