4 Gas Type Defaults

The Display Board Software contains defaults for the Display Range, Alarm Set Points, Relay Styles, Buzzer Style and Analog Output Setup. When selecting the Gas Type in Factory Settings these defaults are selected. For special requests these defaults may need to be changed by accessing the appropriate menu items.

These settings can be viewed in [Menu]->[View Setting].

The alarm settings are changed in [Menu]->[Alarm Setup].

The relay style settings are changed in the [Menu]->[Relay Style].

The buzzer style settings are changed in [Menu]->[Buzzer Style].

The analog output 4-20mA and VDC output are changed in [Menu]->[A-Out Setup].

NOTE: Do the gas type selection first, before changing any of the above settings.
### 4.1 Toxic Gases Alarm1 Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>InputTrigger</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>0 – 250ppm</td>
<td>Instant</td>
<td>25ppm</td>
<td>20ppm</td>
<td>R1</td>
</tr>
<tr>
<td>1</td>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>0 – 1000ppm</td>
<td>Instant</td>
<td>25ppm</td>
<td>20ppm</td>
<td>R1</td>
</tr>
<tr>
<td>2</td>
<td>Hydrogen Sulfide</td>
<td>H2S</td>
<td>0 – 25ppm</td>
<td>Instant</td>
<td>5ppm</td>
<td>3ppm</td>
<td>R1</td>
</tr>
<tr>
<td>2</td>
<td>Hydrogen Sulfide</td>
<td>H2S</td>
<td>0 – 100ppm</td>
<td>Instant</td>
<td>5ppm</td>
<td>3ppm</td>
<td>R1</td>
</tr>
<tr>
<td>3</td>
<td>Sulphur Dioxide</td>
<td>SO2</td>
<td>0 – 6ppm</td>
<td>Instant</td>
<td>3ppm</td>
<td>2ppm</td>
<td>R1</td>
</tr>
<tr>
<td>5</td>
<td>Nitrogen Dioxide</td>
<td>NO2</td>
<td>0 – 10ppm</td>
<td>Instant</td>
<td>1.0ppm</td>
<td>0.8ppm</td>
<td>R1</td>
</tr>
<tr>
<td>6</td>
<td>Hydrogen</td>
<td>H2</td>
<td>0 – 1000ppm</td>
<td>Instant</td>
<td>300ppm</td>
<td>250ppm</td>
<td>R1</td>
</tr>
<tr>
<td>6</td>
<td>Hydrogen</td>
<td>H2</td>
<td>0 – 2000ppm</td>
<td>Instant</td>
<td>500ppm</td>
<td>400ppm</td>
<td>R1</td>
</tr>
<tr>
<td>7</td>
<td>Hydrogen Cyanide</td>
<td>HCN</td>
<td>0 – 50ppm</td>
<td>Instant</td>
<td>5ppm</td>
<td>3ppm</td>
<td>R1</td>
</tr>
<tr>
<td>9</td>
<td>Ammonia</td>
<td>NH3</td>
<td>0 – 100ppm</td>
<td>Instant</td>
<td>25ppm</td>
<td>20ppm</td>
<td>R1</td>
</tr>
<tr>
<td>9</td>
<td>Ammonia</td>
<td>NH3</td>
<td>0 – 1000ppm</td>
<td>Instant</td>
<td>25ppm</td>
<td>20ppm</td>
<td>R1</td>
</tr>
<tr>
<td>11</td>
<td>Ozone</td>
<td>O3</td>
<td>0 – 1ppm</td>
<td>Instant</td>
<td>0.3ppm</td>
<td>0.2ppm</td>
<td>R1</td>
</tr>
<tr>
<td>13</td>
<td>Chlorine</td>
<td>Cl2</td>
<td>0 – 5ppm</td>
<td>Instant</td>
<td>1.0ppm</td>
<td>0.8ppm</td>
<td>R1</td>
</tr>
<tr>
<td>14</td>
<td>Chlorine Dioxide</td>
<td>ClO2</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>0.5ppm</td>
<td>0.3ppm</td>
<td>R1</td>
</tr>
<tr>
<td>96</td>
<td>Arsine</td>
<td>AsH3</td>
<td>0 – 1ppm</td>
<td>Instant</td>
<td>0.5ppm</td>
<td>0.4ppm</td>
<td>R1</td>
</tr>
<tr>
<td>97</td>
<td>Phoshphine</td>
<td>PH3</td>
<td>0 – 5ppm</td>
<td>Instant</td>
<td>1.0ppm</td>
<td>0.8ppm</td>
<td>R1</td>
</tr>
<tr>
<td>97</td>
<td>Phoshphine</td>
<td>PH3</td>
<td>0 – 1ppm</td>
<td>Instant</td>
<td>0.5ppm</td>
<td>0.4ppm</td>
<td>R1</td>
</tr>
<tr>
<td>98</td>
<td>Silane</td>
<td>SiH4</td>
<td>0 – 50ppm</td>
<td>Instant</td>
<td>20ppm</td>
<td>18ppm</td>
<td>R1</td>
</tr>
<tr>
<td>99</td>
<td>Germane</td>
<td>GeH4</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>0.6ppm</td>
<td>0.5ppm</td>
<td>R1</td>
</tr>
<tr>
<td>100</td>
<td>Diborane</td>
<td>B2H6</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>0.5ppm</td>
<td>0.4ppm</td>
<td>R1</td>
</tr>
<tr>
<td>4</td>
<td>Nitric Oxide</td>
<td>NO</td>
<td>0 – 100ppm</td>
<td>Instant</td>
<td>25ppm</td>
<td>20ppm</td>
<td>R1</td>
</tr>
<tr>
<td>8</td>
<td>Hydrogen Chloride</td>
<td>HCl</td>
<td>0 – 30ppm</td>
<td>Instant</td>
<td>5ppm</td>
<td>3ppm</td>
<td>R1</td>
</tr>
<tr>
<td>12</td>
<td>Ethylene Oxide</td>
<td>ETO</td>
<td>0 – 20ppm</td>
<td>Instant</td>
<td>1ppm</td>
<td>0.8ppm</td>
<td>R1</td>
</tr>
<tr>
<td>101</td>
<td>Hydrogen Bromide</td>
<td>HBr</td>
<td>0 – 30ppm</td>
<td>Instant</td>
<td>3ppm</td>
<td>2ppm</td>
<td>R1</td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R:** Relay. **B:** Buzzer.
4.2 Toxic Gases Alarm2 Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>Input Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>0 – 250ppm</td>
<td>Instant</td>
<td>50ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>1</td>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>0 – 1000ppm</td>
<td>Instant</td>
<td>50ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>2</td>
<td>Hydrogen Sulfide</td>
<td>H2S</td>
<td>0 – 25ppm</td>
<td>Instant</td>
<td>10ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>2</td>
<td>Hydrogen Sulfide</td>
<td>H2S</td>
<td>0 – 100ppm</td>
<td>Instant</td>
<td>10ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>3</td>
<td>Sulphur Dioxide</td>
<td>SO2</td>
<td>0 – 6ppm</td>
<td>Instant</td>
<td>5.0ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>5</td>
<td>Nitrogen Dioxide</td>
<td>NO2</td>
<td>0 – 10ppm</td>
<td>Instant</td>
<td>3.0ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>6</td>
<td>Hydrogen</td>
<td>H2</td>
<td>0 – 1000ppm</td>
<td>Instant</td>
<td>500ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>6</td>
<td>Hydrogen</td>
<td>H2</td>
<td>0 – 2000ppm</td>
<td>Instant</td>
<td>750ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>7</td>
<td>Hydrogen Cyanide</td>
<td>HCN</td>
<td>0 – 50ppm</td>
<td>Instant</td>
<td>10ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>9</td>
<td>Ammonia Cyanide</td>
<td>NH3</td>
<td>0 – 100ppm</td>
<td>Instant</td>
<td>35ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>9</td>
<td>Ammonia Cyanide</td>
<td>NH3</td>
<td>0 – 1000ppm</td>
<td>Instant</td>
<td>35ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>11</td>
<td>Ozone</td>
<td>O3</td>
<td>0 – 1ppm</td>
<td>Instant</td>
<td>0.5ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>13</td>
<td>Chlorine Cyanide</td>
<td>Cl2</td>
<td>0 – 5ppm</td>
<td>Instant</td>
<td>2.0ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>14</td>
<td>Chlorine Dioxide</td>
<td>ClO2</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>1.0ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>96</td>
<td>Arsine</td>
<td>AsH3</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>0.75ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>97</td>
<td>Phosphine Cyanide</td>
<td>PH3</td>
<td>0 – 5ppm</td>
<td>Instant</td>
<td>2.0ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>97</td>
<td>Phosphine Cyanide</td>
<td>PH3</td>
<td>0 – 1ppm</td>
<td>Instant</td>
<td>0.75ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>98</td>
<td>Silane</td>
<td>SiH4</td>
<td>0 – 50ppm</td>
<td>Instant</td>
<td>35ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>99</td>
<td>Germane Cyanide</td>
<td>GeH4</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>1.0ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>100</td>
<td>Diborane Cyanide</td>
<td>B2H6</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>1.0ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>4</td>
<td>Nitric Oxide</td>
<td>NO</td>
<td>0 – 100ppm</td>
<td>Instant</td>
<td>35ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>8</td>
<td>Hydrogen Chloride</td>
<td>HCl</td>
<td>0 – 30ppm</td>
<td>Instant</td>
<td>20ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>12</td>
<td>Ethylene Oxide</td>
<td>ETO</td>
<td>0 – 20ppm</td>
<td>Instant</td>
<td>10ppm</td>
<td>R1, R2</td>
</tr>
<tr>
<td>101</td>
<td>Hydrogen Bromide</td>
<td>HBr</td>
<td>0 – 30ppm</td>
<td>Instant</td>
<td>10ppm</td>
<td>R1, R2</td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R:** Relay. **B:** Buzzer.
### 4.3 Toxic Gases Alarm3 Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>Alarm 3 Settings</th>
<th>Input Concentration</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>0 – 250ppm</td>
<td>Instant</td>
<td>100ppm</td>
<td>95ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>0 – 1000ppm</td>
<td>Instant</td>
<td>100ppm</td>
<td>95ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Hydrogen Sulfide</td>
<td>H2S</td>
<td>0 – 25ppm</td>
<td>Instant</td>
<td>15ppm</td>
<td>13ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Hydrogen Sulfide</td>
<td>H2S</td>
<td>0 – 100ppm</td>
<td>Instant</td>
<td>15ppm</td>
<td>13ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sulphur Dioxide</td>
<td>SO2</td>
<td>0 – 6ppm</td>
<td>Instant</td>
<td>6.0ppm</td>
<td>5.5ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Nitrogen Dioxide</td>
<td>NO2</td>
<td>0 – 10ppm</td>
<td>Instant</td>
<td>5.0ppm</td>
<td>4.5ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Hydrogen</td>
<td>H2</td>
<td>0 – 1000ppm</td>
<td>Instant</td>
<td>750ppm</td>
<td>700ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Hydrogen</td>
<td>H2</td>
<td>0 – 2000ppm</td>
<td>Instant</td>
<td>1000ppm</td>
<td>950ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Hydrogen Cyanide</td>
<td>HCN</td>
<td>0 – 50ppm</td>
<td>Instant</td>
<td>20ppm</td>
<td>15ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Ammonia</td>
<td>NH3</td>
<td>0 – 100ppm</td>
<td>Instant</td>
<td>50ppm</td>
<td>45ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Ammonia</td>
<td>NH3</td>
<td>0 – 1000ppm</td>
<td>Instant</td>
<td>300ppm</td>
<td>250ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Ozone</td>
<td>O3</td>
<td>0 – 1ppm</td>
<td>Instant</td>
<td>1.0ppm</td>
<td>0.9ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Chlorine</td>
<td>Cl2</td>
<td>0 – 5ppm</td>
<td>Instant</td>
<td>4.0ppm</td>
<td>3.5ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Chlorine Dioxide</td>
<td>ClO2</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>1.5ppm</td>
<td>1.2ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>Arsine</td>
<td>AsH3</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>1.0ppm</td>
<td>0.8ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>Phosphine</td>
<td>PH3</td>
<td>0 – 5ppm</td>
<td>Instant</td>
<td>3.0ppm</td>
<td>2.8ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>Phosphine</td>
<td>PH3</td>
<td>0 – 1ppm</td>
<td>Instant</td>
<td>1.0ppm</td>
<td>0.8ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>Silane</td>
<td>SiH4</td>
<td>0 – 50ppm</td>
<td>Instant</td>
<td>45ppm</td>
<td>40ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>Germane</td>
<td>GeH4</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>1.5ppm</td>
<td>1.2ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>Diborane</td>
<td>B2H6</td>
<td>0 – 2ppm</td>
<td>Instant</td>
<td>1.5ppm</td>
<td>1.2ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Nitric Oxide</td>
<td>NO</td>
<td>0 – 100ppm</td>
<td>Instant</td>
<td>50ppm</td>
<td>45ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Hydrogen Chloride</td>
<td>HCl</td>
<td>0 – 30ppm</td>
<td>Instant</td>
<td>25ppm</td>
<td>23ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Ethylene Oxide</td>
<td>ETO</td>
<td>0 – 20ppm</td>
<td>Instant</td>
<td>15ppm</td>
<td>13ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>Hydrogen Bromide</td>
<td>HBr</td>
<td>0 – 30ppm</td>
<td>Instant</td>
<td>25ppm</td>
<td>23ppm</td>
<td>R1, R2, R3, B1</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R:** Relay. **B:** Buzzer.
### 4.4 Toxic Gases Alarm 4 Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>0 – 250ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>1</td>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>0 – 1000ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>2</td>
<td>Hydrogen Sulfide</td>
<td>H2S</td>
<td>0 – 25ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>2</td>
<td>Hydrogen Sulfide</td>
<td>H2S</td>
<td>0 – 100ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>3</td>
<td>Sulphur Dioxide</td>
<td>SO2</td>
<td>0 – 6ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>5</td>
<td>Nitrogen Dioxide</td>
<td>NO2</td>
<td>0 – 10ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>6</td>
<td>Hydrogen</td>
<td>H2</td>
<td>0 – 1000ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>6</td>
<td>Hydrogen</td>
<td>H2</td>
<td>0 – 2000ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>7</td>
<td>Hydrogen Cyanide</td>
<td>HCN</td>
<td>0 – 50ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>9</td>
<td>Ammonia</td>
<td>NH3</td>
<td>0 – 100ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>9</td>
<td>Ammonia</td>
<td>NH3</td>
<td>0 – 1000ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>11</td>
<td>Ozone</td>
<td>O3</td>
<td>0 – 1ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>13</td>
<td>Chlorine</td>
<td>Cl2</td>
<td>0 – 5ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>14</td>
<td>Chlorine Dioxide</td>
<td>ClO2</td>
<td>0 – 2ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>96</td>
<td>Arsine</td>
<td>AsH3</td>
<td>0 – 1ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>97</td>
<td>Phosphine</td>
<td>PH3</td>
<td>0 – 5ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>97</td>
<td>Phosphine</td>
<td>PH3</td>
<td>0 – 1ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>98</td>
<td>Silane</td>
<td>SiH4</td>
<td>0 – 50ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>99</td>
<td>Germane</td>
<td>GeH4</td>
<td>0 – 2ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>100</td>
<td>Diborane</td>
<td>B2H6</td>
<td>0 – 2ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>4</td>
<td>Nitric Oxide</td>
<td>NO</td>
<td>0 – 100ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>8</td>
<td>Hydrogen Chloride</td>
<td>HCl</td>
<td>0 – 30ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>12</td>
<td>Ethylene Oxide</td>
<td>ETO</td>
<td>0 – 20ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
<tr>
<td>101</td>
<td>Hydrogen Bromide</td>
<td>HBr</td>
<td>0 – 30ppm</td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R:** Relay. **B:** Buzzer.
### 4.5 O2 Alarm Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>Alarm 1 Settings</th>
<th>Alarm 2 Settings</th>
<th>Alarm 3 Settings</th>
<th>Alarm 4 Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oxygen</td>
<td>O2</td>
<td>0 – 25%VOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Alarm 1 Settings**

<table>
<thead>
<tr>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>23%VOL</td>
<td>22%VOL</td>
<td>R1, B1</td>
</tr>
</tbody>
</table>

**Alarm 2 Settings**

<table>
<thead>
<tr>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>18.5%VOL</td>
<td>19%VOL</td>
<td>R1, R2, R3, B2</td>
</tr>
</tbody>
</table>

**Alarm 3 Settings**

<table>
<thead>
<tr>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>19%VOL</td>
<td>19.5%VOL</td>
<td>R1, R2, B2</td>
</tr>
</tbody>
</table>

**Alarm 4 Settings**

<table>
<thead>
<tr>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R:** Relay. **B:** Buzzer.
### 4.6 Combustible Gas Alarm Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Methane</td>
<td>CH4</td>
<td>0 – 100%LEL</td>
</tr>
<tr>
<td>17</td>
<td>Propane</td>
<td>C3H8</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Hydrogen</td>
<td>H2</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Combustible</td>
<td>LEL</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Ethylene</td>
<td>C2H4</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Iso-Butane</td>
<td>C4H10</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Iso-Pentane</td>
<td>C5H12</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Methanol</td>
<td>CH3OH</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Benzene</td>
<td>C6H6</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Acetone</td>
<td>CH3CO</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Butanol, n-Butane</td>
<td>BUTAN</td>
<td></td>
</tr>
</tbody>
</table>

#### Alarm 1 Settings

<table>
<thead>
<tr>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>20%LEL</td>
<td>15%LEL</td>
<td>R1</td>
</tr>
</tbody>
</table>

#### Alarm 2 Settings

<table>
<thead>
<tr>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>40%LEL</td>
<td>35%LEL</td>
<td>R1, R2</td>
</tr>
</tbody>
</table>

#### Alarm 3 Settings

<table>
<thead>
<tr>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>50%LEL</td>
<td>45%LEL</td>
<td>R1, R2, R3, B1</td>
</tr>
</tbody>
</table>

#### Alarm 4 Settings

<table>
<thead>
<tr>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B1</td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R:** Relay. **B:** Buzzer.
### 4.7 5000PPM CO2 Alarm Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>Alarm 1 Settings</th>
<th>Alarm 2 Settings</th>
<th>Alarm 3 Settings</th>
<th>Alarm 4 Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Carbon Dioxide</td>
<td>CO2</td>
<td>0 – 5000PPM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Input

<table>
<thead>
<tr>
<th>Input</th>
<th>On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>2500PPM</td>
<td>2000PPM</td>
<td>R1</td>
</tr>
<tr>
<td>Instant</td>
<td>3500PPM</td>
<td>3000PPM</td>
<td>R1, R2</td>
</tr>
<tr>
<td>TWA</td>
<td>2500PPM</td>
<td>2000PPM</td>
<td>R1, R2, R3, B1</td>
</tr>
<tr>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R:** Relay. **B:** Buzzer.
### 4.8 5%VOL CO2 Alarm Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>Alarm 1 Settings</th>
<th>Alarm 2 Settings</th>
<th>Alarm 3 Settings</th>
<th>Alarm 4 Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Carbon Dioxide</td>
<td>CO2</td>
<td>0 – 5%VOL</td>
<td>Input</td>
<td>Output Trigger</td>
<td>Input</td>
<td>Output Trigger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>On Concentration</td>
<td>Instant</td>
<td>Input</td>
<td>Instant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Off Concentration</td>
<td>Instant</td>
<td>Input</td>
<td>Instant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Instant</td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Input</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R:** Relay. **B:** Buzzer.
### 4.9 20%VOL CO2 Alarm Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>Alarm 1 Settings</th>
<th>Alarm 2 Settings</th>
<th>Alarm 3 Settings</th>
<th>Alarm 4 Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Input</td>
<td>On Concentration</td>
<td>Off Concentration</td>
<td>Output Trigger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Instant</td>
<td>10%VOL</td>
<td>8.0%VOL</td>
<td>R1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Instant</td>
<td>15%VOL</td>
<td>12%VOL</td>
<td>R1, R2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>15%VOL</td>
<td>12%VOL</td>
<td>R1, R2, R3, B1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R:** Relay. **B:** Buzzer.
### 4.10 100%VOL CO2 Alarm Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Carbon Dioxide</td>
<td>CO2</td>
<td>0 – 100%VOL</td>
</tr>
</tbody>
</table>

<p>|<br />
| Alarm 1 Settings |</p>
<table>
<thead>
<tr>
<th>Input On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>20%VOL</td>
<td>15%VOL</td>
</tr>
</tbody>
</table>

<p>|<br />
| Alarm 2 Settings |</p>
<table>
<thead>
<tr>
<th>Input On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>40%VOL</td>
<td>35%VOL</td>
</tr>
</tbody>
</table>

<p>|<br />
| Alarm 3 Settings |</p>
<table>
<thead>
<tr>
<th>Input On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant</td>
<td>50%VOL</td>
<td>45%VOL</td>
</tr>
</tbody>
</table>

<p>|<br />
| Alarm 4 Settings |</p>
<table>
<thead>
<tr>
<th>Input On Concentration</th>
<th>Off Concentration</th>
<th>Output Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAULT</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. **R**: Relay. **B**: Buzzer.
### 4.11 100%LEL IR-CH4 Alarm Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>Alarm 1 Settings</th>
<th>Alarm 2 Settings</th>
<th>Alarm 3 Settings</th>
<th>Alarm 4 Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Methane</td>
<td>CH4</td>
<td>0 - 100%LEL</td>
<td>Instant</td>
<td>Instant</td>
<td>Instant</td>
<td>Instant</td>
</tr>
</tbody>
</table>

- **Input**: Instant
- **On Concentration**: 20%LEL
- **Off Concentration**: 15%LEL
- **Output Trigger**: R1

- **Input**: Instant
- **On Concentration**: 40%LEL
- **Off Concentration**: 35%LEL
- **Output Trigger**: R1, R2

- **Input**: Instant
- **On Concentration**: 50%LEL
- **Off Concentration**: 47%LEL
- **Output Trigger**: R1, R2, R3, B1

- **Input**: FAULT
- **On Concentration**: ---
- **Off Concentration**: ---
- **Output Trigger**: R3, B3

**Note**: Alarm 5, 6, 7, 8 are disabled as factory defaults. **R**: Relay. **B**: Buzzer.
### 100%VOL IR-CH4 Alarm Default Settings

<table>
<thead>
<tr>
<th>Code</th>
<th>Gas</th>
<th>Symbol</th>
<th>Span</th>
<th>Alarm1 Settings</th>
<th>Alarm2 Settings</th>
<th>Alarm3 Settings</th>
<th>Alarm4 Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Methane</td>
<td>CH4</td>
<td>0 – 100%VOL</td>
<td>Input</td>
<td>On Concentration</td>
<td>Off Concentration</td>
<td>Output Trigger</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Instant</td>
<td>25%VOL</td>
<td>20%VOL</td>
<td>R1, R2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Instant</td>
<td>35%VOL</td>
<td>30%VOL</td>
<td>R1, R2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STEL</td>
<td>25%VOL</td>
<td>20%VOL</td>
<td>R1, R2, R3, B1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FAULT</td>
<td>---</td>
<td>---</td>
<td>R3, B3</td>
</tr>
</tbody>
</table>

**Note:** Alarm 5, 6, 7, 8 are disabled as factory defaults. R: Relay. B: Buzzer.
### 4.13 Relay Style Default Settings

<table>
<thead>
<tr>
<th>Relay1 Settings</th>
<th>Flag</th>
<th>Style1</th>
<th>Style2</th>
<th>Style3</th>
<th>On Delay</th>
<th>Off Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>√ Enabled</td>
<td>Normally De-Energized</td>
<td>√ Non-Latching</td>
<td>√ Relay Mode</td>
<td>5 Seconds</td>
<td>5 Seconds</td>
</tr>
<tr>
<td>Disabled</td>
<td></td>
<td>Normally Energized</td>
<td>Latching</td>
<td>Buzzer Mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disabled</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relay2 Settings</th>
<th>Flag</th>
<th>Style1</th>
<th>Style2</th>
<th>Style3</th>
<th>On Delay</th>
<th>Off Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>√ Enabled</td>
<td>Normally De-Energized</td>
<td>√ Non-Latching</td>
<td>√ Relay Mode</td>
<td>5 Seconds</td>
<td>5 Seconds</td>
</tr>
<tr>
<td>Disabled</td>
<td></td>
<td>Normally Energized</td>
<td>Latching</td>
<td>Buzzer Mode</td>
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<th>Style2</th>
<th>Style3</th>
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<th>Off Delay</th>
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</thead>
<tbody>
<tr>
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<td>Normally De-Energized</td>
<td>√ Non-Latching</td>
<td>√ Relay Mode</td>
<td>5 Seconds</td>
<td>5 Seconds</td>
</tr>
<tr>
<td>Disabled</td>
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<td>Latching</td>
<td>Buzzer Mode</td>
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### 4.14 Buzzer Style Default Settings

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<tbody>
<tr>
<td></td>
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<td>✓ Chirp Once</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chirp Twice</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Duty 50% ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Constant ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disabled</td>
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<td>Chirp Once</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chirp Twice</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>✓ Duty 50% ON</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Chirp Once</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓ Chirp Twice</td>
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<tr>
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<td></td>
<td>Duty 50% ON</td>
<td></td>
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4.15 A-Out Default Settings

<table>
<thead>
<tr>
<th>Input</th>
<th>Concentration at 4mA</th>
<th>Concentration at 20mA</th>
<th>VDC Output</th>
</tr>
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<tbody>
<tr>
<td>√ Instantaneous</td>
<td>See table in next page</td>
<td>See table in next page</td>
<td>1 – 5VDC</td>
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<tr>
<td>STEL (15 Minutes)</td>
<td></td>
<td></td>
<td>2 - 10VDC</td>
</tr>
<tr>
<td>TWA (8 Hours)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Daily PEAK (24 Hours)</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

STEL: (Short Term Exposure Limit) The maximum concentration of a chemical to which workers may be exposed continuously for up to 15 minutes without danger to health or work efficiency and safety.

TWA: (Time Weighted Average) The average exposure to a contaminant or condition to which workers may be exposed without adverse effect over a period such as in an 8-hour day or 40-hour week.

When VDC output is set to “1 – 5VDC”

- Q5 outputs 1VDC when the current 4mA is output.
- Q5 outputs 5VDC when the current 20mA is output.

When VDC output is set to “2 – 10VDC”

- VDC outputs 2V when the analog current output outputs 4mA.
- VDC outputs 10V when the analog current output outputs 20mA.

So there is no specific/separate gas concentration for the VDC output. It follows the 4-20mA output.