Remote toxic and oxygen gas detector for industrial applications

Use
3 wire, 4-20mA and RS485 MODBUS output fixed point detector with in-built alarm and fault relays for the protection of personnel and plant from toxic and oxygen hazards. Incorporating a transmitter with local display and optional remote mounted sensor, fully configurable via non-intrusive magnetic switch interface with a wide range integral and remote sensors available.

Electrical
Input Voltage Range
16 to 32VDC (24VDC nominal)
Max Power Consumption
Maximum power consumption is dependent on the type of gas sensor being used. Electrochemical cells = 3.7W
Maximum inrush current = 800mA at 24VDC
Current Output Relays
Sink or source
3 x 9Vd250VAC. Selectable normally open or normally closed (switch) and energized/de-energised (programmable)
Alarm relays default normally open/energized. Fault relay default normally open/energized
Communication
RS485

Construction
Material
Housing: Epoxy painted aluminium alloy LM25 or 316 stainless steel
Sensor: Polyphenylene sulfide (PPS) (see Sensepoint specifications)

Weight (approx)
Aluminium Alloy LM25: 4.4lbs
316 Stainless Steel: 11lbs

Mounting
Integral mounting plate with 4 x mounting holes suitable for M8 bolts. Optional pipe mounting kit for horizontal or vertical pipe Ø1.5 to 3" (2" nominal)

Cable Entries
2 x ¾"NPT conduit entries. Suitable blanking plug supplied for use if only 1 entry used. Seal to maintain IP rating

Environmental
IP Rating
IP67 in accordance with EN60529:1992
Certified Temperature Range
40ºF to +149ºF (-40ºC to +65ºC)

Detectable Gases and XCD RTD Sensor Performance

<table>
<thead>
<tr>
<th>Gas</th>
<th>Displayed Name</th>
<th>Range</th>
<th>Lower Alarm</th>
<th>Lower Alarm Type</th>
<th>Higher Alarm</th>
<th>Higher Alarm Type</th>
<th>Lowest Alarm Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Sulphide</td>
<td>H2S</td>
<td>50.0 ppm</td>
<td>10.0ppm</td>
<td>Rising</td>
<td>20.0ppm</td>
<td>Rising</td>
<td>5.0ppm</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>200 ppm</td>
<td>40ppm</td>
<td>Rising</td>
<td>80ppm</td>
<td>Rising</td>
<td>20ppm</td>
</tr>
<tr>
<td>Chlorine</td>
<td>Cl2</td>
<td>5.0 ppm</td>
<td>0.5 ppm</td>
<td>Rising</td>
<td>2.0ppm</td>
<td>Rising</td>
<td>5.0ppm</td>
</tr>
<tr>
<td>Ammonia</td>
<td>NH3</td>
<td>50.0ppm</td>
<td>20.0ppm</td>
<td>Rising</td>
<td>30.0ppm</td>
<td>Rising</td>
<td>5.0ppm</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>H2</td>
<td>1000ppm</td>
<td>200ppm</td>
<td>Rising</td>
<td>400ppm</td>
<td>Rising</td>
<td>100ppm</td>
</tr>
<tr>
<td>Nitrogen Monoxide</td>
<td>NO</td>
<td>100 ppm</td>
<td>20pm</td>
<td>Rising</td>
<td>40ppm</td>
<td>Rising</td>
<td>10ppm</td>
</tr>
<tr>
<td>Sulphur Dioxide</td>
<td>SO2</td>
<td>15.0ppm</td>
<td>2.0ppm</td>
<td>Rising</td>
<td>6.0ppm</td>
<td>Rising</td>
<td>1.5ppm</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>NO2</td>
<td>10.0 ppm</td>
<td>2.0 ppm</td>
<td>Rising</td>
<td>4.0ppm</td>
<td>Rising</td>
<td>1.0ppm</td>
</tr>
<tr>
<td>Oxygen</td>
<td>O2</td>
<td>25.0% V/V</td>
<td>19.5% Vol</td>
<td>Falling</td>
<td>23.5% Vol</td>
<td>Rising</td>
<td>10.0%Vol</td>
</tr>
</tbody>
</table>

Certification
US, Latin America, Canada
cCSAus Ex d IIB+H2; Class I, Zone 1, AEx d IIB+H2; Class I, Division 2, Groups B, C & D
Class I, Zone 1, AEx d ia IIC Gb; Class I, Div. 2, Groups B, C and D
Inmetro Ex d IIC T6 Gb, Ex tu IIC T5PC Db, IP66, -40ºC < ta < +65ºC

EMC
CE: EN50270:2006 EN61000-6-4:2007, Ex d IIC T6 Gb, Ex tu IIC T8ºC Db, IP66, -40ºC < ta < +65ºC

Standards

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