GT-2511-FLP

SMART GAS TRANSMITTER
FOR OXYGEN / TOXIC / COMBUSTIBLE GASES

Features

- Provides a fast and reliable output by using Electro Chemical / Pellister Sensor Technology.
- Optimized for detection of smallest leak of Oxygen, Toxic and Combustible Gases.
- Highly resistant to poisoning and etching.
- Capable of detecting down to PPM, %LEL & %V/V.
- Digital display of Gas Concentration on LCD Display
- Standard 4-20mA signal output with configurable range.
- Non-Intrusive programming for Flameproof model using Magnetic pen.
- Password protected programming with password changing facility.
- One man Auto Software Gas Calibration.
- Optional Alarm relay contacts with two configurable Alarm levels & one Relay for fail safe relay.
- Optional STEL and TWA set points can be configured for Toxic Gases.
- Optional RS-485 communication port with MODBUS RTU Protocol.

Approval & Compliance

- Approval & Compliance for Flameproof:
  Certified to EX-d IIC, IP66
- Standard Compliance:
  - IS/IEC 60079-0 : 2004
  - IS/IEC 60079-1: 2007
  - IS/IEC 60529 : 2001

Applications

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

MUST FOR HUMAN AND INDUSTRIAL SAFETY
**General:**
- Detection Method: Electrochemical / Catalytic Bead Pellistor / Siegistor
- Gases Detected: Oxygen / Toxic / Combustible / VOC (Please select from the table below).
- Display: 8x2 Alphanumeric LCD Display with Backlit & 8 LEDs to indicate status of instrument
- Control Action:
  1. Two independent Alarm set points with Latch & Non-latch facility.
  2. User selectable Hysteresis and Logic option.
  3. Configurable STEL and TWA set points for Toxic Gases (optional).
- Setting: By using Magnetic pen for Flameproof model
- Alarm: Buzzer & Flasher for Alarm Indication
  - 2511-FLP (Flameproof)

**Performance:**
- Accuracy: ±2% of Full Scale.
- Response Time:
  - T20 < 18 Seconds
  - T50 < 22 Seconds
  - T90 < 40 Seconds
- Start-up Time: Less than 30 Seconds.

**Electrical:**
- Supply Voltage: 18 to 36 VDC, Typically 24VDC
- Power Consumption: Less than 3.6 Watts.
- Cable: 3 Wires (1.5 mm²) Flexible or Armoured Shielded Cable
- Environmental:
  - Operating Temperature: -15°C to +55°C
  - Storage Temperature: -10 to +60°C
  - Humidity: Less than 95% Non-Condensing.

**Error Monitoring:**
- During Sensor Break / Open, the Display shows 'SENSOR OPEN' & 4-20mA output goes down to 3.7mA for Combustible gases only.
- During Over range, the Display shows 'OVER RANGE' & 4-20mA output goes up to 21mA.

**Accessories (Optional):**
- Gas Sampling & Conditioning System.
- Gas Calibration Kit (0.5, 1, 3, 10)Liter.
- PC Based SCADA Software, Modem
- Hooter Cum Flasher.

**Flameproof Housing:**
- Protection Class: IP-66
- Cabinet Material: Cast Aluminium alloy, LM-6
- Cable Entry: Double compression cable gland (Ex-Proof) M20 X 1.5P, ½” NPT & ¾” ET-Type
- Dimension: 190mm (H) with sensor holder x15mm (W) with stopper plug & cable gland x 125mm (D)
- Mounting: Wall Mounting / Stand Mounting / Pipe Mounting
- Weight: Approx 2.53kg

**Output Signal:**
- Standard: 4-20mA Current Output with configurable range selection with 470 ohm load driving capacity.
- Optional: Three SPDT Relays (one for FailSafe and Two for Alarm indication) of rating ‘2A/120VAC, 2A/24VDC’.
- Optional: RS-485 Communication port with MODBUS RTU protocol.

**List of Gas Transmitters with Ranges & Resolution:**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Gases</th>
<th>Range</th>
<th>Unit</th>
<th>RES.</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Oxygen (O₂)</td>
<td>25%</td>
<td>Vol.</td>
<td>0.1</td>
</tr>
<tr>
<td>02</td>
<td>Oxygen (O₂)</td>
<td>100%</td>
<td>Vol.</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>TOXIC GASES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>Carbon Monoxide (CO)</td>
<td>1000 PPM</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>T2</td>
<td>Sulphur Dioxide (SO₂)</td>
<td>50 PPM</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>T3</td>
<td>Hydrogen Sulfide (H₂S)</td>
<td>1000 PPM</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>T5</td>
<td>Ammonia (NH₃)</td>
<td>100 PPM</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>T6</td>
<td>Hydrogen (H₂)</td>
<td>100 PPM</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>T7</td>
<td>Chlorine (Cl₂)</td>
<td>20 PPM</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>T8</td>
<td>Hydrogen Chloride (HCL)/ Hydrogen Bromide (HBr)</td>
<td>20 PPM</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>T9</td>
<td>Nitrogen Dioxide (NO₂)</td>
<td>20 PPM</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>T10</td>
<td>Hydrogen Cyanide (HCN)</td>
<td>100 PPM</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>T13</td>
<td>Ozone (O₃)</td>
<td>5 PPM</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>T14</td>
<td>Phosphine (Ph₃)</td>
<td>10 PPM</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td><strong>COMBUSTIBLE GASES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T15</td>
<td>Hydrazine (N₂H₄)</td>
<td>1 PPM</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>T18</td>
<td>Bromine (Br₂)</td>
<td>20 PPM</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>T19</td>
<td>Hydrogen Fluoride (HF)</td>
<td>10 PPM</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>T20</td>
<td>Phosgene/Cobalt Chloride (COCl₂)</td>
<td>1 PPM</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>Methane (CH₄)</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td>Butane/n-Butane(C₄H₁₀)</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>Propane/n-Propane (C₃H₈)</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>Acetylene (C₂H₂)</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C5</td>
<td>Hexane/n-Hexane (C₆H₁₄)</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C6</td>
<td>CNG</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C7</td>
<td>LNG</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C8</td>
<td>LPG</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C9</td>
<td>Natural Gas</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C10</td>
<td>Pentane/n-Pentane (C₅H₁₂)</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C11</td>
<td>Flammable (Explosive) Gas</td>
<td>100 %LEL</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**ORDERING INFORMATION:**

- **GT——**
  - **A** — Model No.
    - 1) 2511-FLP
  - **B** — Enclosure
    - 1) FLP (Flameproof)
  - **C** — Gas
    - Please select the Serial No. of the gas from the list given above.
  - **D** — Retransmission Output
    - 1) None
    - 2) 4 to 20mA
  - **E** — Relay Output
    - 1) None
    - 2) 3 Relays (All, AL2 FailSafe Relay)
  - **F** — Communication Port
    - 1) None
    - 2) RS-485 serial port
  - **G** — Sensor Housing
    - 1) Stainless Steel (316L)

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

**Manufactured by:**
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**Dealers:**