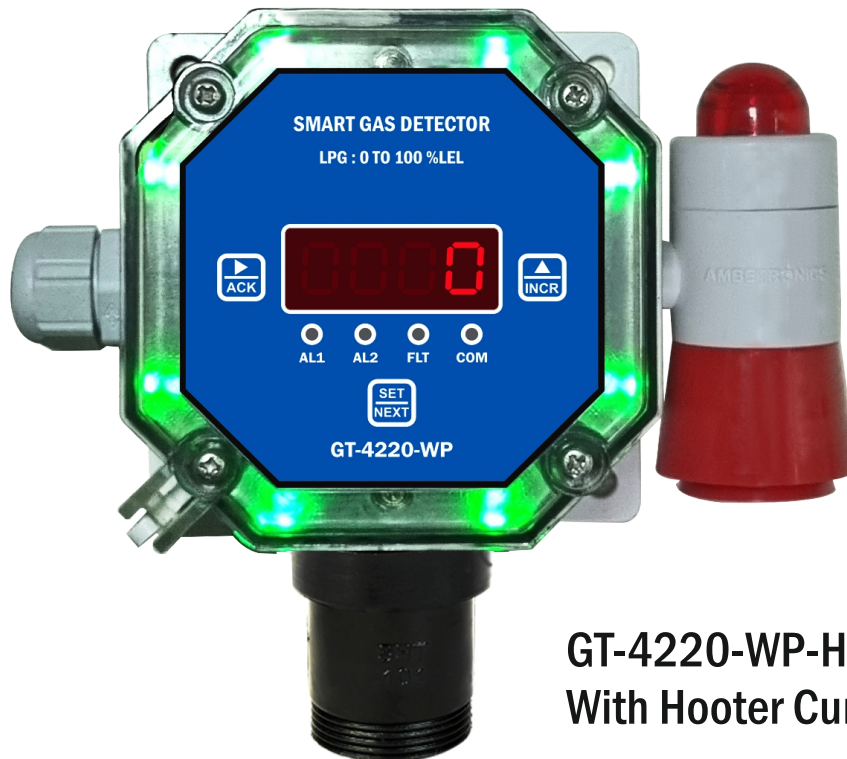# GT-4220-WP-HCF

LPG/PNG/CNG Gas Leak Detector

AMBETRONICS
AN ISO 9001:2015 CERTIFIED COMPANY

GT-4220-WP-HCF
With Hooter Cum Flasher

Features

- Self test facility, Built in temperature sensor.
- PESO Certified Enclosure, Hooter Cum Flasher & Cable gland
- Provides a fast & reliable response by using Catalytic / Pellistor / Semiconductor technology for detecting leak of LPG/PNG/ CNG/ LNG/ Natural Gas/ Flammable Gas.
- Highly resistant sensor to poisoning & etching.
- Isolated RS-485 communication port with MODBUS RTU protocol.
- Non-intrusive programming with Magnetic Wand .
- Password protected programming menu.
- Optimised for detection of smallest Gas leaks with optional Integrated Buzzer and Flasher as optional.
- 2 numbers Alarm Relay Contacts configurable for Warm, Alarm & Fault.
- Inbuilt Ambient temperature detection.
- In built Temperature detector link to alarms.

Applications

- Gas Metering Skid
- CNG station
- Fertilizers Plants
- Oil & Gas Industries
- Ambient Monitoring
- Gas Pipeline Project Refineries
- Gas Metering Station
- Gas Refilling station
- BMS
- Commercial Kitchen
- Gas manifold area

- Chemical & Petrochemical Plants
- Automotive Industrial / Paints Shops
- LPG Gas Cylinder Bank
- Sewage Plants
- Burner / Furnace Areas
- Heat Treatment Plants
- Chemical Storage Area
- LPG Bullet Yards
- Chemical Processing Plant
- Offshore Drilling & Processing Platform
- Power & Industrial Plants

MUST FOR HUMAN & INDUSTRIAL SAFETY

TECHNICAL SPECIFICATIONS

General :

Gas Sensor	:	Catalytic / Pellistor / Semiconductor
Sensor Holder	:	SS-316
Temperature Sensor	:	For Ambient temperature measurement
Detection Method	:	Continuous Diffusion
Range & Resolution	:	As specified in table
Display & LEDs	:	4 Digit Seven segment LED Display. 4, L.E.D.'s for Warn (Warning), Alarm, Fault, Communication to indicate status of instrument.
Set Point	:	i) Two independent Alarm set points for AL1 & AL2 with LED indication
		ii) User selectable Hysteresis and Logic options for Alarm.
		iii) Ambient Temperature detection set point can be set between -20.0°C to 100°C
Setting	:	Non-intrusive programming with Magnetic wand without opening enclosure cover

Accuracy :

Catalytic / Pellistor	:	± 2 % full scale
Semiconductor	:	± 5 % of full scale, Only for Gas Detection

Performance :

Response time	:	Less than 5 seconds
Start-up Time	:	Less than 30 seconds

Electrical :

Supply Voltage	:	18 to 36 VDC, Typically 24VDC
Power Consumption	:	Less than 2 Watts
Connector	:	1) 4 wires (1.5mm^2) Flexible or Armoured shielded cable for 24 VDC input & RS-485 Output
		2) 4 wires (1.5mm^2) Flexible or Armoured shielded cable for Relay Output

Environmental :

Operating Temperature	:	-20 to +60°C
Storage Temperature	:	-30 to +70°C
Humidity	:	Less than 95% Non-Condensing.

Output Signal :

Output 1	:	Two SPST NO/C/NC relays contact rating 5A/250VAC, 5A/30VDC
Output 2	:	Isolated RS-485 communication with MODBUS RTU protocol.
Output 3	:	SS 316 PESO Certified Hooter Cum Flasher 90dB with RED light flashing.

Error Monitoring :

1) During Sensor Break / Open the display shows 'Sensor Open/ Over Range' and MODBUS Hex Value/Decimal Value is Ox7FFF /32767.
2) Ambient Temperature exceeds > set point, FLT LED blinks and Alarm relay will be activated.

Accessories (Optional) :

1) CE certified 24 VDC Power supply   2) Canopy & Mounting stand
3) Flameproof, Weatherproof IP66 Hooter Cum Flasher - Model No.: HCF/FLP/2C
   • CIMFR CERTIFICATE NO. : IN/CIMFR/TR19/4378 Dt. : 13/12/2019
   • PESO CERTIFICATE NO. : P468728/3   Dt. : 21/02/2020

Common Deliverable

1) Test Calibration Certificate	5) Protection cap
2) Reference Calibration Gas Certificate	6) Calibration Cap
3) 'Operational / Instrument' User Manual	7) Magnetic Wand
4) Standard Mounting Hardware	

Weatherproof Housing

Protection class	:	IP
Cabinet material	:	Polycarbonate ,Grey Colour
Cable entry	:	Thermoplastic cable gland (IP-68)
Dimension	:	170.6 mm(H) with sensor holder X 175 mm(W) with cable gland & Hooter cum Flasher X 70 mm(D)
Mounting	:	Wall Mounting/ Stand Mounting
Weight	:	Approximately 380 grams.

LIST OF GASES WITH RANGE AND RESOLUTION AND ALARM SET POINT
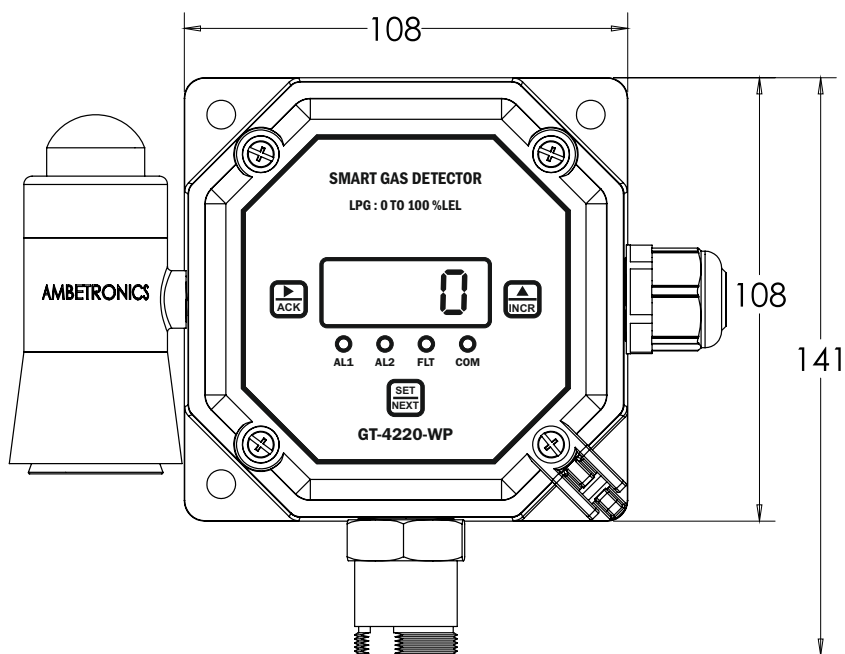
CATALYTIC / PELLISTOR SENSOR TECHNOLOGY

GASES	RANGE	UNIT	RES.	AL1	AL2
Methane (CH4)	100	% LEL	1	20% LEL	40% LEL
CNG	100	% LEL	1	20% LEL	40% LEL
LNG	100	% LEL	1	20% LEL	40% LEL
PNG	100	% LEL	1	20% LEL	40% LEL
Natural Gas	100	% LEL	1	20% LEL	40% LEL
Flammable Gas	100	% LEL	1	20% LEL	40% LEL
LPG (C3H8)	100	% LEL	1	20% LEL	40% LEL

SEMICONDUCTOR SENSOR TECHNOLOGY

GASES	RANGE	UNIT	RES.	AL1	AL2
METHANE (CH4)	20	%LEL	1	10% LEL	15% LEL
CNG	20	%LEL	1	10% LEL	15% LEL
LNG	20	%LEL	1	10% LEL	15% LEL
PNG	20	%LEL	1	10% LEL	15% LEL
Natural Gas	20	%LEL	1	10% LEL	15% LEL
Flammable gas	20	%LEL	1	10% LEL	15% LEL
LPG (C3H8)	50	%LEL	1	10%LEL	20%LEL

FRONT VIEW

108

SMART GAS DETECTOR
LPG : 0 TO 100 %LEL

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◄ ACK

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▲ INCR

AL1 AL2 FLT COM

SET NEXT

GT-4220-WP

108

141

SIDE VIEW

70

30

54

108

Ø 25

BACK VIEW

90

90

54

33
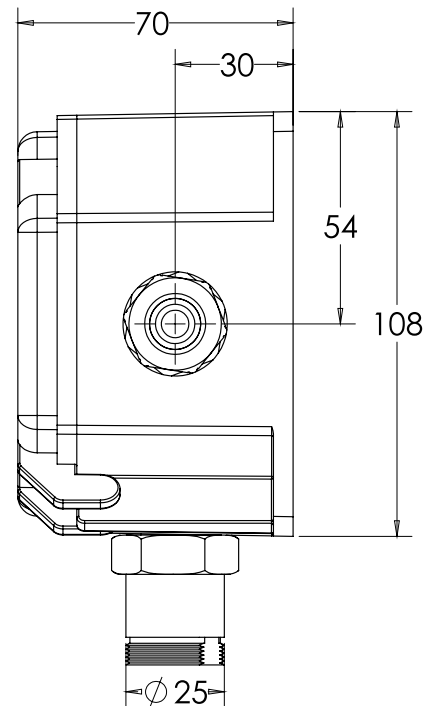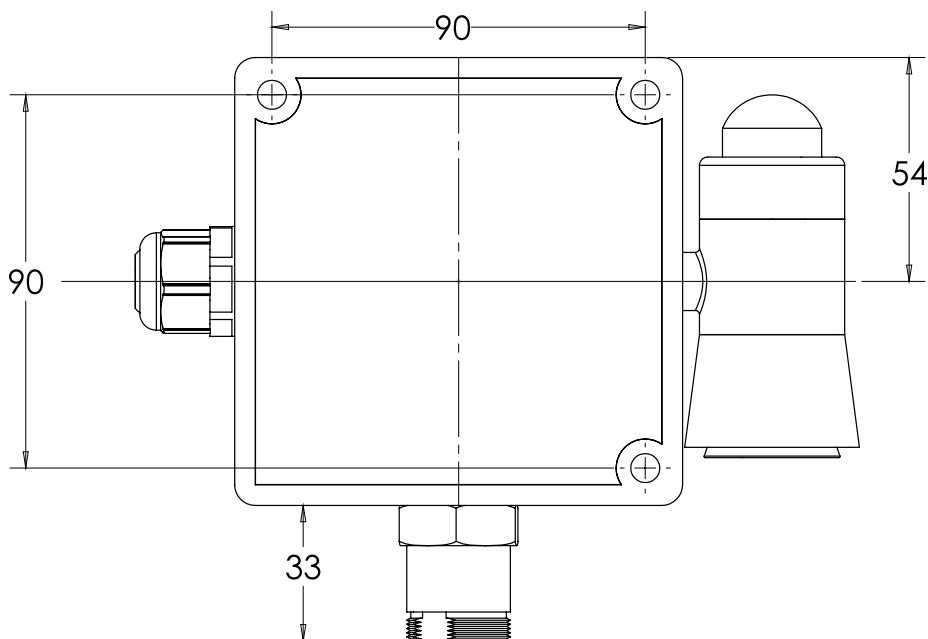
GT-4220-WP — [A] — [B] — [C]

A) GAS NUMBER, RANGE & RESOLUTION
Select name and range of the

B) POWER SUPPLY
1) 24V DC
2) 230 VAC (with AC Adapter)

C) ACCESSORIES
1) Ambetronics - Hooter Cum Flasher 24VDC operated
2) Relay Module (REL-1200) for 2 numbers ADD on External Relays
3) None

* Before placing the order please refer the above ordering information or Contact below address for assistance.

Manufactured by :

CIMFR | ISI | PESO | CE | UL | Ex | IECEx | MSME (MICRO, SMALL & MEDIUM ENTERPRISES) | NSIC | GeM Government e Marketplace | MAKE IN INDIA

🔺 **AMBETRONICS ENGINEERS PVT. LTD.**
17-B, 16, 14A, Tarun Industrial Estate, New Nagardas Road, Mogra Pada, Andheri (E.) Mumbai - 400 069, India.

📞 +91-22-69623389
+91-22-61673021/22

📱 +91-93207 37646
+91-91674 18106

@ sales8@ambetronics.com
sales11@ambetronics.com

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