

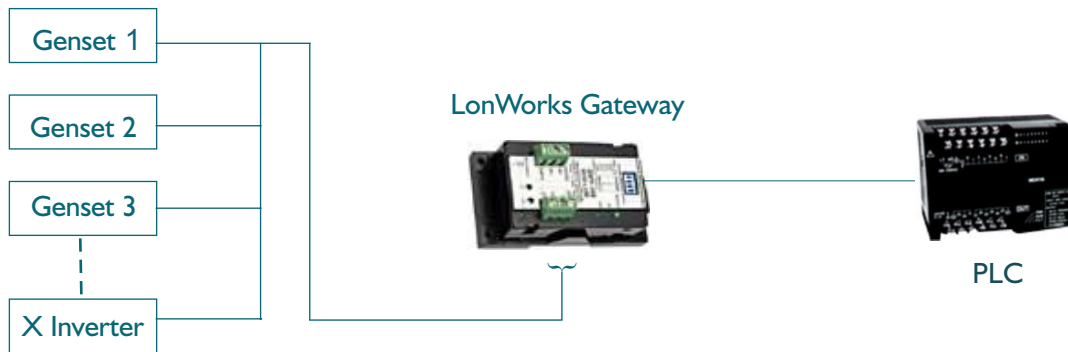


### LonWorks Gateway Features :

- DIN Rail or Panel Mounted compact Protocol Converter
- Hardware with two communication ports  
COM1: RS232 / RS422 / 2 or 4 wire RS485 / CMOS  
COM2: LonWorks TP FT10 (78 Kbps, free topology)
- Connect your LonWorks device to serial device or vice versa
- Connect your LonWorks device on Modbus Network (as a Master / Slave)
- Same model can be re-configured for connecting different devices
- Supports up to 62 network variables
- Free software for Gateway and SNVT variables configuration!!
- CE with UL certification
- We welcome opportunity to develop new / customized drivers for UNVT templates

# Possible Applications :

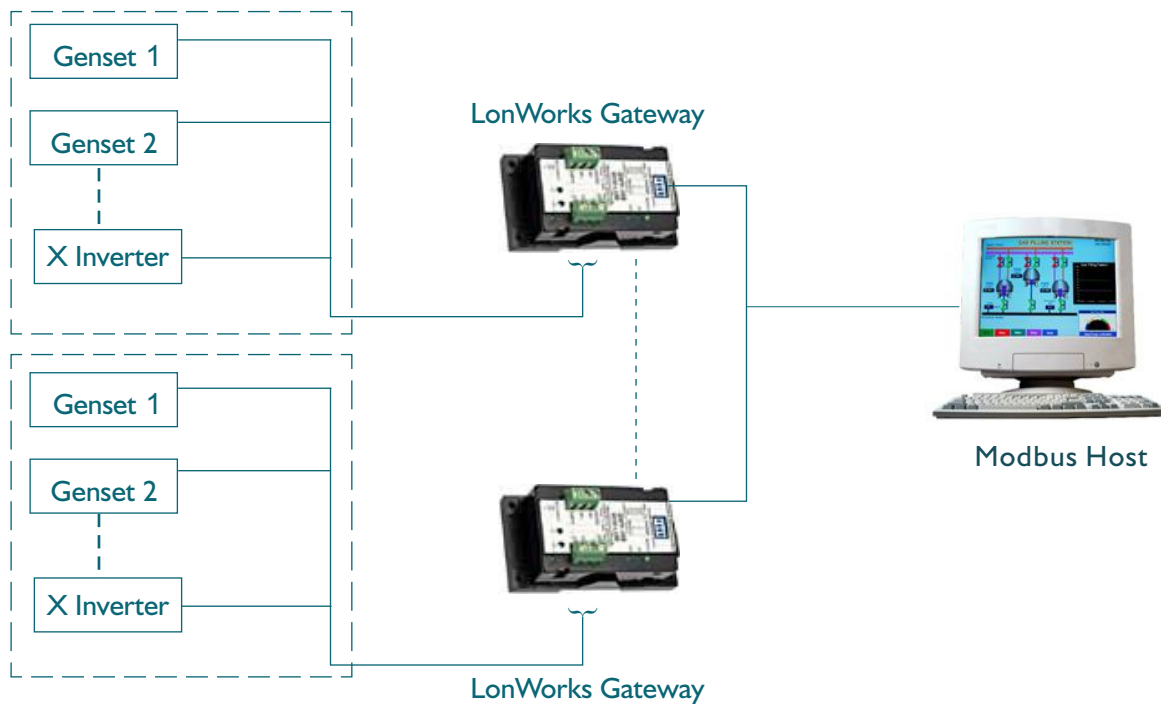
## 1. Multiple LonWorks Devices connected to one PLC



## 2. Multiple LonWorks Devices connected to Modbus Host



## 3. Multiple LonWorks Networks and multiple LonWorks Gateways



# GWY-100 Operations :

The LonWorks Gateway communicates between a LonWorks network interface on one side and various serial protocols on the other side (e.g. Modbus ASCII / RTU etc.). It allows LonWorks devices to make available their LonWorks variables for PLCs or SCADA. It also makes possible for serial device to act as a LonWorks node.

It is externally powered from 3 pin terminal block and power is isolated from both communication ports. Both the communication ports are also isolated from each other.

Microsoft Windows® based configuration software, Gateway Setup, helps the user to configure Gateway unit. 'Configuration' means making the Gateway unit work as per the system requirements. The complete configuration for a unit is termed as 'Project'. Project comprises of device names, Register addresses, Conditions for block execution etc.

Block may contain information like copy number of Words, Bits etc. from one device to other device and conditions for copy, if any. Gateway transfers data between two devices by execution of blocks.

After the Project is defined, Drivers for required devices and Project should be downloaded. Gateway can now communicate with the connected devices and transfers data between them.

## 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 the GWY-100 configuration and to use in actual application:

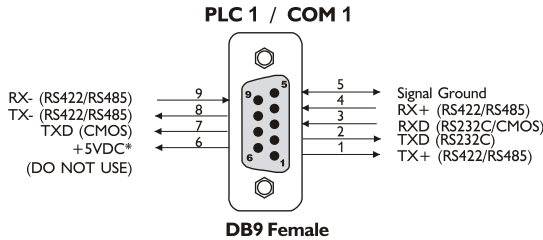
1. Gateway Configuration / Connecting Cable.\*\*
2. Gateway Setup Software .
3. Devices with communication cables.
4. Network Management Tool (Lonmaker) for installation of a node and binding of network variables.

**Note :** GWY-100 Supports up to 62 network variables. LonWorks Wizard allows the user to configure Gateway for SNVT variables. We welcome opportunity to develop new / customized drivers for UNVT templates.

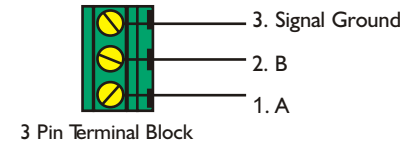
# Communication Ports :

GWY-100 has two communication ports COM1 and COM2. COM1 port is compatible to RS232 / RS422 / RS485 and CMOS signal levels.

The Pin-outs of these ports are as shown below :



LonWorks Side : TP/FT-10 (port 2)



*\*Do not use pin no. 6 of PLC1 / COM1.  
\*\*Refer our website ([www.renuelectronics.com](http://www.renuelectronics.com)) for your specific Cable requirements*

# LED Status :

## Service LED:

Flashing : Node has application but is not installed in the network. (Unconfigured node)

Solid : Node is unconfigured and applicationless. Indicates errors detected by the neuron self test routine

OFF : Node is configured and installed in the network.

## OK LED :

Flashing : IBM Download mode

Solid : PLC Communication OK

OFF : No firmware

## LON LED :

Flashing : Receiving frames from LonWorks network

## PLC1 LED :

Flashing : Receiving frames from PLC1 Port

# Switch Settings :

There are 4 switches which decide:

**Switch 1.** IBM Download

**Switch 2,3,4.** Specific Template Selection (If applicable)

# Protocols supported for :

The GWY-100 currently supports Modbus Master(RTU), Modbus Slave (ASCII / RTU), AB DF1, Schneider Inverters and Toshiba inverter protocols.

GWY-100 also supports LONMARK Functional Profile for Variable Speed Motor Drives-6010.

**GWY-100 can also support following PLCs on request:**

- ABB
- Aromat FP0 / FP1 / FP2 / FP Sigma and FPM
- Delta DVP Series
- IDEC Micro<sup>3</sup> / C, IDEC MicroSmart, IDEC Open Net
- LG MasterK 80S-300S
- Omron Host Link
- Taian TP02 Series
- Toshiba T series (Programming Port)
- AB DF1 Full Duplex (Micrologix / SLC5/0x / PLC5/30)
- Baldor Drives
- GE Fanuc Series 90-30, VersaMax
- Keyence KV
- Messung XMP-8 / NEXGEN 4000 / NEXGEN 5000
- Siemens-S7-200 Series
- Telemecanique 17, 47 & 67 Series
- Twido
- AB DH485 (SLC5 / 0x series)
- Crouzet
- Idec Micro 1 / FA2jr PLCs
- Koyo
- Mitsubishi FX
- Siemens S7-300 Series
- Telemecanique TSX07/37/57
- Yaskawa Drives

GWY-100 can communicate with all the above PLCs using different communication cables. For detailed information on Gateway, visit our

Website: [www.renuelectronics.com](http://www.renuelectronics.com) or contact factory.

**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.**

## Specifications :

Power	: 12 V DC to 32 V DC, 1.6 W
LED's	: 3 LED's for status indication and 1 LED for device configuration status
Communication Ports	: 2 Communication ports with
COM1	: RS232 / RS422 / RS485 / CMOS
COM2	: LonWorks Network Interface. TP FT-10 (78 Kbps, free topology) (Isolation between communication ports and Power supply, through DC-DC coupler is 1 KV)
COM1 / PLC1	: Connects to PC for setup download or connects to PLC1 at runtime.
COM2 / PLC2	: LonWorks Network Interface. TP FT-10 (78 Kbps, free topology) (Isolation between communication ports, through opto-isolation is 1KV rms 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 with UL certification
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

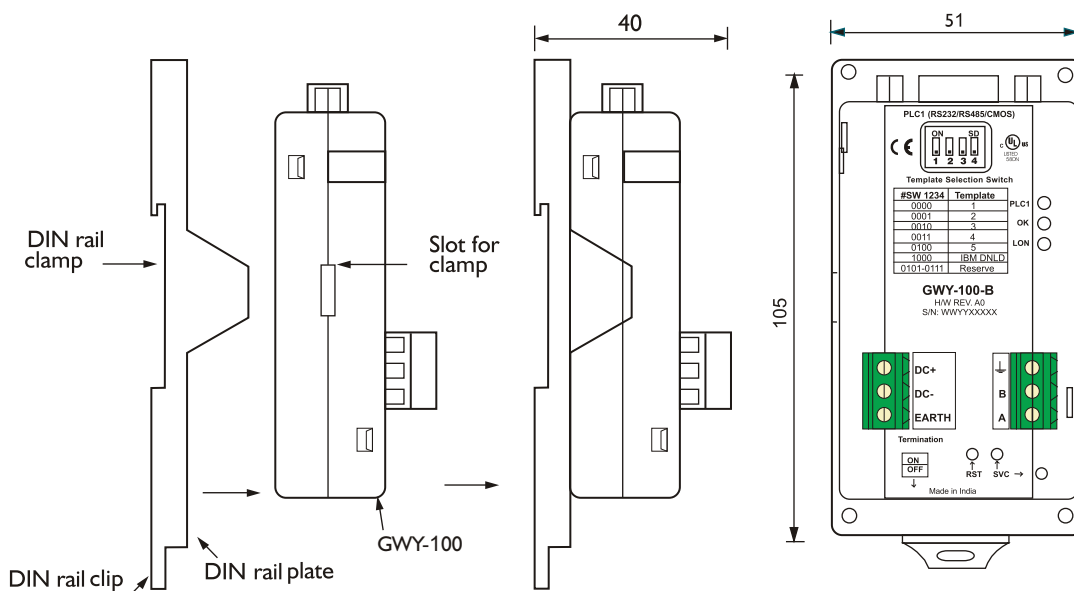
## Models :

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

**Note:** Contact factory for customized LonWorks Gateway applications (UNVT Templates).

## Dimensions :

GWY-100 unit is shipped with a separate DIN rail plate which has to be attached to the unit, if needed. User can use the unit with or without the DIN rail plate. Following sketch shows dimensional details of GWY-100 with the DIN rail plate.



All dimensions are in mm.



### FACTORY

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