A Range of 24Vdc operated ATEX approved Ex d & I.S. audible and visual alarms available for use in a wide range of indoor or outdoor hazardous area applications
A Range of 24Vdc operated, ATEX approved Ex d and I.S. audible and visual alarms, available for use in a wide range of indoor or outdoor hazardous area applications. When combined with the Honeywell range of fixed point gas monitoring equipment, the systems can provide clear warning to operators that flammable or toxic gas hazards are in the area.

**Hazardous Area DC Audible and Visual Alarms**

**Ex d Audible Alarms**

**Features**
- Maximum output: 117dB(A) @ 1 metre
- Nominal output: 110dB(A) @ 1m +/- 3dB - Tone 2
- ATEX II 2G Ex d IIC T4 (Tamb. -50 to +55°C)
- ATEX / CENELEC / FTZU / IECEx / GOST R
- 32 alarm tones (UKOOA / PFEER compliant)
- 3 stage alarm
- Volume control
- Automatic synchronisation on multi-sounder systems
- 100m effective range @ 1kHz
- Voltage: 24vdc +/-25%, 250mA
- Negative or positive remote switching
- Ingress Protection: IP67
- Enclosure material: Marine grade LM6 Aluminium Chromated & powder coated finish - good resistance to humidity and salt spray environments
- Horn Material: High impact UL94 V0 & 5VA FR ABS
- Operating temperature: -50 to +55°C
- Storage temperature: -50 to +70°C
- Large range of certified end of line resistors.
- Weight: 3.20kg
- KEMA Certificate number: 99ATEX6312
- Very large termination area
- Dual M20 ISO cable gland entries (supplied with one stopping plug)
- Ratchet adjustable stainless steel 'U' bracket for positive adjustment under harsh conditions
- In and out terminals
- Terminals accept 0.5 to 4.0mm² cables
- Line monitoring: Min. 500 Ohm 2w, or 3k3 Ohm 0.5w resistor, or diode within Exd enclosure (dc versions)

Flameproof sounders which are certified to the European Standards EN 50014:1992 and EN 50018:1994 and meet the requirements of ATEX directive 94/9/EC. The sounders produce loud warning signals and can be used in hazardous areas where potentially flammable atmospheres may be present. Thirty two different first stage alarm sounds can be selected and each one can be externally changed to a second or third stage alarm sound (see tone table below). The unit produces output levels in the 117dB(A) range. Suitable for use in Zone 1 and Zone 2 areas with gases in groups IIA, IIB and temperature classifications of T1, T2, T3 and T4.

**Configuration**

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Frequency Description</th>
<th>Max dB @ 1m</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tone 1</td>
<td>1000kHz continuous - PFEER toxic gas</td>
<td>110dB(A)@1m</td>
<td>Tone 31</td>
<td>Tone 11</td>
</tr>
<tr>
<td>Tone 2</td>
<td>800/1000Hz @ 0.25 sec alternating</td>
<td>110dB(A)@1m</td>
<td>Tone 17</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 3</td>
<td>500/1200Hz @ 0.5 Hz slow whoop</td>
<td>110.5dB(A)@1m</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 4</td>
<td>800/1000Hz @ 1Hz sweeping</td>
<td>110dB(A)@1m</td>
<td>Tone 6</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 5</td>
<td>2400kHz continuous</td>
<td>109dB(A)@1m</td>
<td>Tone 3</td>
<td>Tone 27</td>
</tr>
<tr>
<td>Tone 6</td>
<td>2400/2900Hz @ 1Hz sweeping</td>
<td>109dB(A)@1m</td>
<td>Tone 7</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 7</td>
<td>2400/2900Hz @ 1Hz sweeping</td>
<td>110dB(A)@1m</td>
<td>Tone 10</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 8</td>
<td>500/1200/500Hz @ 0.3Hz sweeping</td>
<td>110.5dB(A)@1m</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 9</td>
<td>1200/500Hz @ 1Hz - DIN/PFEER P.T.A.P</td>
<td>110.5dB(A)@1m</td>
<td>Tone 15</td>
<td>Tone 2</td>
</tr>
</tbody>
</table>

Continued on page 2
### Ex d Audible Alarms

#### Configuration continued

<table>
<thead>
<tr>
<th>Tone</th>
<th>Frequency Details</th>
<th>Sound Level (dB) @ 1m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tone 10</td>
<td>2400/2900Hz @ 2Hz alternating</td>
<td>109dB(A)</td>
</tr>
<tr>
<td>Tone 11</td>
<td>1000Hz @ 0.5Hz intermittent</td>
<td>110.5dB(A)</td>
</tr>
<tr>
<td>Tone 12</td>
<td>800/1000Hz @ 0.875Hz alternating</td>
<td>110dB(A)</td>
</tr>
<tr>
<td>Tone 13</td>
<td>2400Hz @ 1Hz intermittent</td>
<td>109dB(A)</td>
</tr>
<tr>
<td>Tone 14</td>
<td>800Hz @ 0.25 sec on, 1 sec off intermittent</td>
<td>103dB(A)</td>
</tr>
<tr>
<td>Tone 15</td>
<td>800Hz continuous</td>
<td>103dB(A)</td>
</tr>
<tr>
<td>Tone 16</td>
<td>660Hz 150ms on, 150ms off intermittent</td>
<td>104dB(A)</td>
</tr>
<tr>
<td>Tone 17</td>
<td>544Hz (100ms) / 440Hz (400ms) - NF S 32-001</td>
<td>107dB(A)</td>
</tr>
<tr>
<td>Tone 18</td>
<td>660Hz 1.8 sec on, 1.8 sec off intermittent</td>
<td>105dB(A)</td>
</tr>
<tr>
<td>Tone 19</td>
<td>1.4KHz - 1.6KHz 1s, 1.6KHz - 1.4KHz 0.5s - NFC48-265</td>
<td>117dB(A)</td>
</tr>
<tr>
<td>Tone 20</td>
<td>660Hz continuous</td>
<td>104dB(A)</td>
</tr>
<tr>
<td>Tone 21</td>
<td>554Hz / 440Hz @ 1Hz alternating</td>
<td>107dB(A)</td>
</tr>
<tr>
<td>Tone 22</td>
<td>544Hz @ 0.875 sec. intermittent</td>
<td>107dB(A)</td>
</tr>
<tr>
<td>Tone 23</td>
<td>800Hz @ 2Hz intermittent</td>
<td>103dB(A)</td>
</tr>
<tr>
<td>Tone 24</td>
<td>800 / 1000Hz @ 50Hz sweeping</td>
<td>107dB(A)</td>
</tr>
<tr>
<td>Tone 25</td>
<td>2400 / 2900Hz @ 50Hz sweeping</td>
<td>109dB(A)</td>
</tr>
<tr>
<td>Tone 26</td>
<td>Bell</td>
<td>117dB(A)</td>
</tr>
<tr>
<td>Tone 27</td>
<td>554Hz continuous</td>
<td>107dB(A)</td>
</tr>
<tr>
<td>Tone 28</td>
<td>440Hz continuous</td>
<td>104dB(A)</td>
</tr>
<tr>
<td>Tone 29</td>
<td>800 / 1000Hz @ 1Hz sweeping</td>
<td>106dB(A)</td>
</tr>
<tr>
<td>Tone 30</td>
<td>420Hz @ 0.625 sec intermittent - Australian alert</td>
<td>104dB(A)</td>
</tr>
<tr>
<td>Tone 31</td>
<td>1200 / 50Hz @ 1Hz - DIN / PFEER P.T.A.P</td>
<td>110.5dB(A)</td>
</tr>
<tr>
<td>Tone 32</td>
<td>500 - 1200Hz 3.75 sec / 0.25 sec - Australian evac.</td>
<td>110.5dB(A)</td>
</tr>
</tbody>
</table>

#### Sound levels for guidance purposes only (typically +/-3dB) at nominal voltage.

#### Dimensions

![Dimensions Diagram]

#### Wiring

![Wiring Diagram]
Flameproof beacons which are certified to the European Standards EN 50014:1992 and EN 50018:1994 and meet the requirements of ATEX directive 94/9/EC. The beacons produce synchronized visual warning signals and can be used in hazardous areas where potentially flammable atmospheres may be present. The beacons have an output of 5 joules and are suitable for use in Zone 1 and Zone 2 areas with gases in groups IIA, IIB and IIC and temperature classifications of T1, T2, T3 and T4. The unit can be used in Zone 21 and Zone 22 areas for combustible dusts and has an IP rating of IP67 and a surface temperature rating of T100°C or T85°C if the upper ambient temperature is restricted to +40°C.

**Features**

- 5 Joule Xenon: 1Hz (60 FPM) (5 Ws)
- ATEX II 2GD Ex d IIC T5 T100°C
- ATEX II 2GD Ex d IIC T6 T85°C
- ATEX / CENELEC / FTZU / IECEx / GOST R
- Suitable for Zone 1, 2, 21 and 22 gas groups IIC IB and IIA
- Voltage and current: 24vdc, 300mA
- Red or amber lens colours available
- Automatic synchronisation on multi-beacon systems
- Beacons can be set to ‘flip-flop’ alternating mode with other units on multi-beacon systems
- Tube life: emissions reduced to 70% after 8 million flashes
- Xenon tubes mechanically secured against shock/vibration
- Ingress Protection: IP67
- Enclosure material: Marine grade LM6 Aluminium
- Chromated & powder coated finish - good resistance to humidity and salt spray environments
- Glass lens and Stainless Steel guard
- Colour available: Red (RAL3000)
- Operating temperature: -50 to +55°C (Exd IIC T5)
-50 to +40°C (Exd IIC T6)
- Storage temperature: -50 to +70°C
- Large range of certified end of line resistors
- Weight: 2.45kg KEMA Certificate number: 00ATEX2006 X

**Synchronised Mode**

![Synchronised Mode Diagram](image)

**Flip Flop (alternating) Mode**

![Flip Flop Mode Diagram](image)

**Dimensions**

![Dimensions Diagram](image)
Combined Ex d Audible and Visual Alarms

Features
- ATEX Zones 1 and 2, II 2G Ex d IIB T4
- ATEX / CENELEC / FTZU / IECEx / GOST R
- Voltage 24vdc, power 250mA (sounder), 270mA (beacon)
- Ingress Protection IP67
- Enclosure material: Marine grade LM6 Aluminium
- Chromated & powder coated finish - good resistance to humidity and salt spray environments
- Horn: High impact UL94 V0 & 5VA FR ABS
- Operating temperature: -50 to +55°C
- Storage temperature: -50 to +70°C
- Large range of certified end of line resistors
- Weight: DC:4.80kg
- KEMA Certificate number: 01ATEX2223
- Very large termination area
- Dual M20 ISO cable gland entries (supplied with one stopping plug)
- Ratchet adjustable stainless steel 'U' bracket for positive adjustment under harsh conditions
- In and out terminals
- Terminals accept 0.5 to 4.0mm² cables.
- Line monitoring: Min. 500 Ohm 2w, or 3k3 Ohm 0.5w resistor, or diode within Exd enclosure (dc versions)
- Horn: High impact UL94 V0 & 5VA FR ABS
- Operating temperature: -50 to +55°C
- Storage temperature: -50 to +70°C
- Large range of certified end of line resistors
- Weight: DC:4.80kg
- KEMA Certificate number: 01ATEX2223
- Very large termination area
- Dual M20 ISO cable gland entries (supplied with one stopping plug)
- Ratchet adjustable stainless steel 'U' bracket for positive adjustment under harsh conditions
- In and out terminals
- Terminals accept 0.5 to 4.0mm² cables.
- Line monitoring: Min. 500 Ohm 2w, or 3k3 Ohm 0.5w resistor, or diode within Exd enclosure (dc versions)

Sounder
- Maximum output: 117dB(A) @ 1 metre
- Nominal output: 110dB(A) @ 1m +/- 3dB - Tone 2
- 32 alarm tones (UKDOA / PFEER compliant)
- 3 stage alarm
- Volume control
- Automatic synchronisation on multi-sounder systems
- 100m effective range @ 1kHz
- Negative or positive remote switching

Beacon
- 5 Joule Xenon: 1Hz (60 FPM) (5 Watts)
- Red and amber lens colours available
- Automatic synchronisation on multi-beacon systems
- Beacons can be set to 'flip-flop' alternating mode with other units on multi-beacon systems
- Tube life: emissions reduced to 70% after 8 million flashes
- Xenon tubes mechanically secured against shock/vibration

Flameproof combined sounder/beacon which is certified to the European Standards EN 50014:1992 and EN 50018:1994 and meets the requirements of ATEX directive 94/9/EC. The sounder section produces loud warning signals and the beacon section produces a synchronized visual warning signal. The unit can be used in hazardous areas where potentially flammable atmospheres may be present. Thirty two different first stage alarm sounds can be selected, and each one can be externally changed to a second or third stage alarm sound (see tone table). The sounder produces output levels in the 117dB(A) range and the beacon produces an output level of 5 joules. Suitable for use in Zone 1 and Zone 2 areas with gases in groups IIA, IIB and temperature classifications of T1, T2, T3 and T4.

Wiring
Sounder and beacon can be operated from a single supply for simultaneous operation, or from separate supplies for independent operation.

Beacon and sounder wired for independent operation.

Beacon and sounder wired for simultaneous operation.

Dimensions
Ex ia Audible Alarms

Features
- II 1G Ex ia IIC T4 (-40°C<=Ta<=+60°C)
- Rated for Zone 0,1 & 2, gas group IIC
- ABS flame retardant UL94V0 & 5VA housings
- Colour: Red RAL3000
- Ingress Protection: IP65
- Terminals accept 0.5 to 2.5mm² cables.
- Operating temperature: -40 to +60°C
- Storage temperature: -40 to +70°C
- Relative humidity: 90% at 50°C
- Installation: May be powered from any certified Zener barrier whose output parameters do not exceed: Uo : 28VDC Io : 93mA Po : 660mW from any galvanic isolator specified by the system certificates
- 2 x M20 knockouts
- Output: 100dB(A) @ 1 metre
- 49 alarm tone configurations (PFEER/UK0A compliant)
- 3 stage alarm
- Auto synchronised sound output
- Effective range at 1 kHz : 40m
- Voltage: 16-28vdc via Zener barrier or galvanic isolator
- End of line resistor certified
- Input overload and reverse current protection
- Current: 25mA typical when powered from 24v supply via 28v 3000ohm Zener barrier

An ATEX certified intrinsically safe sounder which produces a loud warning signal in a hazardous area. Forty-nine first stage alarm sounds can be selected by internal switches and each one can be externally changed to a second or third stage alarm sound. The sounder may be used in all gas groups IIA, IIB and IIC.

Configuration

<table>
<thead>
<tr>
<th>Stage 1 Frequency Description</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tone 1 340Hz continuous</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 2 800/1000Hz @ 0.25 sec alternating</td>
<td>Tone 17</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 3 500/1200Hz @ 0.3 Hz 0.5 sec slow whoop</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 4 800/1000Hz @ 1Hz sweeping</td>
<td>Tone 6</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 5 2400Hz continuous</td>
<td>Tone 3</td>
<td>Tone 20</td>
</tr>
<tr>
<td>Tone 6 2400/2900Hz @ 7Hz sweeping</td>
<td>Tone 7</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 7 2400/2900Hz @ 1Hz sweeping</td>
<td>Tone 10</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 8 500/1200/500Hz @ 0.3Hz sweeping</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 9 1200/500Hz @ 1Hz - DIN/PFEER P.T.A.P</td>
<td>Tone 15</td>
<td>Tone 2</td>
</tr>
<tr>
<td>Tone 10 2400/2900Hz @ 2Hz alternating</td>
<td>Tone 7</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 11 1000Hz @ 1Hz intermittent</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 12 800/1000Hz @ 0.875Hz alternating</td>
<td>Tone 4</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 13 2400Hz @ 1Hz intermittent</td>
<td>Tone 15</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 14 800Hz 0.25 sec on, 1 sec off intermittent</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 15 800Hz continuous</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 16 660Hz 150mS on, 150mS off intermittent</td>
<td>Tone 18</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 17 544Hz (100mS) / 44Hz (400mS) - NF S 32-001</td>
<td>Tone 2</td>
<td>Tone 27</td>
</tr>
<tr>
<td>Tone 18 660Hz 1.8 sec on, 1.8 sec off intermittent</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 19 1.4Hz - 1.8Hz 1s, 1.5Hz - 1.4Hz 0.5s - NFC48-265</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 20 660Hz continuous</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 21 554Hz / 44Hz @ 1Hz alternating</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 22 544Hz @ 0.875 sec. intermittent</td>
<td>Tone 2</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 23 800Hz @ 2Hz intermittent</td>
<td>Tone 6</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 24 800 / 1000Hz @ 50Hz sweeping</td>
<td>Tone 29</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 25 2400 / 2900Hz @ 50Hz sweeping</td>
<td>Tone 29</td>
<td>Tone 5</td>
</tr>
<tr>
<td>Tone 26 Bell</td>
<td>Tone 2</td>
<td>Tone 15</td>
</tr>
</tbody>
</table>

Dimensions
### Configuration continued

<table>
<thead>
<tr>
<th>Tone</th>
<th>Description</th>
<th>Tone</th>
<th>Description</th>
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<tbody>
<tr>
<td>27</td>
<td>Tone 27 554Hz continuous</td>
<td>28</td>
<td>Tone 28 440Hz continuous</td>
</tr>
<tr>
<td>29</td>
<td>Tone 29 800 / 1500Hz @ 7Hz sweeping</td>
<td>30</td>
<td>Tone 30 300Hz continuous</td>
</tr>
<tr>
<td>31</td>
<td>Tone 31 600 / 1200Hz @ 1Hz sweeping</td>
<td>32</td>
<td>Tone 32 Two tone chime</td>
</tr>
<tr>
<td>33</td>
<td>Tone 33 75Hz @ 1Hz intermittent</td>
<td>34</td>
<td>Tone 34 1000 &amp; 2000Hz @ 0.5 sec alternating - Singapore</td>
</tr>
<tr>
<td>35</td>
<td>Tone 35 420Hz @ 0.625 sec Australian alert</td>
<td>36</td>
<td>Tone 36 500 - 1200Hz 3.75 sec / 0.25 sec. Australian evac.</td>
</tr>
<tr>
<td>37</td>
<td>Tone 37 1000Hz continuous - PFEER toxic gas</td>
<td>38</td>
<td>Tone 38 2000Hz continuous</td>
</tr>
<tr>
<td>39</td>
<td>Tone 39 800Hz 0.25 sec on, 1 sec off intermittent</td>
<td>40</td>
<td>Tone 40 544Hz (100mS) / 440Hz (400mS) - NF S 32-001</td>
</tr>
<tr>
<td>41</td>
<td>Tone 41 Motor Siren - slow rise to 1200Hz</td>
<td>42</td>
<td>Tone 42 Motor Siren - slow rise to 800Hz</td>
</tr>
<tr>
<td>43</td>
<td>Tone 43 1200Hz continuous</td>
<td>44</td>
<td>Tone 44 Motor Siren - slow rise to 2400Hz</td>
</tr>
<tr>
<td>45</td>
<td>Tone 45 1KHz 1s on, 1s off intermittent - PFEER Gen. alarm</td>
<td>46</td>
<td>Tone 46 1200 / 500Hz @ 1Hz - DIN / PFEER P.T.A.P</td>
</tr>
<tr>
<td>47</td>
<td>Tone 47 1KHz 1s on, 1s off intermittent - PFEER Gen. alarm</td>
<td>48</td>
<td>Tone 48 420Hz @ 0.625 sec Australian alert</td>
</tr>
<tr>
<td>49</td>
<td>Tone 49 500 - 1200Hz 3.75 sec / 0.25 sec. Australian evac.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Wiring

Ex ia Audible Alarms

![Simplified block diagram](image)

Volume Control

Tone Generator

Tone Selection Switches

$S_2$, $S_3$
Ex ia Audible Alarms

Wiring continued

1. **Single stage alarm using single channel barrier**
   - Hazardous Area
     - IS-mA1 Sounder
   - Safe Area
     - 28V 93mA Positive
     - On/Off Power Supply

2. **Single stage alarm using two channel barrier**
   - Hazardous Area
     - IS-mA1 Sounder
   - Safe Area
     - 28V 93mA Positive
     - On/Off Power Supply

3. **Multi stage alarm using Zener barriers**
   - Hazardous Area
     - IS-mA1 Sounder
   - Safe Area
     - 28V 93mA Positive
     - On/Off Power Supply

4. **Single stage alarm using Galvanic Isolator**
   - Hazardous Area
     - IS-mA1 Sounder
   - Safe Area
     - Galvanic Isolator
     - Power

5. **Multi stage alarm using Galvanic Isolated Relays**
   - Hazardous Area
     - IS-mA1 Sounder
   - Safe Area
     - Galvanic Isolated Relay
     - Power
An ATEX certified intrinsically safe beacon which will produce a visual warning in a hazardous area. The beacon can be set internally for a flash rate of either 1Hz or 2Hz. Red or Amber output models are available.

**Features**
- II 1G Ex ia IIC T4 (-40°C<=Ta<=+60°C)
- Rated for Zone 0,1 & 2, gas group IIC
- ABS flame retardent UL94V0 & 5VA housings
- Colour: Red RAL3000
- Ingress Protection: IP65
- Terminals accept 0.5 to 2.5mm² cables
- Operating temperature: -40 to +60°C
- Storage temperature: -40 to +70°C
- Relative humidity: 90% at 50°C
- Installation: May be powered from any certified Zener barrier whose output parameters do not exceed: Uo: 28VDC Io: 93mA Po: 660mW or from any galvanic isolator specified by the system certificates
- 2 x M20 knockouts
- Array of 6 high intensity L.E.D’s
- Red and amber colours available
- Prismatic lens optimises L.E.D effectiveness
- 2 flash modes: Double flash @ 2Hz and 1Hz
- Voltage: 16-28vdc via Zener barrier or galvanic isolator
- End of line resistor certified
- Input overload and reverse current protection
- Current: 25mA typical when powered from 24v supply via 28v 5000ohm Zener barrier

**Dimensions**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø</td>
<td>88.70</td>
</tr>
<tr>
<td>H</td>
<td>85.00</td>
</tr>
</tbody>
</table>

**Wiring**

- Using a single channel barrier
- Single stage alarm using a two channel barrier
- Basic circuit for use with a galvanic isolator
An ATEX certified intrinsically safe combined sounder/beacon unit which produces both a loud audio warning and a visual warning and can be installed in a hazardous area. The sounder section has forty-nine first stage alarm sounds that can be selected by internal switches and each one can be externally changed to a second or third stage alarm sound. The beacon section can be set internally for a flash rate of either 1Hz or 2Hz. The combined unit sounder and beacon can be operated simultaneously from one barrier or from separate barriers if independent operation is required. The unit can be used in all gas groups IIA IIB and IIC.

Combinations of the above IS audible and visual alarms are available in a compact combined housing.

### Features
- All the features of the IS audible and visual alarms in a compact combined housing
- Only one Zener barrier or galvanic isolator required to run both sounder and beacon
- Current: 48mA typical when powered from 24v supply via 28v 300Ohm Zener barrier

### Dimensions

<table>
<thead>
<tr>
<th>Hazardous Area</th>
<th>Safe Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS-mC1Sounder</td>
<td>IS-mC1Sounder</td>
</tr>
<tr>
<td>IS-mC1Beacon</td>
<td>IS-mC1Beacon</td>
</tr>
<tr>
<td>28V 93mA Positive</td>
<td>28V 1.2W Positive</td>
</tr>
<tr>
<td>0V</td>
<td>0V</td>
</tr>
<tr>
<td>M20 Cable Entry</td>
<td>M20 Cable Entry</td>
</tr>
</tbody>
</table>

Combined Unit wired for simultaneous operation using one Zener barrier

Combined Unit wired for independent operation using separate Zener barriers

Combined Unit wired for simultaneous operation using one isolator
## Ordering Information

### Part Numbering Key

<table>
<thead>
<tr>
<th>HA</th>
<th>N</th>
<th>AX</th>
<th>VX</th>
<th>AV</th>
<th>AI</th>
<th>R</th>
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<td>AI</td>
<td>R</td>
<td>A</td>
</tr>
</tbody>
</table>

Example: HAHAVAADR = Honeywell Analytics, hazardous area, audible and visual alarm, ATEX Ex d approved, with a red lens.

### Hazardous Area (Ex d) Audible Alarms (DC)

**HAHAXAD**

- 24Vdc hazardous area ATEX Ex d indoor/outdoor use audible alarm with red housing. Nominal output 110dB(A) @ 1m (adjustable), 32 alarm tones and 2xM20 gland entries
- Type Number: BExS110024DC

### Hazardous Area (Ex d) Visual Alarms (DC)

**HAHVXAD**

- 24Vdc hazardous area ATEX Ex d indoor/outdoor use visual alarm with red housing and red lens. 5 Joule output xenon strobe, 2xM20 gland entries
- Type Number: BExBG05D24DC-RD

**HAHVXADA**

- 24Vdc hazardous area ATEX Ex d indoor/outdoor use visual alarm with red housing and amber lens. 5 Joule output xenon strobe, 2xM20 gland entries
- Type Number: BExBG05D24DC-AM

### Hazardous Area (Ex d) Audible & Visual Alarms (DC)

**HAHAVAADR**

- 24Vdc hazardous area ATEX Ex d indoor/outdoor use audible and visual alarm with red housing and red lens. 5 Joule output xenon strobe, audible alarm with nominal output 110dB(A) @ 1m (adjustable), 32 alarm tones 2xM20 gland entries
- Type Number: BExS11005D24DC-RD

**HAHAVAADA**

- 24Vdc hazardous area ATEX Ex d indoor/outdoor use audible and visual alarm with red housing and red lens. 5 Joule output xenon strobe, audible alarm with nominal output 110dB(A) @ 1m (adjustable), 32 alarm tones 2xM20 gland entries.
- Type Number: BExS11005D24DC-AM

### Hazardous Area (Ex ia) Audible Alarms (DC)

**HAHAXAI**

- 24Vdc hazardous area ATEX Ex ia indoor/outdoor use audible alarm with red housing. Nominal output 100dB(A) @ 1m (adjustable), 49 alarm tones and 2xM20 gland entries
- Type Number: IS-MA1-R

### Hazardous Area (Ex ia) Visual Alarms (DC)

**HAHVXAIR**

- 24Vdc hazardous area ATEX Ex ia indoor/outdoor use LED visual alarm with red housing and red lens. 2xM20 gland entries.
- Type Number: IS-MB1-R/R

**HAHVXAEA**

- 24Vdc hazardous area ATEX Ex ia indoor/outdoor use LED visual alarm with red housing and amber lens. 2xM20 gland entries.
- Type Number: IS-MB1-A/R

### Hazardous Area (Ex ia) Combined Audible & Visual Alarms (DC)

**HAHAVAIR**

- 24Vdc hazardous area ATEX Ex ia indoor/outdoor use audible alarm with red housing. Nominal output 105dB(A) @ 1m (adjustable), 49 alarm tones and 1xM20 gland entry and 24Vdc hazardous area ATEX Ex ia indoor/outdoor use LED visual alarm with red housing and red lens. 2xM20 gland entries.
- Type Number: IS-MC1-R/R

**HAHAVAIA**

- 24Vdc hazardous area ATEX Ex ia indoor/outdoor use audible alarm with red housing. Nominal output 105dB(A) @ 1m (adjustable), 49 alarm tones and 1xM20 gland entry and 24Vdc hazardous area ATEX Ex ia indoor/outdoor use LED visual alarm with red housing and Amber lens. 2xM20 gland entries.
- Type Number: IS-MC1-R/A
Our Product Range

Fixed Gas Monitoring

Honeywell Analytics offers a wide range of fixed gas detection solutions for a diverse array of industries and applications including: Commercial properties, industrial applications, semiconductor manufacturers, energy plants and petrochemical sites.

» Detection of flammable, oxygen and toxic gases (including exotics)
» Innovative use of 4 core sensing technologies – paper tape, electrochemical cell, catalytic bead and infrared
» Capability to detect down to Parts Per Billion (ppb) or Percent by Volume (%v/v)
» Cost effective regulatory compliance solutions

Portable Gas Monitoring

When it comes to personal protection from gas hazards, Honeywell Analytics has a wide range of reliable solutions ideally suited for use in confined or enclosed spaces. These include:

» Detection of flammable, oxygen and toxic gases
» Single gas personal monitors – worn by the individual
» Multi-gas portable gas monitors – used for confined space entry and regulatory compliance
» Multi-gas transportable monitors – used for temporary protection of area during site construction and maintenance activities

Technical Services

At Honeywell Analytics, we believe in the value of great service and customer care. Our key commitment is providing complete and total customer satisfaction. Here are just a few of the services we can offer:

» Full technical support
» Expert team on hand to answer questions and queries
» Fully equipped workshops to ensure quick turnaround on repairs
» Comprehensive service engineer network
» Training on product use and maintenance
» Mobile calibration service
» Customised programmes of preventative/corrective maintenance
» Extended warranties on products

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