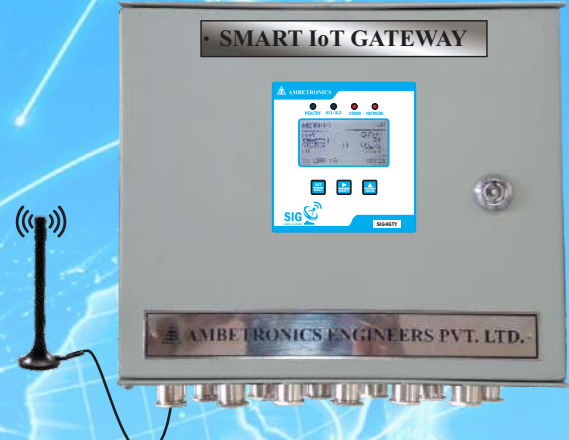




**SIG4GTY (WP)**



**SIG4GTY (MS)**

## OVERVIEW

SIG provides reliable and highly scalable solution for IoT deployment. SIG is a versatile device which read the MODBUS memory map of any RS-485 MODBUS protocol device and send the data to the cloud server. The data stored can be viewed as per customer requirement on dashboard. SIG is an ideal solution for online monitoring of RS-485 MODBUS data.

SIG mainly consist of GSM module and microcontroller based control circuit. SIG supports generic MODBUS RTU/MODBUS TCP-IP or MODBUS over TCP-IP Protocols for data acquisition and uses MQTT protocol to communicate with IT application database on cloud. Multiple slave devices can be configured to SIG. It remotely monitor all industrial sensor data to the cloud server.

## FEATURES

- 48 - Nodes Compatible with GSM / WiFi / Wireless Radio frequency (LoRa)
- Dual SIM slot for Redundancy
- Two settable Alarm set-points for each channel (High/Low)
- Communication Failure detection
- 4 - DPDT Relays
- Inbuilt Buzzer for Audio Alarm Indication
- Bi-colour L.E.D. indications for Alarms & Device status
- 24V DC Input / 12V DC Adaptor
- Ethernet/RS-485/RS-232 Input and Output Port (for SCADA/PLC/PC )
- 128 x 64 Graphical L.C.D. Display
- Pendrive Interface
- SMS / Email Notification
- MQTT Protocol
- Cloud Base Support System

		Nodes	Protocol	Input Communication		Output			Configuration	Notification	
Sr. No.	Model No.	No of Slaves	MQTT	RS-485	LoRa	4G GSM	WiFi	USB Logging	AEPL-IIoT Software	SMS	E-mail
1	SIG4LRN	48	✓		✓	✓		✓	✓	✓	✓
2	SIG4GTY	48	✓	✓		✓		✓	✓	✓	✓
3	SIGWGTY	48	✓	✓			✓		✓		

# TECHNICAL SPECIFICATION

## DEVICE CONFIGURATION

Nodes	: 48 Nodes Compatible with GSM / WiFi / Wireless Radio frequency (LoRa)
Configuration	: AEPL-IIoT PC Software
Operating Mode	: Programming and Applications
Security	: Password protected configuration

## GSM SPECIFICATION

Cellular connectivity	: 4G
SIM Slot	: 02 Nos.

## WiFi SPECIFICATION

Protocol	: 802.11 b/g/n
Frequency	: 2.4GHz

## LoRa SPECIFICATION

Modulation	: Wireless Radio frequency (LoRa)
Frequency	: IN865 MHz
Distance	: 1000 meter (Line-of-sight)

## DISPLAY & LED INDICATORS

Display	: 128 x 64 GLCD
Healthy	: Blue / Red
AL1/AL2	: Blue / Red
MODBUS Communication	: Blue / Red
Network	: Blue

## SERIAL INTERFACE

Interface mode	: RS-485 MODBUS RTU
Supported Baud Rates	: 9600, 19200, 38400, 57600
Parity	: None, Odd, Even
Stop Bits	: 1, 2
Protocol Supported	: MODBUS RTU/MODBUS TCP-IP or MODBUS over TCP-IP
Connector	: 3 pin terminal block (DB9/RJ45 Optional)

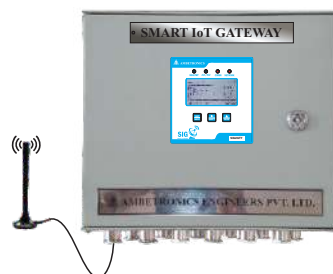
## ALERT & NOTIFICATION

SMS	: 10 Mobile numbers
E-mail	: 5 E-mail addresses
Buzzer	: Beep Sound
Relay	: 4 DPDT Relays

## AVAILABLE SOLUTION IN DIFFERENT ENCLOSURES



SIG4GTY-WP



SIG4GTY-MS



SIG4GTY-FLP

## CLOUD CONNECTIVITY

Protocol	: MQTT
Data Format	: JSON
Data Interval	: 1 to 60 mins.

## DATA STORAGE

Data Format	: CSV
Memory-1	: 32,000 - Records for Pendrive
Memory-2	: 65,000 - Records for Network failure

## ELECTRICAL SPECIFICATIONS

Operating Voltage	: 24V DC / 12V DC Adaptor
Reverse Power Protection	: Available
Overload Protection	: Available
Power Input	: Terminal Block / Power Adaptor

## ENVIRONMENTAL SPECIFICATIONS

Temperature Range	: -10° C to 50° C
Relative Humidity	: 10% to 90% RH, Non- Condensing

## HOUSING DETAILS

### SIG- WP

Protection class	: IP-65
Cabinet Material	: Polycarbonate, White colour
Cable Entry	: Thermoplastic cable gland (IP 68)
Dimension	: 271mm (H) x 170mm (W) x 60mm (D)
Mounting	: Wall Mounting / Stand Mounting / Pipe Mounting
Weight	: Approx 1 kg

### SIG- FLP

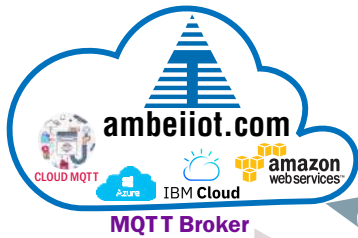
Protection class	: IP-66
Cabinet Material	: Cast Aluminium LM-6 Alloy.
Cable Entry	: ¾" E Type, Double Compression Cable Gland
Dimension	: 337mm (H) x 312 mm (W) x 173mm (D)-with cable gland
Mounting	: Wall Mounting / Stand Mounting
Weight	: Approx 7.5 kg

### SIG- MS

Protection class	: IP-20
Cabinet Material	: Metal sheet grey colour
Cable Entry	: Single Compression cable gland - ¾"(Metal)
Dimension	: 300mm (H) x 320mm (W) x 105mm(D) - with Cable Gland
Mounting	: Wall Mounting
Weight	: Approx 5.2 kg



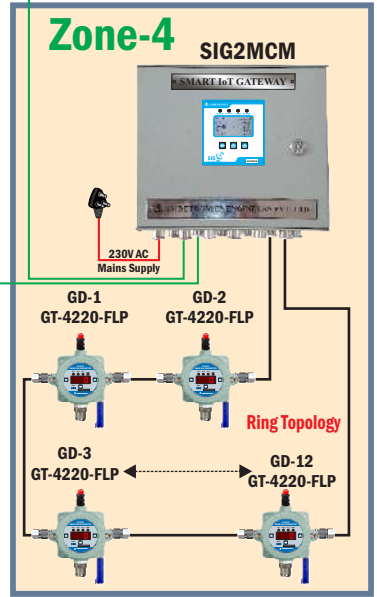
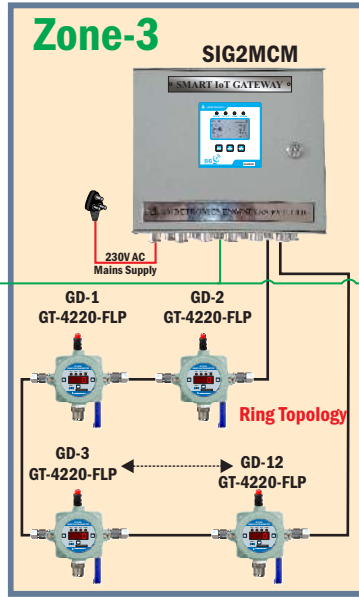
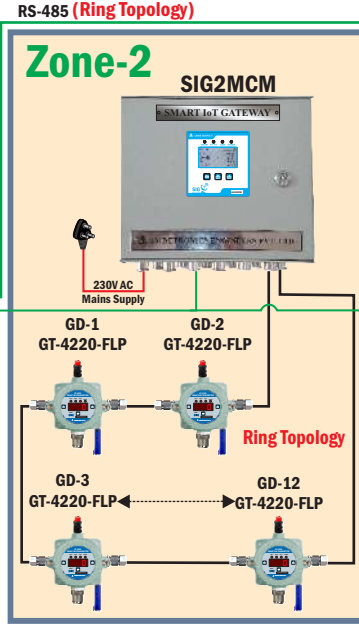
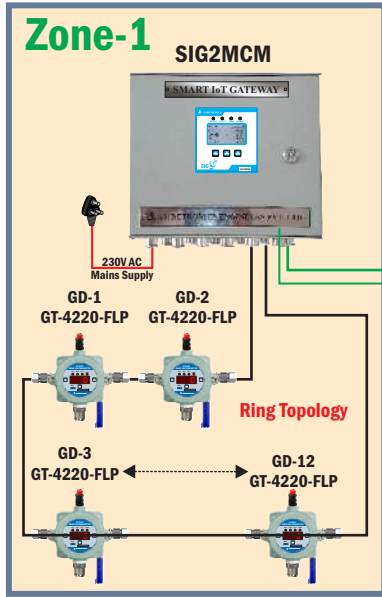
# Illustration of Smart IoT Gateway



With GSM



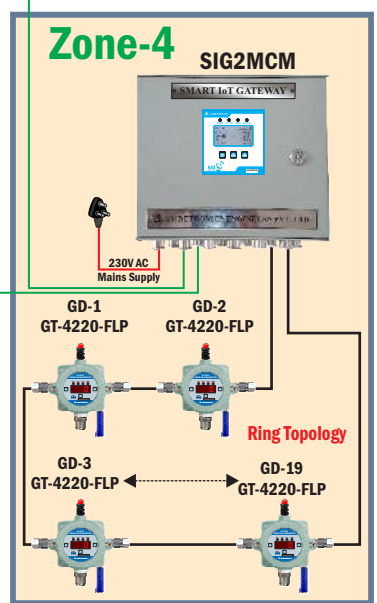
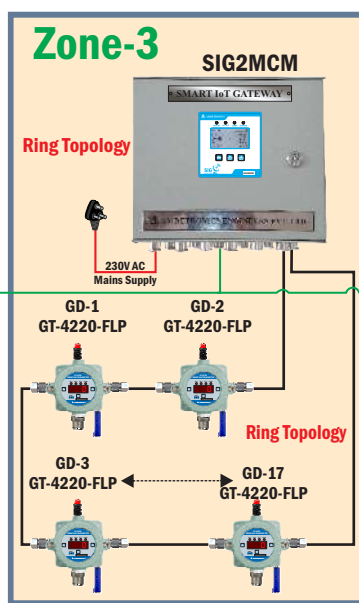
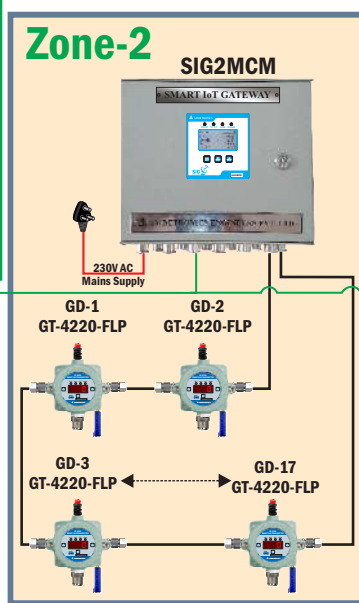
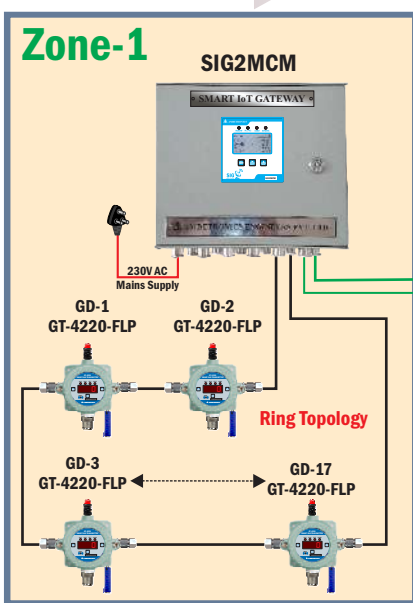
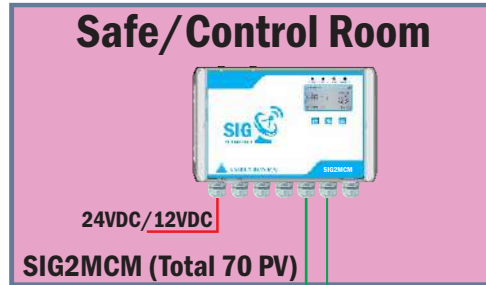
SMS & E-mail



RS-485 (Ring Topology)

RS-485 (Ring Topology)

Without GSM



RS-485 (Ring Topology)

RS-485 (Ring Topology)

\* Product images are only for representation, Actual image and size may differ

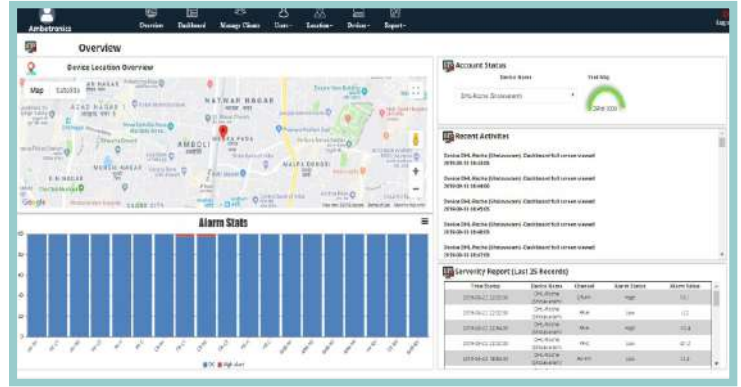
\* Kindly ask for detail Catalogue and specification of each product

# Browser Views

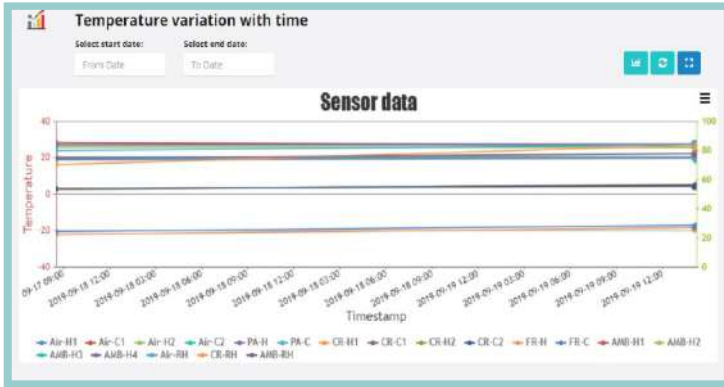
## DASHBOARD



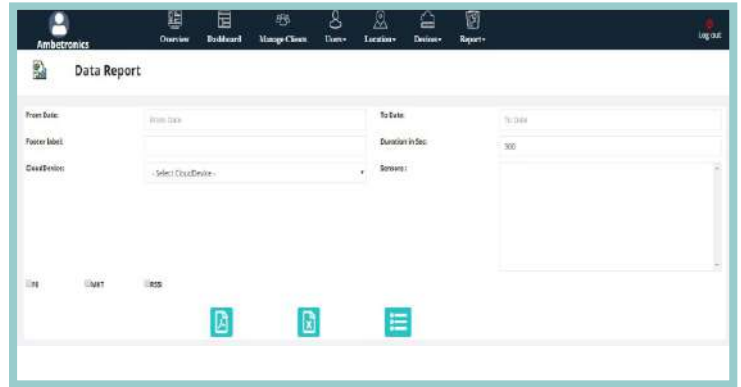
## OVER VIEW



## LIVE GRAPH



## REPORTS



## PC Software



USB to RS-485 Converter

Or

Via SMS

SMS Configuration



Manufactured by :

**AMBETRONICS ENGINEERS PVT. LTD.**

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