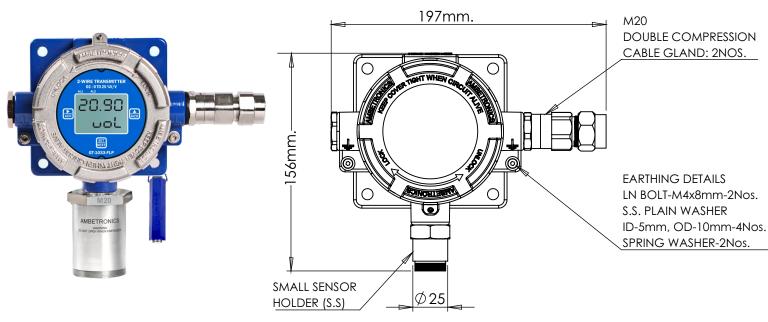
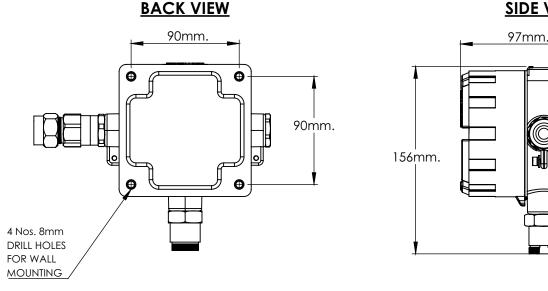
# LOOP POWERED TRANSMITTER FOR GAS GT- 1033-FLP



## **FRONT VIEW**



# **SIDE VIEW**



# MOUNTING DETAILS: 1) METAL WASHER: 1D-6mm, OD-12mm: 4Nos. 2)M5x30mm CHIPBOARD SCREW: 4Nos.

#### **FEATURES**

- Industrial Standard, 4-20mA output with Respect to Gas Concentration.
- · Loop Test, Assures Proper Operation of the Transmitter without Calibration Gas
- Easy Programming with Password Protection.
- Fast Response, Easy to Read Display.
- Easy to Replace Sensor Module; On Field Plug-N-Play module.
- Reverse Polarity Protection.
- No Additional Power Required.
- Highly Reliable, Fast, Accurate for Specific Gas Detection.
- Excellent Long Term Stability.
- User Friendly, Simple to Operate & Easy to Install.
- Reduced Operating, Maintenance and Installation Cost, One Man Calibration.
- Sensor Open/ Over Range Indication.
- Inhibit mode for service purpose, current output settable as per the requirement.
- EMC compliance to IEC 61000-4 standards.

#### **APPLICATIONS**

- · Gas Metering skid
- Gas Cylinder Bank
- Oil & Gas Industries
- Gas Pipeline Project
- Refineries
- Cold Storage
- Sewage Plants
- Fertilizers Plants
- 0. . . . . . . .
- Stack MonitoringChlorination Plant
- Ambient Monitoring
- Pulp & Paper Plants

- Control Atmosphere
- Heat Treatment Plants
- Chemical Processing Plant
- Acid Alkalize & Dyes mfg. Plants
- Offshore Drilling & Processing Platform
- Chemical Storage Area
- Coal Mine and Confined Area
- Power & Industrial Plants
- Bullets Yards / Storage Yard
- Chemical & Petrochemical Plants
- Gas Metering Station Burner / Furnace Areas
- Automotive Industrial/Paints Shops

### TECHNICAL SPECIFICATIONS

#### **GENERAL**

: Electrochemical Sensor/NDIR **Sensors** Range/Resolution : As specified in the Table

**Detection Method**: Diffusion **Response Time** : Less than 10sec.

**Display** : 2 line,4 digit Segmental LCD Display

**Set Point** : Two independent set point, with alarm symbol for

indication purpose. (There is no relay output)

Setting : By using Magnetic Wand for Flameproof Model.

By using Front Keys for Weatherproof Model.

Output : 4-20mA with HART enable

#### **ACCURACY**

Toxic/O, : ±2% of the full Scale Range. NDIR CH4 :  $\pm 0.2\%$  V/V or  $\pm 5\%$  of Applied Gas.

#### **ENVIRONMENTAL**

Operating Temp. : -15°C to +50°C Storage Temp. : -10 °C to +60°C

#### **ELECTRICAL**

**Load Resistance** 

**Power Supply & :** Load Driving capacity as follows: a)  $820 \Omega$  at 24VDC to 36VDC

> b) 680 Ω at 22VDC to 36VDC c)  $560 \Omega$  at 20VDC to 36VDCd)  $47 \Omega$  at 8VDC to 36VDC

#### **OUTPUT SIGNAL**

**Standard** : 4-20 mA Loop current output with configurable range.

#### **OPTIONAL ACCESSORIES**

- CE certified 24 VDC power supply
- · Gas sampling & conditioning system
- · Canopy & Mounting stand

#### **ERROR MONITORING**

- During Sensor break/ open the display shows 'OPEN' & Loop current will be Upscale/ Downscale.
- During Over Range the display shows 'OVER' & loop current will be Upscale/ Downscale.
- Upscale current = 21mA
- Downscale current = 3.7mA
- Inhibit mode current adjustable 3.8mA/ 4mA (for Toxic/NDIR) & 3.8mA/17.4mA (for Oxygen), user programmable.

#### **FLAMEPROOF HOUSING**

Degree of Protection Class : IP-66 / IP-68

• CIMFR CERTIFICATE NO. : IN/CIMFR/TR20/3007 Dt.:22/10/2020 **Housing Material** : Cast Aluminium LM6 alloy or Stainless Steel : Flameproof, Weatherproof IP66 Double **Cable Entry** 

Compression

Cable Gland - Model No.: CG/FLP/2C

M20 x 1.5 (P) & M25 x 1.5(P), ½" NPT & ¾" NPT

• CIMFR CERTIFICATE NO. : TC/P/1313 Dt.: 19/09/2018 PESO CERTIFICATE NO. : P431645/2 Dt.:19/11/2019

Dimension : 160 mm (H) with sensor holder x 195 mm (W) with

one cable gland & Stopping Plug x 97 mm (D)

: Wall Mounting / Stand Mounting / Pipe Mounting Mounting

Weight : Approx 1.25 Kg

| ELECTROCHEMICAL SENSOR TECHNOLOGY |                                     |           |        |      |  |  |
|-----------------------------------|-------------------------------------|-----------|--------|------|--|--|
| SR.<br>NO                         | GASES                               | RANGE     | UNIT   | RES. |  |  |
| 01                                | Oxygen (O <sub>2</sub> )            | 25        | % Vol. | 0.01 |  |  |
| NT1                               | Nitrogen (N <sub>2</sub> )          | 75 TO 100 | % Vol. | 0. 1 |  |  |
| TOXIC GASES                       |                                     |           |        |      |  |  |
| T1                                | Ammonia (NH₃)                       | 100       | PPM    | 1    |  |  |
| T2                                | Ammonia (NH₃)                       | 1000      | PPM    | 1    |  |  |
| T3                                | Bromine (Br <sub>2</sub> )          | 10        | PPM    | 0.01 |  |  |
| T4                                | Carbon Monoxide (CO)                | 1000      | PPM    | 1    |  |  |
| T5                                | Carbon Monoxide (CO)                | 2000      | PPM    | 1    |  |  |
| T6                                | Chlorine (CL <sub>2</sub> )         | 10        | PPM    | 0.01 |  |  |
| T7                                | Ethylene Oxide(ETO)                 | 100       | PPM    | 1    |  |  |
| T8                                | Hydrogen (H <sub>2</sub> )          | 2000      | PPM    | 1    |  |  |
| Т9                                | Hydrogen Bromide (HBr)              | 100       | PPM    | 1    |  |  |
| T10                               | Hydrogen Chloride (HCL)             | 100       | PPM    | 1    |  |  |
| T11                               | Hydrogen Cyanide(HCN)               | 100       | PPM    | 1    |  |  |
| T12                               | Hydrogen Fluoride (HF)              | 10        | PPM    | 0.01 |  |  |
| T13                               | Hydrogen Fluoride (HF)              | 100       | PPM    | 1    |  |  |
| T14                               | Hydrogen Sulfide (H₂S)              | 100       | PPM    | 1    |  |  |
| T15                               | Ozone (O <sub>3</sub> )             | 20        | PPM    | 0.01 |  |  |
| T16                               | Phosphine (PH <sub>3</sub> )        | 10        | PPM    | 0.01 |  |  |
| T17                               | Nitrogen Dioxide (NO <sub>2</sub> ) | 20        | PPM    | 0.01 |  |  |
| T18                               | Nitric Oxide(NO)                    | 250       | PPM    | 1    |  |  |
| T19                               | Sulfur Dioxide (SO <sub>2</sub> )   | 50        | PPM    | 0.1  |  |  |
| T20                               | Sulfur Dioxide (SO <sub>2</sub> )   | 2000      | PPM    | 1    |  |  |
| NDIR SENSOR TECHNOLOGY            |                                     |           |        |      |  |  |
| N4                                | Methane (CH <sub>4</sub> )          | 100       | %LEL   | 1    |  |  |

#### NOTE:

- In above Table, Range of gases start from zero.
- · Gases which are not listed, are available on request & for other details contact factory.

| ORDERING INFORMATION |               |          |                       |  |
|----------------------|---------------|----------|-----------------------|--|
| GT →                 | Α             | <b>→</b> | В                     |  |
|                      | 1             |          | <b>↓</b>              |  |
|                      | A. MODEL      |          | Select name and range |  |
|                      | 1. 1033 - WP  |          | of the Gas from the   |  |
|                      | 2. 1033 - FLP |          | above list            |  |

#### NOTE:

Select order code e.g. GT-1033-FLP-T8 i.e.

GT-1033 - Flameproof Enclosure - Hydrogen 2000 PPM

Manufactured by:























# AMBETRONICS ENGINEERS PVT. LTD.

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