

GM-1100 SERIES

Single Gas Alert Monitor (Oxygen/Toxic/Combustible Gases)



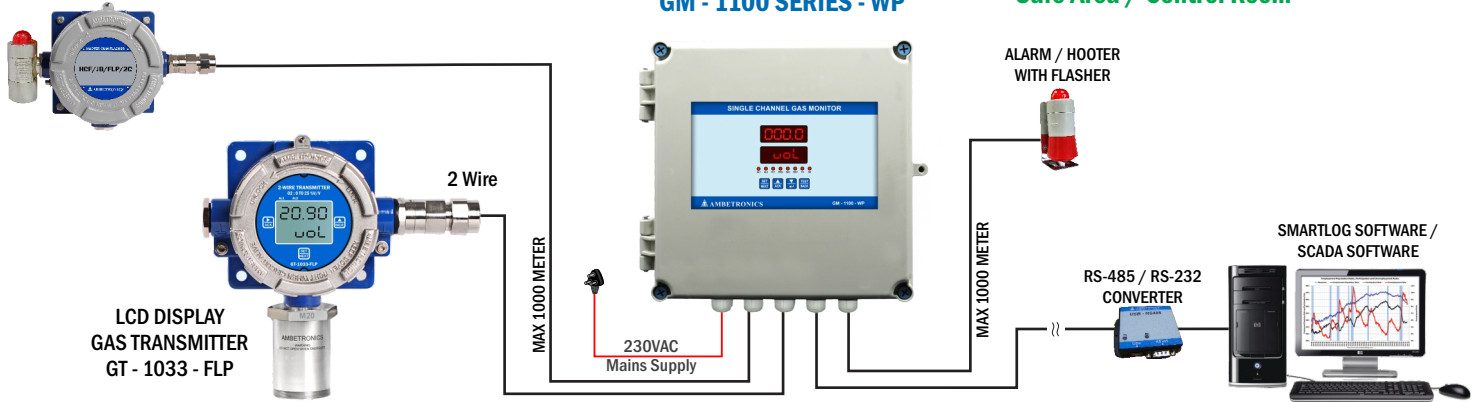
AMBETRONICS
AN ISO 9001:2015 CERTIFIED COMPANY

FLAMEPROOF HOOTER CUM FLASHER

Hazardous Area

GM - 1100 SERIES - WP

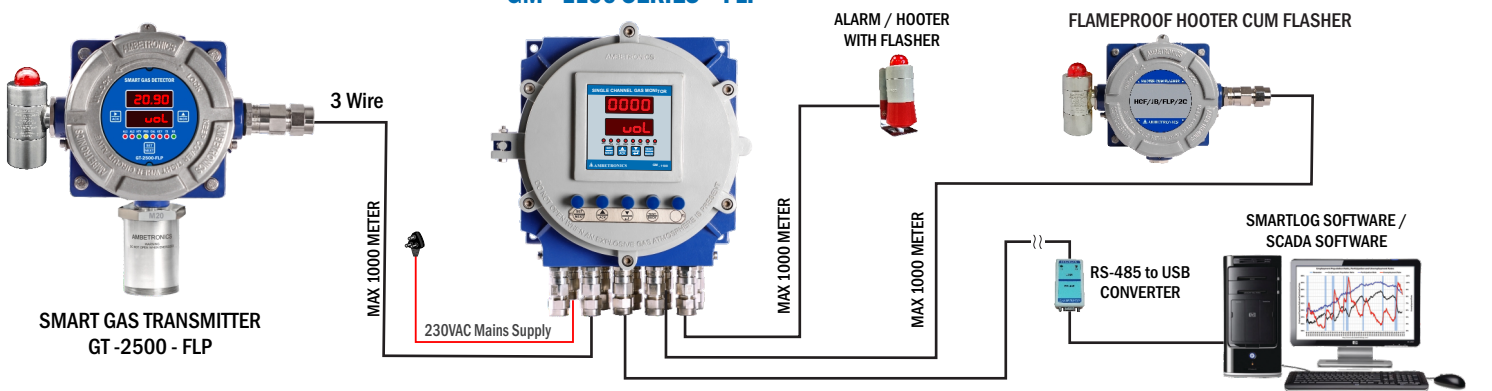
Safe Area / Control Room



Hazardous Area

GM - 1100 SERIES - FLP

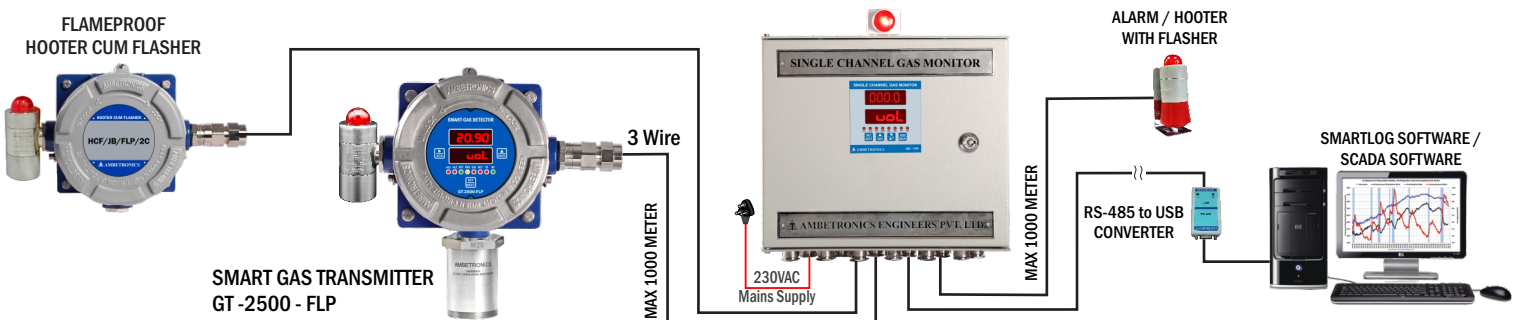
Hazardous Area / Control Room



Hazardous Area

GM - 1100 SERIES - MS

Safe Area / Control Room



Features

- Dual Display of Gas Concentration & Set Point / Unit of Gas
- Microcontroller Based Latest, Accurate, Reliable & High Performance Technology that Eliminates False Alarm
- Advance Warning and Alarm Output
- Audio Visual Alarm Indication
- Two Independent Alarm Relay Output
- Optional Programmable Linear 4 - 20mA O/P with Respect to Gas Concentration
- Optional RS-485 with Modbus RTU Protocol
- Easy One Man Calibration at Site
- Suitable In Hazardous Area CCOE, CMRI & IP - 65 Approved
- User Friendly Operation
- Password Protected Programming with Password changing facility

Applications

- Oil & Gas Industries
- Chemical & Petrochemical Plants
- Chemical Processing Plant
- Pulp & Paper Plants
- Acid Alkalizes & Dyes Mfg. Plants
- Offshore Drilling & Processing Platforms
- Refineries
- Stack Monitoring
- Chemical Storage Area
- Ambient Monitoring
- Sewage Plants
- Fertilizers Plants
- Power & Industrial Plants
- Gas Metering Station
- Bullet Yard / Storage Yard
- Coal Mine and Confined Area
- Gas Pipeline Project
- Gas Cylinder Bank
- Heat Treatment Plants
- Automotive Industries / Paint Shops
- Burner / Furnace Areas

MUST FOR HUMAN & INDUSTRIAL SAFETY

TECHNICAL SPECIFICATIONS

General

Input	: 4 to 20mA output from Oxygen / Toxic / Combustible Gase Transmitters
Range	: 0 to 9999 In units of P.P.M. OR % L.E.L. OR % VOL. programmable by user
Resolution	: 1 / 0.01 Resolution programmable by user
Accuracy	: $\pm 1\%$ of full scale value
Dual Display	: Upper : 4 Digit of 13mm(H) Red LED display for 'Gas Concentration' indication Lower : 4 Digit of 13 mm(H) Red LED display for Unit of Gas
LED Indication	: AL1 & AL2 for Relay, FLT for Fail-Safe Relay, PRG for Programming mode, INB for Service / Inhibit mode, TST for Test mode, TX for Transmitting signal, RX for Receiving signal
Set point	: 2 No, Independent set point for Alarm Relay-1 & Alarm Relay-2 with programmable latch & non-latch facility
Control Action	: LO / HI, HI / LO, LO / Very LO, HI / Very HI, Programmable by user
Hysteresis	: 0 to 100 counts, Individual setting for Alarm Relay-1 & Alarm Relay-2, Programmable by user
Time Delay	: Independent Programmable 0 to 9999 sec for Alarm Relay-1 & Alarm Relay-2
Relay Output	: Alarm Relay-1 operates for set point 1, Alarm Relay-2 operates for set point
Relay Contact type	: 3 No, 1 NO-C- NC, 230 VAC/5A Relay contact for RL1, RL2 & Fail-Safe Relay
Setting	: Setting by 4 keys on front panel i.e. 'SET / NEXT', 'UP', 'DOWN' & 'TEST / BACK'
Monitoring	: i) By display : Sensor break/ open shows 'oPen', under range shows 'Undr' & over range shows 'ouEr' ii) By Retransmission current : Up scale current : 21mA, Down scale current : 3mA, Programmable

Electrical

Power Supply	: 23VAC $\pm 10\%$ or 110 VAC $\pm 10\%$ or 24VDC
Cable	: 1.5 sq. mm 3 Core OR 2 Core, Flexible OR Armoured shielded cable from Gas transmitter

Optional

- Isolated RS-485 Serial port with MODBUS RTU protocol output
- SMARTLOG / SCADA SOFTWARE for online graph & data report for safety Audit
- Flame Proof or Non Flame Proof Industrial Hooter, Hooter cum Flasher, Chart recorder, Cables, PC software, Gas Transmitter, 24VDC power supply, Gas calibration kit
- Optional programmable linear 4-20mA O/P with respect to Gas concentration range

Environmental

Operating Temp.	: 0 to 50°C $\pm 5\%$,
Relative Humidity	: Below 95% non Condensing

Weatherproof Housing

Protection Class	: IP-65
Cabinet Material	: ABS Plastic
Cable Entry	: Thermoplastic cable gland (IP 65) with clamping range of 2.5 to 6.5 mm
Dimension	: 317 mm (H) x 365 mm (W) x 160 mm (D)
Mounting	: Wall Mounting / Stand Mounting
Weight	: Approx 2.5 Kg

Flameproof Housing

Degree of Protection Class	: IP-66
• CIMFR CERTIFICATE NO.	: CIMFR/TC/P/1923 Dt. : 26/08/2019
• PESO CERTIFICATE NO.	: P468728/1 Dt. : 21/02/2020
Housing Material	: cast Aluminum Lm6 Alloy Enclosure
Cable Entry	: Flameproof, Weatherproof IP66 Double compression cable gland (Ex d) Model No. : CG/FLP/2C M20 x 1.5 (P)
• CIMFR CERTIFICATE NO.	: CIMFR/TC/P/1313 Dt. : 19/09/2018
• PESO CERTIFICATE NO.	: P431645/2 Dt. : 19/11/2019
Dimension	: 357 mm (H) x 316 mm (W) x 182 mm (D)
Mounting	: Wall Mounting / Stand Mounting / Pipe Mounting
Weight	: Approx 12 Kg

MS Panel Housing Details :

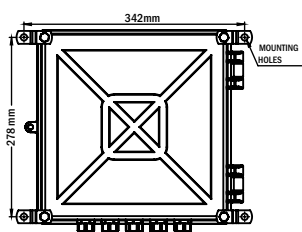
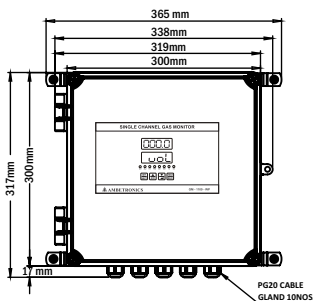
Protection Class	: IP-50
Cabinet Material	: Metal sheet Siemens Grey colour
Cable Entry	: Single Compression Gland
Dimension	: 300 mm (H) x 320 mm (W) x 105 mm (D)(without gland)
Mounting	: Wall Mounting / Stand Mounting
Weight	: Approx 6 Kg

LAYOUT DESCRIPTION

WEATHERPROOF ENCLOSURE

Front View

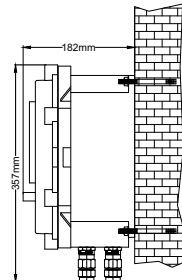
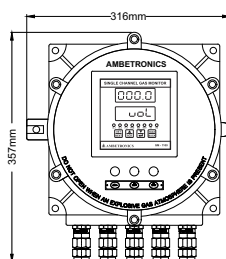
Back View



FLAMEPROOF ENCLOSURE

Front View

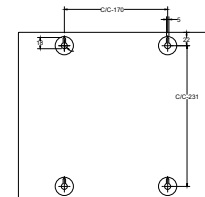
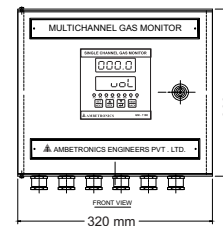
Back View



MS PANEL

Front View

Back View



Manufactured by :



CIMFR



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