ProtoConvert – Modbus RTU / JSON gateway

PG-100-113

The PG-100-113 is an embedded remote monitoring and control solution for Modbus RTU devices. This unit can connect with Modbus RTU based field slave devices (on RS232 or RS485) and provide the data in JSON format.

It is possible to configure the unit as JSON client thereby posting the data to a remote endpoint.

Hardware Specifications:

SoC		BCM2835, ARM1176JZ-F core, 700MHz
RAM memory		512Mbyte
Flash memory		4Gbyte eMMC
Power supply		
Supply voltage		8 ... 28V DC
Power consumption	CPU 100% load, Ethernet 100Mbit active	155 mA Supply current @ 12V
Interfaces		
Ethernet		1 x Ethernet 10/100-Mbit, Auto MDI-MDIX, RJ-45
RS-232		1 x RS-232 (RXD, TXD, RTS, CTS), DB9 male
RS-485		1 x RS-485, terminal blocks
Standards		
EU standard		EN 61326-1:2013
Environment		
EMC		EN 55011 group 1 class A, EN 55011 group 1 class B
Operating Temperature		0 °C ~ 50 °C 8
Operating Relative Humidity		5 ~ 95%, non-condensing
Storage Temperature		-25 °C ~ 80 °C
Protection Rating		IP20

Optional:

GSM/GPRS modem on board Model code: **PG-100-113-M**

Modbus RTU Driver Specifications:

Driver Type: Client/Master

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 Capability:	Yes

Function codes 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)
15	Force Multiple Coils (0xxxx)
16	Preset Multiple Registers (4xxxx

Data Types supported:

Unsigned/Signed 16

Single precision Float, Single precision swapped float

Long integer, Long integer swapped

Bit

JSON Driver specification:

Driver type: Client

Output sample:

{"converterId":"123","deviceId":"123","protocol":"Modbus","timeStamp":"09/11/2017 19:04:00","registers":[{"address":"3901","value":"22.07"}]}