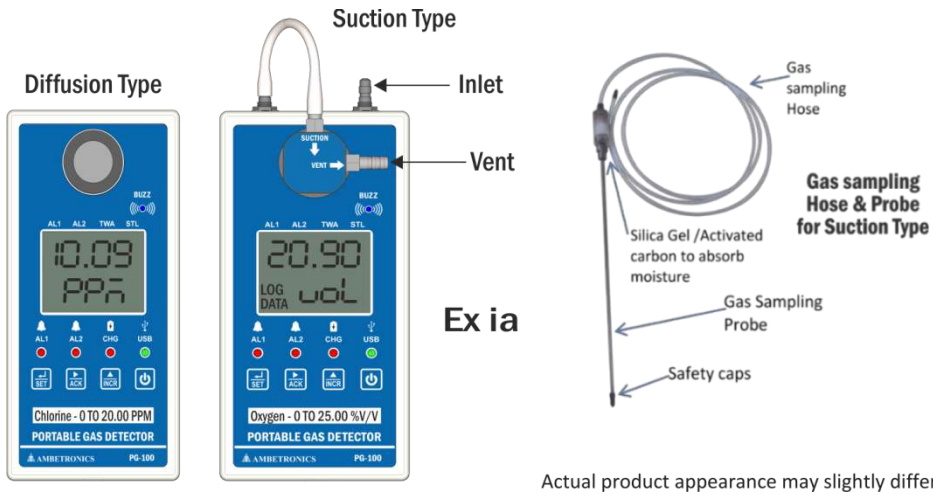


**SINGLE CHANNEL PORTABLE GAS DETECTOR**



Actual product appearance may slightly differ



**CERTIFICATE & APPROVALS**

**INTRINSICALLY SAFE**

CIMFR TR NO.: CIMFR/TC/P/1642X  
 BIS MARK LICENCE NO: 7800047118  
 PESO CERT. NO: P431645/1  
 Ex ia IIC T6 Ga: Suitable for Hazardous Gas Atmospheres Zone 1 and Zone 2, Including Gas Groups IIA, IIB & IIC  
 IS/IEC 60079-0: 2011  
 IS/IEC 60079-11: 2006  
 IS/IEC 60529: 2001 (IP-20)

**APPLICATIONS**

- Emergency response to gas leak
- Incoming Cylinder inspection
- Equipment maintenance
- Pre entry check quality control process
- Waste water treatment plants
- Pulp & Paper Industry
- Steel mills
- Ambient monitoring
- Personal Monitoring
- Refineries & Petrochemical plant including Offshore drilling and plant shutdowns

**FEATURES**

- Plug-in Sensor provides a full year of warranted protection against hazardous gases
- The Portable Detector detects smallest gas leak on service line and joints
- Easy handling and programming with 3 keys and one key for power ON/OFF
- Easy software calibration by using front keys
- Digital display of Gas Concentration in %V/V or %LEL or PPM on LCD with backlight
- Password protected function menu
- LOW, HIGH, TWA & STEL configurable alarms with buzzer, vibrator alerts & LED indications.
- “Calibration due” indication and alert
- “Sensor Open/Over” Range Indication.
- Optional Data logging & Downloading facility. Downloaded data available in ASCII format (Max : 50,000 records )
- Battery status indication on the LCD with battery charging LED indication & LOW BAT indication with Buzzer Beep sound
- Power supply with rechargeable battery
- Small, compact and light-weight

**TECHNICAL SPECIFICATIONS**

**GENERAL**

Sensors : Electrochemical/Catalytic / Pellistor /NDIR / PID  
 Range/Resolution : As specified in the table  
 Detection : Diffusion / Suction  
 Method  
 Response Time : Less than 10 Sec  
 Parameter Setting : Setting by 3 keys i.e. (SET, SHIFT, INCR)  
 Alarm Set Point : Two independent set points, AL1 & AL2 with LED indication  
 Alarm Violations : Indicated by Integrated Vibrator & Buzzer (85dB Audible from 1 feet)  
 Display : 2- line LCD with Backlight

**ACCURACY**

Sr. No	SENSOR TECHNOLOGY	CALIBRATION ACCURACY
1	Electrochemical	± 2 % FS
2	Catalytic / Pellistor	± 2 % FS
3	NDIR - CH4	± 0.2 % V/V OR ±5% of applied gas whichever is max
4	NDIR-CO2	±10% of applied gas
5	PID Range	0 TO 5000 PPM ±10% of applied gas
		0 TO 1000 PPM ±5% of applied gas
		0 TO 50 PPM ±3% of applied gas

**ENVIRONMENTAL**

Operating Temp : -10 °C to +55 °C  
 Storage Temp : -10 °C to +60 °C  
 Humidity : Below 95% RH, Non condensing

**ELECTRICAL : 3.7V LI-PO RECHARGEABLE BATTERY**

**BACK UP DETAILS**

Sr, No	DETECTOR TYPE	W/O VIOLATION	WITH VIOLATION
1	Toxic/ O <sub>2</sub> / N <sub>2</sub>	10 DAYS	24 HOURS
2	PID/NDIR(CO <sub>2</sub> /CH <sub>4</sub> )	2 DAYS	18 HOURS
3	Catalytic / Pellistor	8 HOURS	3 HOURS

**COMMON DELIVERABLES**

- Test Calibration Certificate
- Reference calibration gas certificate
- User Manual
- AC Charger Adaptor
- Protection cover
- USB cable (only for Data Logging Option)
- Calibration Cap for Diffusion type

**SUCTION ACCESSORIES**

- Calibration & Suction Cap
- Gas Sampling Hose : PVC
- Gas sensing Probe : Std. size 5", Above 5" available on request

**OPTIONAL DATA LOGGING**

Logging Capacity : 50,000 records with data available in ASCII format  
 Data Download : In PC Through USB interface using Terminal software

**DIMENSION & WEIGHT**

Material	: ABS Plastic
Size	
Diffusion Type	: 140 mm(H) x 70 mm(W) x 40 mm(D)
Suction Type	: 140 mm(H) x 70 mm(W) x 50 mm(D)
Weight	
Diffusion Type	: 225 Grams
Suction Type	: 260 Grams

## GAS WITH RANGE & RESOLUTION

ELECTROCHEMICAL SENSOR TECHNOLOGY					CATALYTIC/ PELLISTOR SENSOR TECHNOLOGY				
SR. NO	GASES	RANGE	UNIT	RES.	COMBUSTIBLE GASES				
O1	Oxygen (O <sub>2</sub> )	25	% V/V	0.01	SR.NO	GASES	RANGE	UNIT	RES.
O2	Oxygen (O <sub>2</sub> )	100	% V/V	0.1	C1	Acetone (CH <sub>3</sub> ) <sub>2</sub> CO	100	%LEL	1
NT1	Nitrogen (N <sub>2</sub> )	100	% V/V	0.1	C2	Acetylene (C <sub>2</sub> H <sub>2</sub> )	100	%LEL	1
<b>TOXIC GASES</b>					C3	Ammonia (NH <sub>3</sub> )	100	%LEL	1
T1	Ammonia (NH <sub>3</sub> )	100	PPM	1	C4	Butane/n-Butane (C <sub>4</sub> H <sub>10</sub> )	100	%LEL	1
T2	Ammonia (NH <sub>3</sub> )	1000	PPM	1	C5	Carbon Monoxide(CO)	100	%LEL	1
T3	Bromine (Br <sub>2</sub> )	10	PPM	0.01	C6	Ethanol (C <sub>2</sub> H <sub>5</sub> OH)	100	%LEL	1
T4	Carbon Monoxide (CO)	1000	PPM	1	C7	Ethyl Acetate (C <sub>4</sub> H <sub>8</sub> O <sub>2</sub> )	100	%LEL	1
T5	Carbon Monoxide (CO)	2000	PPM	1	C8	Ethylene (C <sub>2</sub> H <sub>4</sub> )	100	%LEL	1
T6	Chlorine (CL <sub>2</sub> )	10	PPM	0.01	C9	Hexane/n-Hexane (C <sub>6</sub> H <sub>14</sub> )	100	%LEL	1
T8	Hydrogen (H <sub>2</sub> )	2000	PPM	1	C10	Hydrogen (H <sub>2</sub> )	100	%LEL	1
T9	Hydrogen Bromide (HB <sub>r</sub> )	100	PPM	1	C11	Isopropanol (CH <sub>3</sub> C <sub>2</sub> H <sub>4</sub> OH)	100	%LEL	1
T10	Hydrogen Chloride (HCL)	100	PPM	1	C12	Methane (CH <sub>4</sub> )/HC	100	%LEL	1
T11	Hydrogen Cyanide(HCN)	100	PPM	1	C13	Methyl Ethyl Ketone (C <sub>4</sub> H <sub>8</sub> O)	100	%LEL	1
T12	Hydrogen Fluoride (HF)	10	PPM	0.01	C14	Methanol (CH <sub>3</sub> OH)	100	%LEL	1
T13	Hydrogen Fluoride (HF)	100	PPM	1	C15	N-Heptane (C <sub>7</sub> H <sub>16</sub> )	100	%LEL	1
T14	Hydrogen Sulfide (H <sub>2</sub> S)	100	PPM	1	C16	N-Pentane (C <sub>5</sub> H <sub>12</sub> )	100	%LEL	1
T15	Ozone (O <sub>3</sub> )	20	PPM	0.01	C17	Pentane/n-Pentane (C <sub>5</sub> H <sub>12</sub> )	100	%LEL	1
T16	Phosphine (PH <sub>3</sub> )	10	PPM	0.01	C18	Propane/n-Propane / LPG (C <sub>3</sub> H <sub>8</sub> )	100	%LEL	1
T17	Nitrogen Dioxide (NO <sub>2</sub> )	20	PPM	0.01	C19	Toluene (C <sub>7</sub> H <sub>8</sub> )	100	%LEL	1
T19	Sulfur Dioxide (SO <sub>2</sub> )	50	PPM	0.1	C20	Unleaded Petrol	100	%LEL	1
T20	Sulfur Dioxide (SO <sub>2</sub> )	2000	PPM	1	C21	CNG/LNG/LPG/Natural Gas/Flammable Gas	100	%LEL	1

NDIR SENSOR TECHNOLOGY				
SR.NO	GASES	RANGE	UNIT	RES.
N1	Carbon Dioxide (CO <sub>2</sub> )	5000	PPM	1
N2	Carbon Dioxide (CO <sub>2</sub> )	5	%V/V	0.1
N3	Carbon Dioxide (CO <sub>2</sub> )	100	%V/V	1
N4	Methane(CH <sub>4</sub> )	100	%LEL	1
N5	Methane(CH <sub>4</sub> )	5	%V/V	0.1
N6	Methane(CH <sub>4</sub> )	100	%V/V	1
N7	Propane / LPG (C <sub>3</sub> H <sub>8</sub> )	100	%LEL	1
N8	Propane / LPG (C <sub>3</sub> H <sub>8</sub> )	5	%V/V	0.1
N9	Propane / LPG (C <sub>3</sub> H <sub>8</sub> )	100	%V/V	1

PID SENSOR TECHNOLOGY				
SR. No	GASES	RANGE	UNIT	RES
P1	Isobutylene(C <sub>4</sub> H <sub>8</sub> ) / other VOC	50	PPM	0.1
P2	Isobutylene(C <sub>4</sub> H <sub>8</sub> ) / other VOC	1000	PPM	1
P3	Isobutylene (SPAN C <sub>4</sub> H <sub>8</sub> ) / other VOC	5000	PPM	1

**NOTE:**

- In above Table, Range of gases start from zero.
- Confirm Gas sampling Hose length by enquiry & it is available only for Suction type detector.
- **Gases which are not listed, are available on request & for other details contact factory.**
- All VOCs are available in PID detection principle in PPM ranges.
- PID detector will be provided by calibration with Isobutylene gas.
- In PID detector, VOC other than Isobutylene is calibrated with Isobutylene gas by setting VOC correction factor,
- In Calibration Report, VOC factor with respect to Isobutylene gas will be mentioned.
- Detection value of VOC = Isobutylene gas concentration value x factor.

ORDER INFORMATION				
MODEL NO		DETECTION METHOD	DATA LOGGING OPTION	GAS NUMBER ,RANGE, RESOLUTION
PG-100	—	1) S= Suction 2) D= Diffusion	1) No Suffix = No Data Logging 2) L= Data Logging	Refer Gas List

**NOTE:** Select order code e.g. PG-100-SL-T8 i.e. PG-100 –SUCTION & DATA LOGGING – HYDROGEN 2000 PPM

Manufactured by :

**AMBETRONICS ENGINEERS PVT. LTD.**

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