



PG-140-100-AB Honeywell Zellweger to Modbus RTU Protocol Converter

PG-140-100-AB 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-140-100-AB Gateway model supports Honeywell Zellweger and Modbus RTU protocols. It is a Bi-directional Converter that can be configured as a Client on Honeywell Zellweger side and a Server/Client on Modbus RTU protocol interface.

When configured as a Honeywell Zellweger client, the PG-140-100-AB can read data from your Honeywell Zellweger fire panel and publish it as Modbus RTU data. Also, it can write commands sent from the Modbus RTU side to the Honeywell Zellweger fire panel.

When configured as a Modbus RTU client, the PG-140-100-AB can read data from your Modbus RTU devices and publish it as Honeywell Zellweger type data. Also, it can write commands sent from the Honeywell Zellweger side to the Modbus RTU devices.

The PG-140-100-AB can be configured to behave as a server on Modbus RTU interfaces. This mode is useful when data exchange is required between a Honeywell Zellweger client (for eg. SCADA) and a Modbus RTU client (for eg. a Building Management System).

The PG-140-100-AB can be configured to behave as a client on both Honeywell Zellweger and Modbus RTU interfaces.

PG-140-100-AB gateways have benefitted system integrators worldwide with its powerful line of gateways. Additionally, PG-140-100-AB 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-140-100-AB.

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	



Honeywell Zellweger Protocol Driver Description

Connection Facts		
Mode	Nodes	Comments
Client	3	Tested only 2 Nodes (IR-148 8 point and IR-148 4 point) on separate networks.
Server	3	Developed to test Client side of the Driver.
Formal Driver Type	Passive Client	
	Active Server	
Connection Information		
Connection Type:	RS-485 (Two wire, Half-Duplex)	
Baud Rates:	19200 (Vendor Limitation)	
Data Bits:	8 (Vendor Limitation)	
Stop Bits:	1 (Vendor Limitation)	
Parity:	None	
Multidrop Capability:	Yes	
Devices Tested		
Device	Tested (Factory Site)	
Honeywell Zellweger IR-148	Factory (only IR-148 8 point unit)	
Honeywell Zellweger IR-148	Site (only IR-148 4point unit)	



Write (Control) Operations supported

Message Types	Notes
Gas Value Message	Message reports a gas value and units.
Trouble Message	Message reports a trouble for one sensor
Blank Message	Message used to flash IR- 148 display
Alarm Message	Message reports an alarm (C/W/A) for one sensor
Locked Point Message	Unit is locked onto a single sample.
Other 49 byte messages beginning 0xb1	Discarded but driver reports stats on these messages.
Other 49 byte messages	
Other messages	



Data Storage (Default)

Offset	Sensor	Contents	Description
0	1	Alarm or Trouble	Set non-zero if alarm or a trouble has been reported, else set zero.
1	1	Alarm Type	0 = None 1 = Caution 2 = Warning 3 = Alarm
2	1	Trouble	0 = None 1 = Trouble
3	1	Gas Value	Gas value multiplied by 100 is stored here. If configured, scaling will be applied.
4	1	Gas Units	1 st 3 bytes of gas units are written here as ASCII characters.
5	1	Gas Units	
6	1	Gas Units	
7	1	State	0 = Enabled 1 = Disabled
8	1	Gas Value Valid	1 = Gas Value updated with most recent message. 0 = Gas Value not updated.
9	1	Gas Value Age	In seconds since last update. Initial (and max) value = 0xffff
10	1	Sensor Data Age	Time since last message containing data about this sensor in seconds since last update. Initial (and max) value = 0xffff
11..21	2		
22..32	3		
33..43	4		
44..54	5		
55..65	6		
66..76	7		
77..87	8		



Data Storage (Extended)

Offset	Sensor	Contents	Description
0	1	Alarm or Trouble	Non-zero if alarm or a trouble has been reported. Zero if neither are currently being reported.
1	1	Alarm Type	0 = None, 1 = Caution, 2 = Warning, 3 = Alarm
2	1	Trouble	0=None, 1=Trouble
3	1	Gas Value	Gas value multiplied by 100 is stored here. When stored, if configured, scaling will be applied.
4	1	Gas Units	1 st 3 bytes of gas units are written here as ASCII characters.
5	1	Gas Units	
6	1	Gas Units	
7	1	State	0 = Enabled, 1 = Disabled
8	1	Gas Value Valid	1 = Gas Value updated with most recent message. 0 = Gas Value not updated.
9	1	Gas Value Age	In seconds since last update. Initial (and max) value = 0xffff
10	1	Sensor Data Age	Age since last message, containing data from this sensor in seconds. Initial (and max) value = 0xffff
11	1	I/O State	255 = unknown, 0=Warm up, 1 = Ready, 2 = Trouble, 3= Cal/Setup
12	1	Alarm Latched Status	0=No, 1=Yes
13	1	Audion On Status	0=No, 1= Yes
14	1	Alarm Latching Preference	On Caution (0=No, 1= Yes)



15	1	Alarm Latching Preference	On Warning(0=No, 1= Yes)
16	1	Alarm Latching Preference	On Alarm(0=No, 1= Yes)
17	1	Audio On Preference	On Caution (0=No, 1= Yes)
18	1	Audio On Preference	On Warning(0=No, 1= Yes)
19	1	Audio On Preference	On Alarm(0=No, 1= Yes)
20	1	Audio On Preference	On Trouble(0=No, 1= Yes)
21	1	Audio On Preference	On Auxiliary(0=No, 1= Yes)
22-24	1	Spare	
25..49	2		
50.-74	3		
75.-99	4		
100-124	5		
125..149	6		
150.-174	7		
175.-199	8		



ModBus RTU Protocol Description

PG-140-100-AB Mode	Comments
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	Serial
	Client or Server
Connection Information	Connection Type: RS-232 or RS-485(Two wire, half-duplex)
	Baud Rate: 110-115200, standard baud rates only
	Data Bits: 7,8
	Parity: Even, odd, None
	Multidrop Compatibility: Yes
Function Code Supported	
Function Codes	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)

Dimensions:

