Programmable Industrial Protocol Converter :

- DIN Rail or Panel Mounted compact Protocol Converter

- DB9 Serial ports in any combination of RS232 / RS422 / 2 or 4 wire RS485 / CMOS

- Connects PLC to PLC or PLC to a Modbus Network (as a Master or Slave)

- Allows data sharing between PLC, Invertors, Controllers and other network devices

- Common model for connecting different devices. Several PLC and Invertors supported

- Direct connection to the Programming terminal saves additional hardware

- Low power consumption of only 2.5 Watts

- Common Programming software for the entire Gateway family.........FREE!!
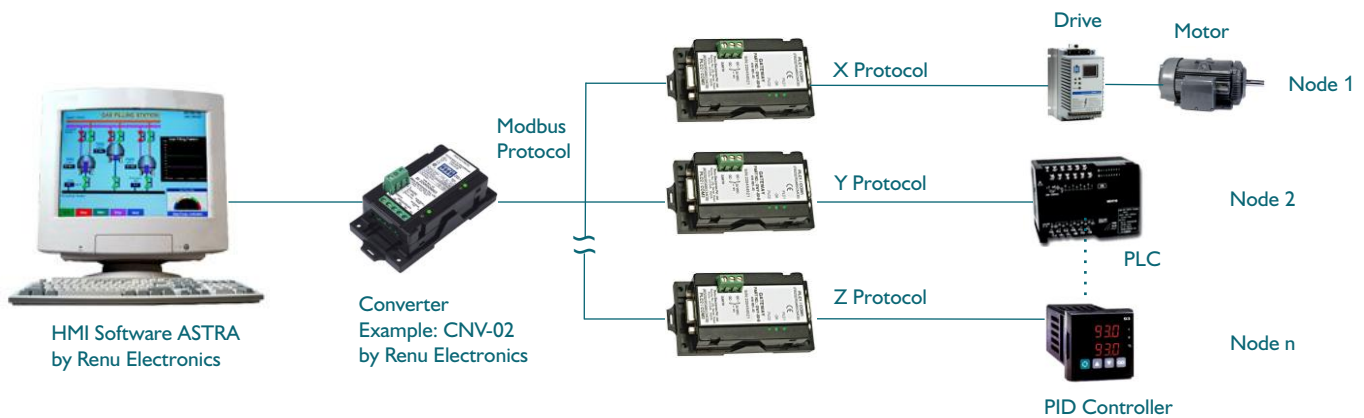
- CE, UL certification

Possible Applications :

GWY-00 connects one field device to another over a serial link irrespective of their protocols. The user can define the blocks of registers to be fetched from one device and to be transferred to the other. Our users have used GWY-00 units in different applications across many industries. The typical configuration includes the following:
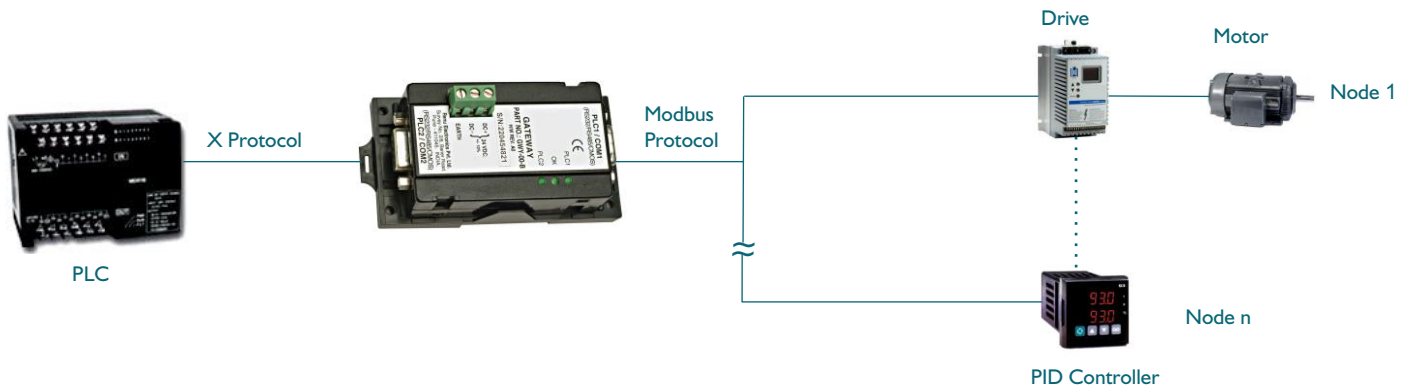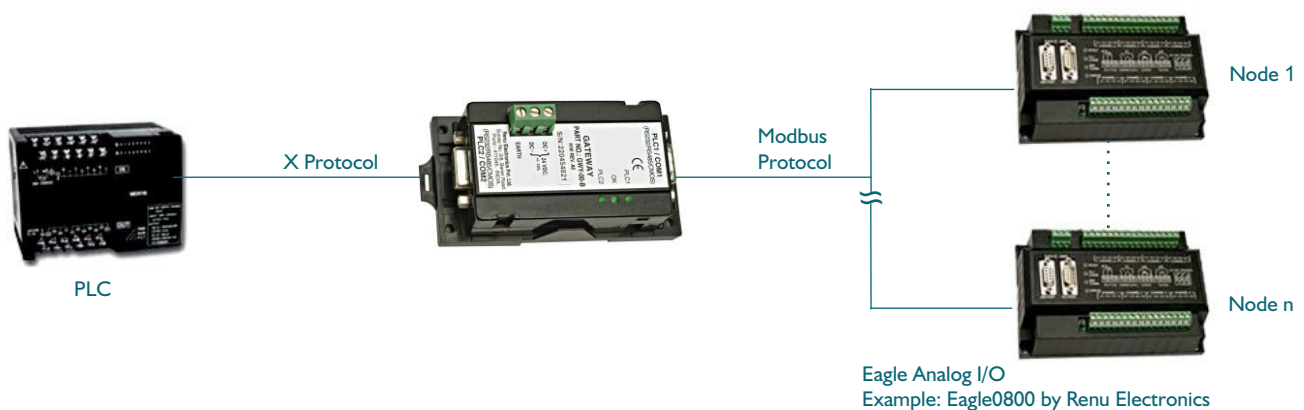
1. PLC to PLC Communication

PLC 1 — X Protocol — GATEWAY — Y Protocol — PLC 2

2. PLC / Inverter / Controller as slaves on Modbus network

HMI Software ASTRA by Renu Electronics

Converter Example: CNV-02 by Renu Electronics

Modbus Protocol

X Protocol — Drive — Motor — Node 1

Y Protocol — PLC — Node 2

Z Protocol — PID Controller — Node n

3. PLC as master in Modbus network

PLC — X Protocol — GATEWAY — Modbus Protocol

Drive — Motor — Node 1

PID Controller — Node n

4. Add I/O to your PLC

PLC — X Protocol — GATEWAY — Modbus Protocol

Node 1

Node n

Eagle Analog I/O
Example: Eagle0800 by Renu Electronics

* Images not to Scale.

GWY-00 Operations :

GWY-00 is a Serial [#] Protocol Converter / Data sharer for devices like PLCs, Inverters, Controllers etc. Gateway has two serial ports that connect with two different devices. Gateway communicates with a device to get the information required by the other device.

Our Windows® based Gateway setup software makes it easy to configure the protocol converter. After choosing which protocol to use for each port, you program the Gateway to transfer the data blocks. Using a simple spreadsheet format, you simply program the Gateway to fetch a specified number of registers or bits from one device and transfer them to the other. Powerful software allows you to have all of the information transfers done continuously or allows the PLC to control which blocks of data is to be transferred.

System requirements for Gateway Setup Software are :
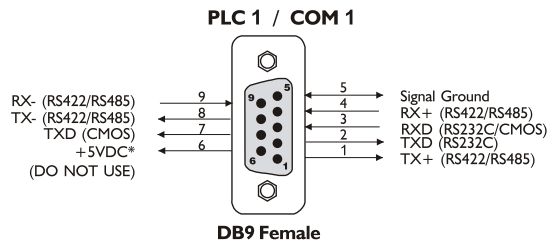Programming software is common for the entire Gateway family.

Windows Version	:	Microsoft Windows XP / 2000, Windows 7 / VISTA
Processor	:	PENTIUM or higher
Hard disk Space	:	5 MB or more
RAM	:	64 MB or more
Display resolution	:	800 X 600 (VGA) or better
Display colors	:	16 bit color

Other Accessories required for GWY-00 configuration and to use in actual application:
1. Gateway Configuration / Connecting Cable.**
2. Gateway Setup Software .
3. Devices with communication cables.

Communication Ports :

The GWY-00 has two identical communication ports, PLC1 / COM1 and PLC2 / COM2. These ports are compatible to RS232 / RS422 / RS485 and CMOS signal levels. The Pin-outs of these ports are as shown below:

PLC 1 / COM 1

RX- (RS422/RS485)	9	
TX- (RS422/RS485)	8	
TXD (CMOS)	7	
+5VDC*	6	
(DO NOT USE)		

5	Signal Ground
4	RX+ (RS422/RS485)
3	RXD (RS232C/CMOS)
2	TXD (RS232C)
1	TX+ (RS422/RS485)

DB9 Female

Do not use pin no. 6 of either of the GWY-00 communication ports.
**Refer our website (www.renuelectronics.com) for your specific Cable requirements*

Protocols supported for :

The GWY-00 currently supports the following PLCs :

- ABB (Modbus RTU)
- AB DH485 (SLC5 / 0x series)
- IDEC Micro[3] / C, IDEC MicroSmart, IDEC Open Net
- Discovery Panel
- K1339_Slave
- LG MasterK 80S-300S
- METTLER TOLEDO Weighing Scales
- Moisture Analyzer (Alpha Moisture Systems)
- Omron Host Link
- Siemens-S7-200 Series
- Siemens S7-300 Series
- Toshiba T series (Programming Port)
- Toshiba T1, T2, T3, V series (Link Port)
- Yaskawa Drives

- AB DF1 Full Duplex (Micrologix / SLC5/0x / PLC5/30)
- Aromat FP0 / FP1 / FP2 / FP Sigma and FPM
- Delta (Modbus RTU)
- GE Fanuc Series 90-30, VersaMax
- Keyence KV
- Messung XMP-8 / NEXGEN 4000 / NEXGEN 5000
- Mitsubishi FX
- Modbus Master, Modbus Slave
- SARTORIOUS Weighing Scales
- RHEONIC Mass Flowmeter
- Telemecanique TSX07/37/57
- Twido (Modbus RTU)
- USS Protocol

GWY-00 can communicate with all the above PLCs using different communication cables. Some of the above mentioned PLCs connect to PLC1 / COM1 port and some to PLC2 / COM2 port of Gateway. For detailed information on Gateway, visit our Website: www.renuelectronics.com or contact factory.

GWY-00 can also support following PLCs on request:

- Baldor Drives
- Idec Micro 1 / FA2Jr PLCs
- Taian TP02 Series

- Crouzet
- Koyo
- Telemecanique 17, 47 & 67 Series

New PLC drivers are constantly added. Please contact factory for more information.
We welcome an opportunity to develop new, custom drivers and customization of Gateway products.

[#] **Serial Protocols** are protocols for PLCs, Inverters, PID Controllers, Energy Meters, Weighing Scales and Flow Meters etc.

Note :- 9600 baud rate is recommednded for Modbus (Master/ Slave) while using it with MPI Protocol.
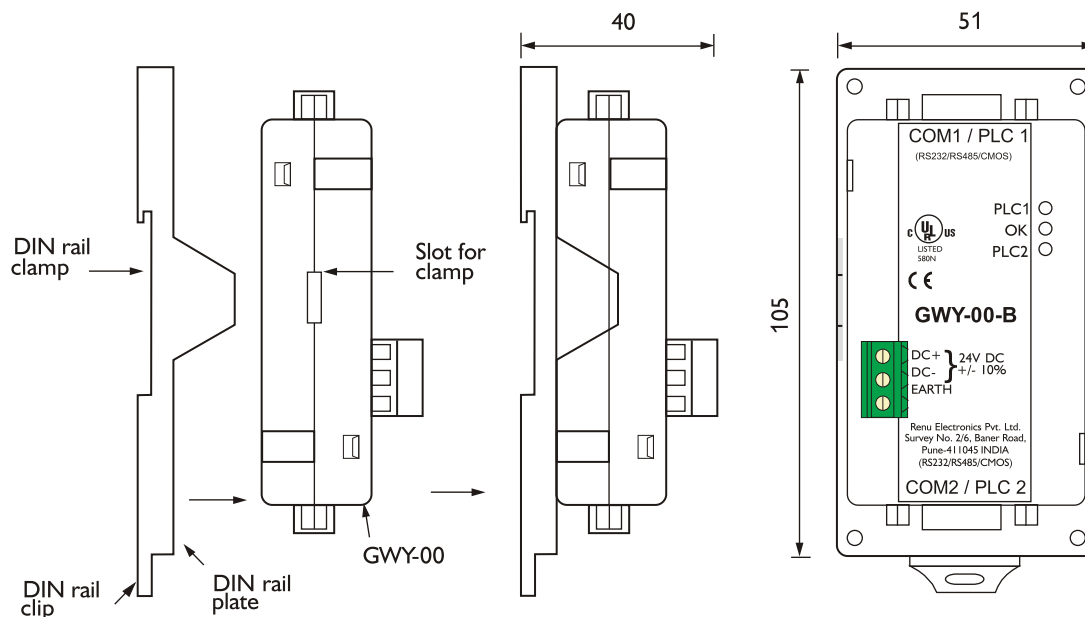
Specifications :

Power	:	+24V DC ± 10%, 100mA max
LED's	:	3 LED's for status indication
Communication Ports	:	2 Communication ports with RS232 / RS422 / RS485 / CMOS (Isolation between communication ports and Power supply, through DC-DC coupler is 1 KV)
PLC1	:	Connects to PC for setup download or connects to PLC1 at runtime.
PLC2	:	Connects to PLC2. (Isolation between communication ports, through opto-isolation is 1KV for 1 min)
Temperature	:	Operating : 0° to +60° C Storage : -20° to +80° C
Humidity	:	10% to 90% (Non condensing)
Mounting	:	DIN rail or back panel mounting
Dimensions (DIN rail)	:	105mm(L) X 40mm(D) X 51mm(W)
Weight	:	125 gm approx.
Certifications	:	CE, UL.
Immunity to ESD	:	as per IEC61000-4-2
Immunity to Fast Transients	:	as per IEC61000-4-4
Immunity to Radiated electromagnetic field	:	as per IEC61000-4-3
Immunity to Conducted disturbances	:	as per IEC61000-4-6
Surge	:	as per IEC61000-4-5
Radiated emission	:	as per EN61000-6-4

Models :

Series/Model	Technology	Protocol
GWY-00	Serial	Various
GWY-100	LonWorks	LonTalk
GWY-300	CANBUS	CAN (J1939/CANopen)
GWY-500	Profibus	Profibus-DP-V0
GWY-610	Ethernet	Modbus TCP/IP
GWY-800	HART	HART
GWY-900	GSM	Various

Dimensions :

Gateway units are shipped with a separate DIN rail plate which can be attached to the unit, if desired. The user can use the unit with or without the DIN rail plate. Following sketch shows dimensional details of Gateway with the DIN rail plate.

All dimensions are in mm.

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An ISO 9001 : 2008 and ISO 14001 : 2004 certified company