

BATTERY POWERED WIRELESS GAS DETECTOR

OVERVIEW:

WGD series detector is a complete stand alone system with integrated lithium-ion battery. It works on dual redundancy GSM connectivity, it can also interface with Methane/Combustible/Toxic Gas sensors. Features Highlighted for the device (WGD Series) such as battery powered, MQTT cloud connectivity and SMS alert notification.



CIMFR Tested & PESO
Approved Encl.

WGD4MSB-FLP (Flameproof)

Suitable for use in Hazardous Locations

Protection Class- IP-66 for Gas Gr. IIC PESO approved enclosure

FEATURES:

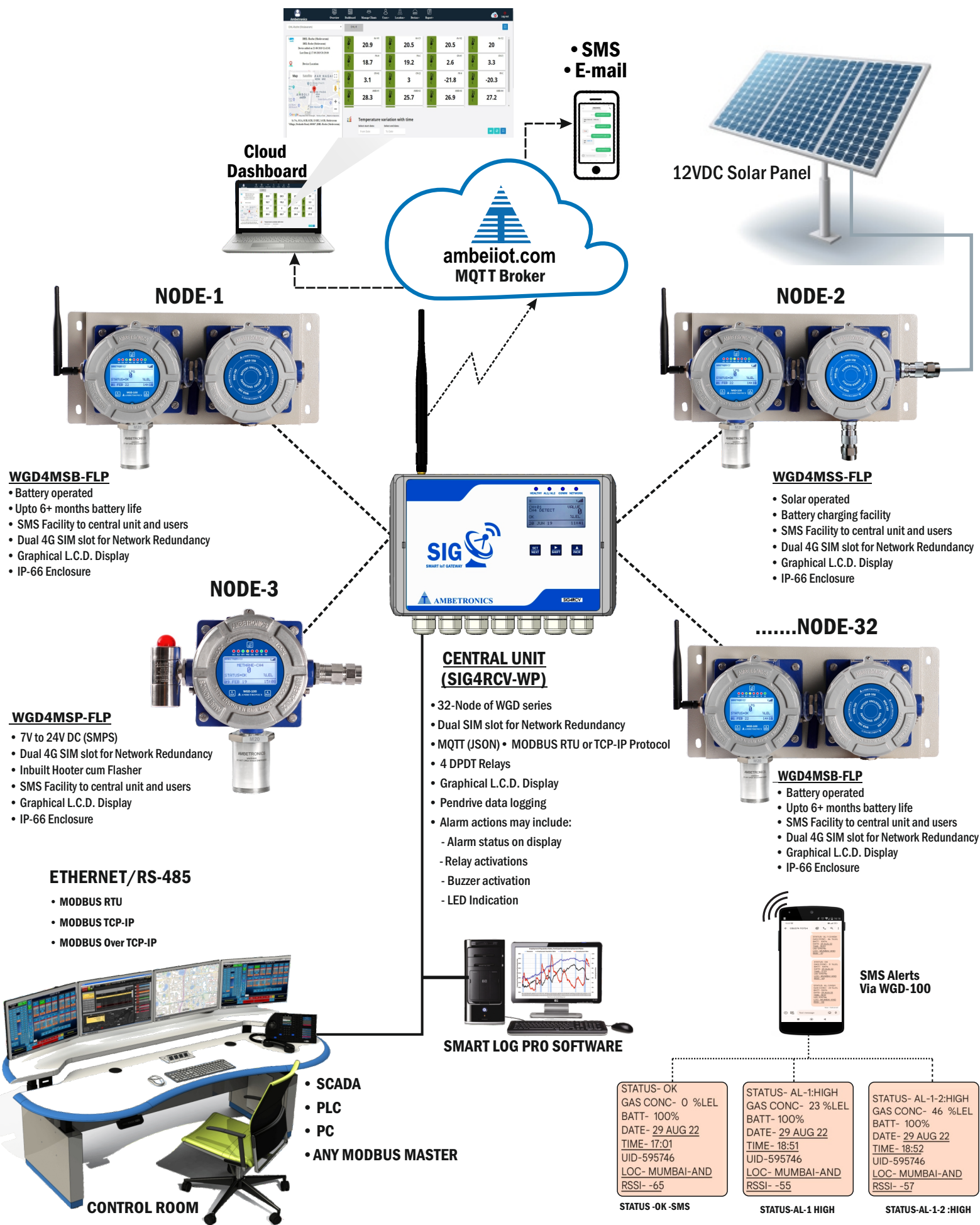
- Provides a fast & reliable response by using Electrochemical or NDIR Technology
- Optimized for detection of smallest leakage of gas with Continuous gas leakage monitoring
- Works on Internal Lithium battery with Approximate 6+ months battery life *(1 Transmission/ Day)
- 4G GSM Connectivity with Dual SIM card slots for Redundancy with Auto SIM switching in case of network failure
- Transmits Sensor Status, Gas Leak Information, Battery percentage, Date & Time, UID number, Location & RSSI
- Daily Status & Fault status SMS notification available (Fixed and Settable Specific time)
- Transmits Gas leak information, Battery status & alert status to 2 wireless central units (SIG) in encrypted format and SMS alerts to 5 mobile users
- User programmable sensor locations
- User Friendly Magnetic Wand & L.C.D. display for Man Machine Interface, programming and calibration
- Password Protected Function Menu
- Two configurable alarms with Low, High Logic for SMS alerts.
- L.E.D. Indications like Alarm, Healthy, Programming mode, Calibration Mode, Key Press, Data Transmission Indication
- Network Failsafe logging (15,000 Records)
- Wireless remote central unit for relay operations, data collection over MODBUS RTU/MODBUS TCP-IP and MQTT cloud connectivity.
- Suitable for using in remote & hazards locations
- GMT Supported Settable Timezone
- Settable country code for SIM card numbers supported.

APPLICATIONS:

- Refineries & Petrochemical plants including offshore drilling & plant shutdowns.
- Automotive Industrial/Paints Shops
- Chemical Processing Plant
- Acid Alkalis & Dyes mfg. Plants
- Bullet Yards / Storage Yard
- Waste water Treatment plants
- Leak detection in Gas Pipelines
- Process or Emission gas analysis
- Coal Mines
- Gas Metering Skid
- Gas Cylinder Bank
- Sewage Plants
- Fertilizers Plants
- Chlorination Plant
- Oil & Gas Industries
- Gas Pipeline Project
- Pulp & Paper Plants
- Gas Metering Station
- Burner / Furnace Areas
- Cold Storage
- Stack Monitoring
- Ambient Monitoring
- Heat Treatment Plants
- Chemical Storage Area
- Control Atmosphere
- Power & Industrial Plants

Note : * Battery life varies according to the transmission / day & alerts.

Comprehensive Solution for Wireless Gas Detection & Control



- SMS
- E-mail

WGD4MSB-FLP

- Battery operated
- Upto 6+ months battery life
- SMS Facility to central unit and users
- Dual 4G SIM slot for Network Redundancy
- Graphical L.C.D. Display
- IP-66 Enclosure

NODE-3

WGD4MSP-FLP

- 7V to 24V DC (SMPS)
- Dual 4G SIM slot for Network Redundancy
- Inbuilt Hooter cum Flasher
- SMS Facility to central unit and users
- Graphical L.C.D. Display
- IP-66 Enclosure

ETHERNET/RS-485

- MODBUS RTU
- MODBUS TCP-IP
- MODBUS Over TCP-IP

WGD4MSS-FLP

- Solar operated
- Battery charging facility
- SMS Facility to central unit and users
- Dual 4G SIM slot for Network Redundancy
- Graphical L.C.D. Display
- IP-66 Enclosure

CENTRAL UNIT (SIG4RCV-WP)

- 32-Node of WGD series
- Dual SIM slot for Network Redundancy
- MQTT (JSON) • MODBUS RTU or TCP-IP Protocol
- 4 DPDT Relays
- Graphical L.C.D. Display
- Pendrive data logging
- Alarm actions may include:
 - Alarm status on display
 - Relay activations
 - Buzzer activation
 - LED Indication

WGD4MSB-FLP

- Battery operated
- Upto 6+ months battery life
- SMS Facility to central unit and users
- Dual 4G SIM slot for Network Redundancy
- Graphical L.C.D. Display
- IP-66 Enclosure

STATUS- OK
 GAS CONC- 0 %LEL
 BATT- 100%
 DATE- 29 AUG 22
 TIME- 17:01
 UID-595746
 LOC- MUMBAI-AND
 RSSI- -65

STATUS -OK- SMS

STATUS- AL-1:HIGH
 GAS CONC- 23 %LEL
 BATT- 100%
 DATE- 29 AUG 22
 TIME- 18:51
 UID-595746
 LOC- MUMBAI-AND
 RSSI- -55

STATUS-AL-1 HIGH

STATUS- AL-1-2:HIGH
 GAS CONC- 46 %LEL
 BATT- 100%
 DATE- 29 AUG 22
 TIME- 18:52
 UID-595746
 LOC- MUMBAI-AND
 RSSI- -57

STATUS-AL-1-2 :HIGH

Technical Specifications for Wireless Gas Detector Series

POWER

Normal Mode : Up to 10mW during detection (WGD4MSB)
 During Data transmission : Up to 300mW (WGD4MSB)
 Power Supply : 7.4V Rechargeable, Li-ion battery

USER INTERFACE

LCD display : 128 x 64 pixel Graphical display
 Keys : 3 keys (SHIFT key, SET Key, INCR key)
 Settings : Use of Magnetic wand without opening enclosure cover
 LED's : L.E.D. Indications for device status/ Alarm status

ENVIRONMENTAL SPECIFICATIONS

Operating Temp. : -15°C to +45°C
 Storage Temp. : -10°C to +50°C
 Relative Humidity : 10% to 90% RH, Non- Condensing

SENSOR

Sensor Technology : Electrochemical / NDIR technology
 Response time : < 30 Secs

NETWORK

Modem : 4G GSM Connectivity
 : Dual SIM card slots for Redundancy with Auto SIM switching in case of network failure
 Antenna : Up to 15 dBi
 : Internal / External (in low network area)

ALERTS AND DATA CONNECTIVITY

Modes : SMS/MQTT/ TCP-IP*
 Alarms : 2 settable alarms, sensor fault, open, over.
 Healthy Alerts : Daily Multiple SMS notification of device status
 Details : Battery status, sensor fault and alarm status

HOUSING FOR DETECTOR

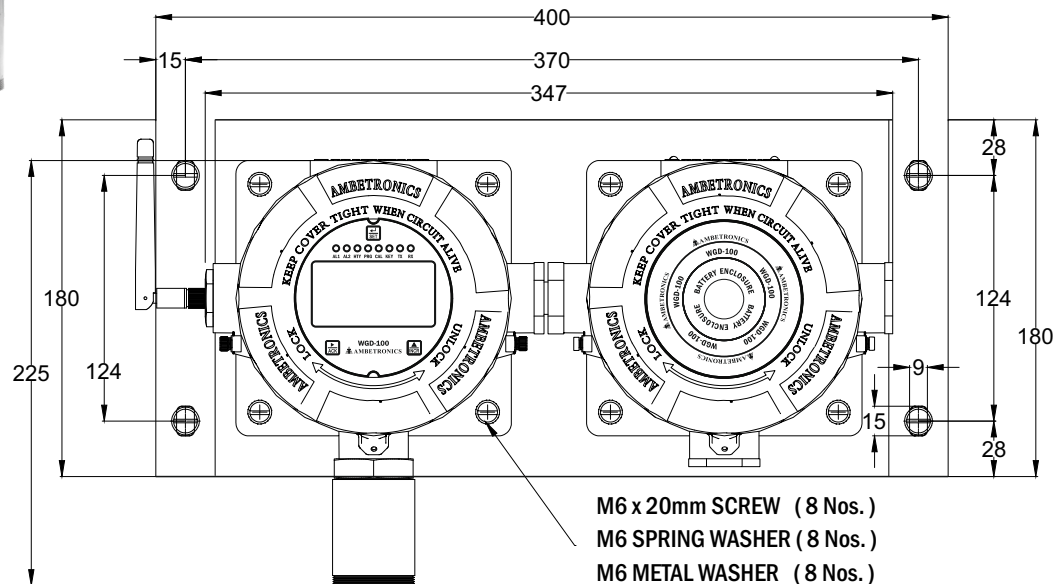
Protection class : IP-66 for GAS Gr. IIC PESO approved enclosure
 Cabinet Material : Cast Aluminium, LM-6
 Dimension : 247mm (W) x 213mm (H) x 120mm(D) - FLP
 Mounting : Wall Mounting
 Weight : Approx 4.9 kg - FLP



WGD4MSB-FLP

Battery operated
 Protection Class- IP-66 for
 Gas Gr. IIC PESO
 approved enclosure

Dimension Details



Note: *Marked points available only on request/ under development / in externally powered / Solar Devices.

Note: Above application may change as per indoor & outdoor requirements.

Manufactured by :

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