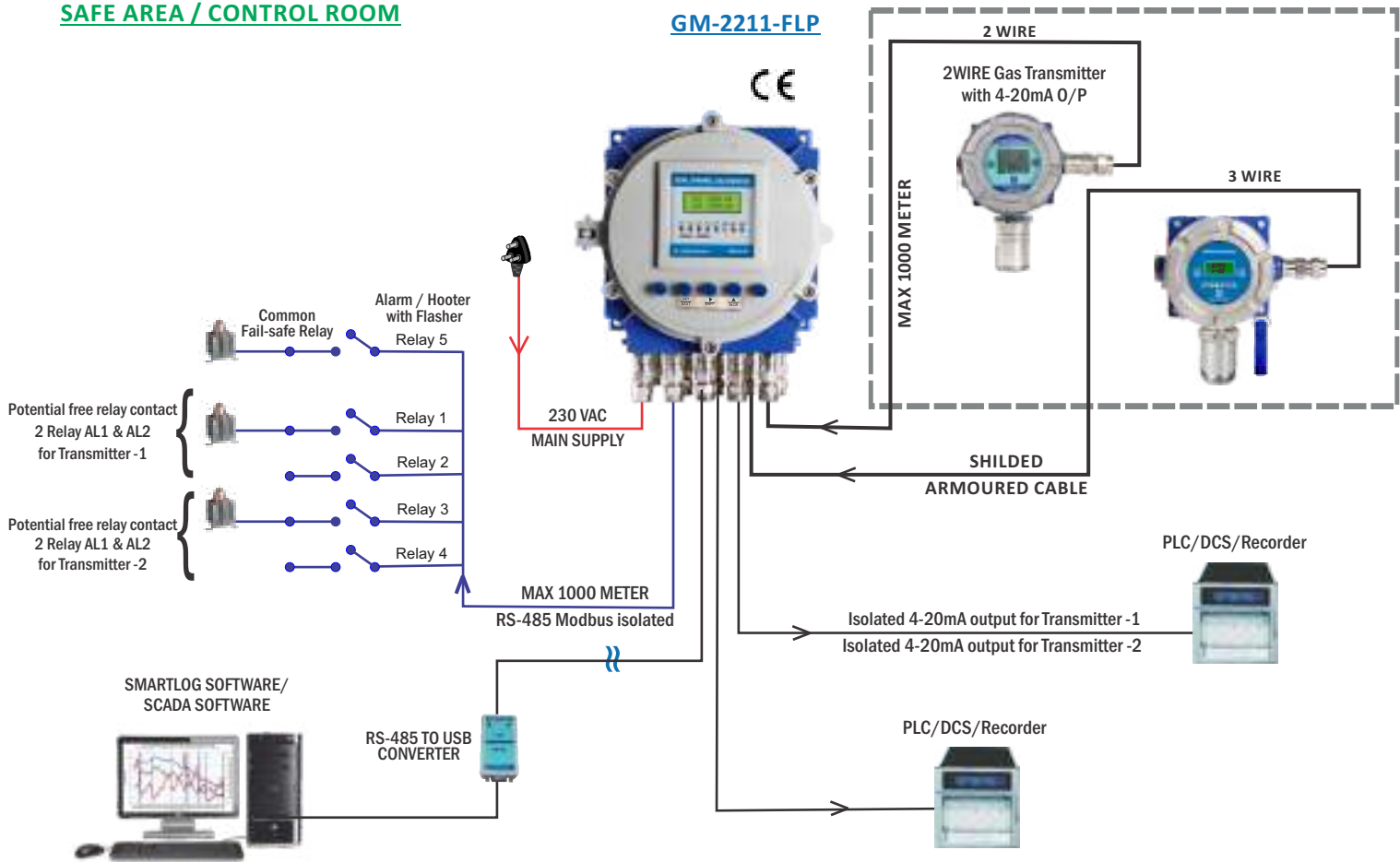


## DUAL CHANNEL GAS MONITOR

### SAFE AREA / CONTROL ROOM

### GM-2211-FLP



### Features

- Display of Gas Concentration along with its Unit & 'Gas Name' for both Channels.
- Microcontroller Based Latest, Accurate, Reliable & High Performance Technology that Eliminates False Alarm.
- Advance Warning & Alarm Output.
- Audio Visual Alarm Indication
- Two Independent Alarm Relay Output.
- Optional programmable Voltage & Current Output with Configurable Range.
- Easy Handling & programming with 3 keys.
- Can be programmed using Remote Control from 10 meter in line of site distance.
- Password protected programming menu.
- Optional Isolated RS - 485 Communication Port with Modbus RTU Protocol.

### Approval & Compliance

- Approvals : • Compliance for Flameproof Certified to Ex d IIC T6 Gb, IP66
- Standard Compliance : • IS/IEC 60079-0 : 2011
  - IS/IEC 60079-1 : 2014 Ex d IIC T6 Gb (Flameproof Protection)
  - IS/IEC 60079 : 2001 IP66 AND IP68 (Ingress Protection)
- Compliance with the IEC 60945 Standard for Marine application
- CIMFR CERTIFICATE NO.: CIMFR/TC/P/1923 Dt. : 26/08/2019
- PESO CERTIFICATE NO.: P468728/1 Dt.: 21/02/2020

### Applications

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

# MUST FOR HUMAN AND INDUSTRIAL SAFETY

# TECHNICAL SPECIFICATIONS

## General

Input	: 2 Channel x 4 to 20mA output from Oxygen / Toxic / Combustible Gas Transmitter.
Range	: 0 to 9999 in unit PPM or % LEL or %, V/V Programmable by user.
Display	: 16 x 2 Alphanumeric LCD with auto Backlit . 8 LEDs to indicate status of instrument
Control Action	: i) Two independent Alarm Set Points with Latch & Non-Latch facility for each Channel independently. ii) User selectable Hysteresis & Logic option. iii) Common Fail Safe Relay for both the channels
Setting	: By 3 Keys on front panel for WP/FLP Model : By using Remote Control (Optional)

## Performance

Measurement Accuracy	: ± 0.25% of full-scale for Gas Monitor
Response Time	: 500m Sec typical
Start-up Time	: Approx 30 Seconds.

## Electrical

Power Supply	: 90 to 270 VAC; ±20%, 50Hz, Typically 230VAC
Power Consumption	: Less than 5 Watt.
Connection	: 3 Wires (1.5 mm <sup>2</sup> ) Flexible or Armoured Shielded Cable.

## Environmental

Operating Temperature	: -15 to +55°C
Humidity	: Less than 95% Non-Condensing. EMI-EMC compatibility

## Output Signal

Standard	: It has five No. relays (One for Failsafe & Two no. for Alarm Indication for each Channel) of rating 120VAC / 2A, 24VDC/2A.
Optional	: Isolated 0-20mA / 4-20mA / 0-5VDC / 0-10VDC Output selectable proportional to Gas Concentration with programmable Range.
Optional	: Isolated RS - 485 Communication Port with Modbus RTU Protocol.

## Error Monitoring

- i) During Sensor break / open, Display shows 'Sensor Open' & Output Signal gets as per the Up scale / Down scale selection.
- ii) During 'Under Range', Display shows 'Under Range' & Output Signal gets as per the Up scale / Down scale selection.
- iii) During 'Over Range', Display shows 'Over Range' & Output Signal gets as per the Up scale / Down scale selection.
- iv) Down Scale Output Signal= 0mA / 0VDC.
- v) Up Scale Output Signal= 21mA / 5.5VDC / 10.5VDC.

## Accessories (Optional)

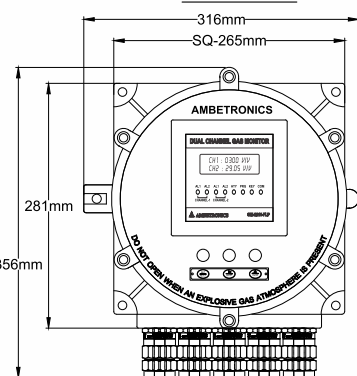
- CE certified 24 VDC Power supply.
- Canopy & Mounting stand.
- Gas Calibration Kit (0.5,1, 3,10)Liter.
- Hooter Cum Flasher.
- Toxic / Combustible Gas Transmitter
- Gas Sampling & Conditioning System.
- RS-485 to USB OR RS-232 convertor
- PC Based SCADA Software, Modem

## Flameproof Housing

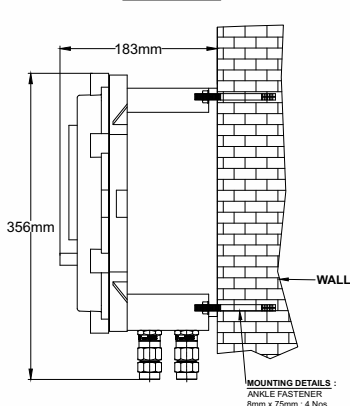
Degree of Protection Class	: IP-66
• CIMFR CERTIFICATE NO.	: CIMFR/TC/P/1923 Dt. : 26/08/2019
• PESO CERTIFICATE NO.	: P468728/1 Dt. : 21/02/2020
Housing Material	: cast Aluminum Lm6 Alloy or cast Iron (C.I.) Enclosure
Cable Entry	: Flameproof, Weatherproof IP66 Double compression cable gland (Ex d) Model No. : CG/FLP/2C M20 x 1.5 (P) & M25 x 1.5(P), ½" NPT & ¾" NPT
• CIMFR CERTIFICATE NO.	: CIMFR/TC/P/1313 Dt. : 19/09/2018
• PESO CERTIFICATE NO.	: P431645/2 Dt. : 19/11/2019
Dimension	: 356 mm (H) x 316 mm (W) x 183 mm (D)
Mounting	: Wall Mounting / Stand Mounting
Weight	: Approx 12 Kg

## DIMENSION

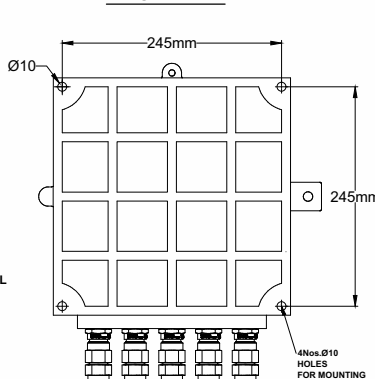
FRONT VIEW



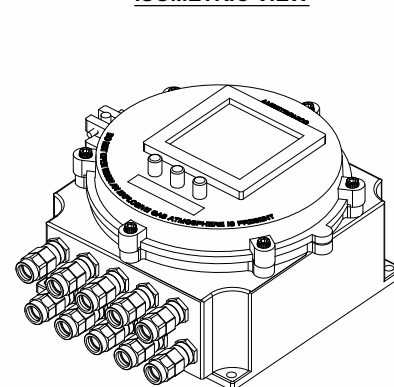
SIDE VIEW



BACK VIEW



ISOMETRIC VIEW



## ORDERING INFORMATION

GM	—	<b>A</b>	—	<b>B</b>	—	<b>C</b>	—	<b>D</b>	—	<b>E</b>	—	<b>F</b>	—	<b>G</b>
		<b>A) Model No.</b> 1) 2211		<b>B) Enclosure</b> FLP (Flameproof)		<b>C) Retransmission Output</b> 1) None 2) 2 x 4-20mA		<b>D) Relay Output</b> 1) None 2) 5 Relays		<b>E) Communication Port</b> 1) None 2) RS-485 Serial Port isolated		<b>F) Programming Interface</b> 1) None		<b>G) Power Supply</b> 1) 230VAC

\* Before placing order please Refer the above ordering information or Contact us for assistance.

Manufactured by :

**AMBETRONICS ENGINEERS PVT. LTD.**

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