DETECTION
GAS – WIRELESS GAS – LINEAR HEAT

ALARM
ELECTRONIC SIRENS – MOTORISED SIRENS – AIR HORNS – BEACONS – SOUNDERS

CONTROL
EXPLOSION PROOF – PANEL MOUNT – WALL MOUNT

WIRELESS
ANTENNAS – RF ISOLATOR – SYSTEM CONFIGURATION
<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS76-TX Gas Detector Transmitter</td>
<td>4</td>
</tr>
<tr>
<td>SS76-TX Gas Detector Transmitter Wireless</td>
<td>6</td>
</tr>
<tr>
<td>SS76-TX F-Series Gas Sensor Heads</td>
<td>8</td>
</tr>
<tr>
<td>Digital Linear Heat Detection</td>
<td>10</td>
</tr>
<tr>
<td>S888-LHD/DIM Digital Interface Module</td>
<td>11</td>
</tr>
<tr>
<td>S888-LHD/DLI/2 Digital Location Interface (Monitoring distance 2Km)</td>
<td>12</td>
</tr>
<tr>
<td>S888-LHD/DLI/10 Digital Location Interface (Monitoring distance 10Km)</td>
<td>13</td>
</tr>
<tr>
<td>S888 - X Xenon Beacon</td>
<td>14</td>
</tr>
<tr>
<td>S888-L2 LED Beacon</td>
<td>16</td>
</tr>
<tr>
<td>Ex15VT - Voice Tone Sounder</td>
<td>18</td>
</tr>
<tr>
<td>Motorised Sirens</td>
<td>19</td>
</tr>
<tr>
<td>Electric Siren Systems</td>
<td>20</td>
</tr>
<tr>
<td>S888 CS Electronic Sirens</td>
<td>21</td>
</tr>
<tr>
<td>S888 SB Electronic Sirens</td>
<td>22</td>
</tr>
<tr>
<td>S888 Portable Electronic Siren</td>
<td>23</td>
</tr>
<tr>
<td>S888 All In One Bluetooth Siren</td>
<td>24</td>
</tr>
<tr>
<td>Industrial Drone Siren</td>
<td>25</td>
</tr>
<tr>
<td>Air Horns</td>
<td>26</td>
</tr>
<tr>
<td>Air Horn &amp; Compressor System</td>
<td>27</td>
</tr>
<tr>
<td>S888-ExFGPP 16/64 Explosion Proof Fire and Gas Controller</td>
<td>28</td>
</tr>
<tr>
<td>S888-FGPP 16/64 Fire and Gas Controller</td>
<td>30</td>
</tr>
</tbody>
</table>
TYPE: SS76-TX

CERTIFICATION
ATEX: No. Baseefa1ATEX0116X
IECEX: No. IECEx BAS 11.0055X
Explosion proof and dust protection
II 2 GD Ex d IIC T4 Ta -20˚C to +70˚C Gb
Ex tb IIIC T135˚C Ta-20˚C to +70˚C Db IP6X

SIL 2 Approval version
SIL 2 Approved certificate
C138_CT001 rev.2

Special Applications
Special applications include:
• Relay board substituted by another PC board allowing alternative functions / outputs.
• Alternative customer interface requirements

TECHNICAL SPECIFICATION

DETECTOR INPUTS
Catalytic / Pellistor
Infrared
Electrochemical
Photo Ionisation

ENCLOSURE
Aluminium or Stainless Steel

OUTPUTS
4-20 mA
Optional Relay Board
Optional HART Board

TEMPERATURE
20 ˚C to + 70˚C

WEIGHT
2.3 kg (Aluminium)
3.2 kg (Stainless Steel)

SUPPLY VOLTAGE
8 to 32 VDC

MAXIMUM CURRENT CONSUMPTION
170 mA @ 24 VDC
250 mA @ 24 VDC with Relay Board (all relays energized)

ENTRIES
Detector : 1 x M20 x 1.5P
Cable : 2 x M20 x 1.5P (2 x 3/4” NPT Optional)

DISPLAY
2 line, 16 Character OLED display

CALIBRATION
Non-intrusive magnet calibration

HUMIDITY
0 to 95% RH, non-condensing

INGRESS PROTECTION
IP64 to IP66
Depending on type of water shield fitted to detector head.

OPTIONAL RELAY BOARD
(Required for SIL 2 version)

RELAYS (contact type)
Alarm 1 (normally open)
Alarm 2 (normally open)
Alarm 3 (normally open)
Fault (changeover)

CONTACT RATING (resistive load)
Alarm Relays
5 A, 250 VAC / 30 VDC
Fault Relay
3 A (NC), 5 A (NO), 250 VAC / 30 VDC

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ORDERING INFORMATION

SS76-TX

TRANSMITTER VERSION
Code:
B : Standard
S : SIL 2 Approved

TYPE OF TRANSMITTER BOARD
Code:
CAT: Catalytic / IR board
ECC: Electrochemical board

RELAY BOARD
Code:
0 : Relay board not fitted
1 : Relay board fitted

ENCLOSURE TYPE
Code:
0 : Aluminium
1 : Stainless steel

GAS SENSOR HEAD TYPE
Refer to SS76-TX F-Series Gas Sensor Head datasheet Table 1

EXAMPLE:
SS76-TX-B-CAT-1-0-FLEL1
Transmitter, standard version fitted with catalytic / IR board and relay board in aluminium enclosure.
Gas sensor head type: standard catalytic - FLEL1
**FEATURES**

- IoT compatible (Internet of Things)
- Monitor your Gas Detectors anywhere
- Self Healing Mesh Network or Point to Point configuration

**TECHNICAL SPECIFICATION**

- See SS76-TX for specification of Gas Detector Transmitter
- See SS76-TX – F Series for specification of Gas Sensor Heads
- Individual Radio Boards are located in each gas detector
- Radio Boards are connected to approved antenna via approved isolator
- Radio Boards communicate with one another and transmit data to Wireless Site Controller
- Wireless Site Controller sends data collected from Radio Boards to the Internet via Wi-Fi or Ethernet.
- Each detector becomes part of a self healing mesh network. When a failed Module is detected, messages will automatically be re-routed for continuous, uninterrupted system monitoring.
- Uses SNAP operating system and IEEE 802.15.4 wireless interface. RF data rate up to 2 Mbps in 2.4 GHz band.

**Third Party electronics can be configured in different enclosure with full Ex approval.**

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### SS76-TX Gas Detector Transmitter Wireless

#### TABLE OF ITEMS

1. Transmitter Board  
2. Display Board  
3. Radio Board

---

#### GAS DETECTOR WIRELESS NETWORK

- **Mesh Network**
- **Point to Point**

---

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4S Chestnut Avenue, Wokingham RG41 3HW  
Berkshire, England  
Tel: (44) 1753 474 112  
Fax: (44) 118 977 5261

Seagull Safety (Singapore) Pte Ltd  
1 Genting Link, #07-06 Perfect One  
Singapore 349518  
Tel: (65) 6747 9646  
Fax: (65) 6744 4028
SS76-TX F-Series Gas Sensor Heads

CERTIFICATION
ATEX: No. SIRA 03 ATEX 1176X
IECEEx: No. SIR 06.0016X
Type of protection:
Flameproof and dust protected
II 2 GD
Exd IIC T6 Gb - 20 °C Ta + 35 °C
Extb IIIC T85 °C Db
Exd IIC T5 Gb - 20 °C Ta + 50 °C
Extb IIIC T100 °C Db
Exd IIC T4 Gb - 20 °C Ta + 85 °C
Extb IIIC T135 °C Db
Exd IIC T3 Gb - 20 °C Ta + 120 °C
Extb IIIC T200 °C Db

SENSOR ACCESSORIES
1. Weatherproof cone / calibration cap
2. Calibration gas: Toxic and flammable gases
   Disposable cans / cylinders with
   20, 58 or 105 litres of available gas

TECHNICAL SPECIFICATION
TYPES:
Catalytic / Pellistor
Electrochemical
Infrared
Photo Ionisation
Housing
Stainless steel 316-S16
Weight
170 g
Thread
M20 x 1.5P
Accessory Mounting Thread
M33 x 1.25P
Protection
IP64 with weatherproof cone
Sinter
Removable / replaceable sensor / sinter
Dimensions
Body length 32 mm
Diameter 33 mm

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www.seagullsafety.com
TABLE 1
Range of SS76-TX F-Series Gas Sensor Heads for use with SS76-TX Transmitters

<table>
<thead>
<tr>
<th>Sensor Category</th>
<th>Sensor Head Part No.</th>
<th>Gas Detected</th>
<th>Measurement Range</th>
<th>Remarks</th>
<th>Type of Transmitter Board Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable gases (catalytic)</td>
<td>FLEL1</td>
<td>Hydrocarbons</td>
<td>0 - 100% LEL</td>
<td>2 V / 300 mA (Standard Catalytic)</td>
<td>CAT</td>
</tr>
<tr>
<td></td>
<td>FLEL2</td>
<td>Ammonia, Kerosene, Hydrogen</td>
<td>0 - 100% LEL</td>
<td>2 V / 100 mA</td>
<td>CAT</td>
</tr>
<tr>
<td>Flammable gases (infrared)</td>
<td>FIR1</td>
<td>Hydrocarbons</td>
<td>0 - 100% LEL</td>
<td></td>
<td>CAT</td>
</tr>
<tr>
<td>Oxygen and toxic gases (electrochemical)</td>
<td>FOX</td>
<td>Oxygen</td>
<td>0 - 25% VOL</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FCO</td>
<td>Carbon Monoxide</td>
<td>0 - 250 PPM</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FHS</td>
<td>Hydrogen Sulphide</td>
<td>0 - 50 PPM</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSD</td>
<td>Sulphur Dioxide</td>
<td>0 - 10 PPM</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FND</td>
<td>Nitrogen Dioxide</td>
<td>0 - 10 PPM</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FHY</td>
<td>Hydrogen</td>
<td>0 - 2000 PPM</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FHC</td>
<td>Hydrogen Cyanide</td>
<td>0 - 25 PPM</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FNO</td>
<td>Nitric Oxide</td>
<td>0 - 100 PPM</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FAL</td>
<td>Ammonia</td>
<td>0 - 100 PPM (LOW LEVEL)</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FEO</td>
<td>Ethylene Oxide</td>
<td>0 - 25 PPM</td>
<td>ECC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FAH</td>
<td>Ammonia</td>
<td>0 - 1000 PPM (HIGH LEVEL)</td>
<td>ECC</td>
<td></td>
</tr>
</tbody>
</table>
• Seagull LHD (Linear Heat Detector) is a cable type sensor capable of detecting heat from a fire over its entire length
• Suitable for open area as well as proximity detection.
• Also ideal for confined areas or harsh environments which prohibit the use of other forms of detection
• Compatible with any fire control panel that is capable of accepting contact closure type initiating devices
• Simple and cost effective installation

SEAGULL LHD - DIGITAL
• FM approved with up to 20 feet between parallel runs.
• Two core cable.
• Fixed temperature detection - insulation designed to melt at a specific temperature enabling the two inner cores to short circuit
• Five different alarm temperature cables available.
• Monitoring equipment detects the short circuit and activates its alarm sequence.

Cable Construction
Conductor: Tinned copper covered steel
Insulation: Temperature Sensitive, Thermoplastic or Fluoropolymer
Outer Sheath: PVC, Nylon or Fluoropolymer entire length.

<table>
<thead>
<tr>
<th>Seagull LHD - Digital Cable Type</th>
<th>Material</th>
<th>Max. Ambient Storage Temp.</th>
<th>Min. Operating Temp.</th>
<th>Alarm Temperature</th>
<th>Flame Detection</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type S888-LHD105</td>
<td>Black PVC outer sheath</td>
<td>70°C</td>
<td>-30°C</td>
<td>105°C</td>
<td>12sec (max.)</td>
<td>Excluding areas contaminated by chemical agents</td>
</tr>
<tr>
<td>Type S888-LHD176</td>
<td>Red PVC outer sheath</td>
<td>105°C</td>
<td>-40°C</td>
<td>176°C</td>
<td>20sec (max.)</td>
<td>Excluding areas contaminated by chemical agents</td>
</tr>
<tr>
<td>Type S888-LHD240</td>
<td>White fluoropolymer outer sheath</td>
<td>200°C</td>
<td>-50°C</td>
<td>240°C</td>
<td>20sec (max.)</td>
<td>For high ambient temperatures or protection against chemical agents</td>
</tr>
</tbody>
</table>

SEAGULL LHD DIGITAL
Fixed Temperature Detector

Email: info@seagullsafety.com
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**APPLICATION**

The Digital Interface Module (DIM) monitors the Linear Heat Detection (LHD) cable for both Fire and Fault (open circuit) conditions. By the use of an additional series resistor it can also offer discrimination of a short circuit fault on the interposing field wiring.

With the ability to monitor up to 5000m for both Fire and Fault conditions the DIM enhances any fire detection capability and allows an appropriate action to be taken.

The DIM has volt free relay outputs for Fire and Fault which can be configured for connecting directly into a conventional fire alarm panel or addressable interface module.

As well as having Fire and Fault indicators built in, it has two pairs of outputs for driving remote LED indicators for Fire and Fault.

- Power Generation
- Cable Trays / Tunnels
- Road and Rail Tunnels
- Car Parks
- Conveyors (Bearing) protection
- Storage racks warehouse, Refrigerated rooms and cold stores.
- Petro-chemical storage tanks, rim seal protection
- Motor and pump overheat detection.
- Dirty and dusty environments.
- Building exteriors under eaves

**TECHNICAL SPECIFICATION**

**ELECTRICAL**

- Operating voltage
  - 21 - 30 VDC
- Operating Current
  - Normal 25 mA (Fault relay energised)
  - Fire Alarm (max) 56 mA

**OUTPUTS**

- Fire 2 x VF CO relays, 1.0 Amp 24VDC / 120 VAC
- Fault 1 x VF CO relays, 1.0 Amp 24VDC / 120 VAC
- Remote indicator outputs 4 x 100 mA

**MECHANICAL**

- Dimensions
  - H90 x W71 x D58 mm
APPLICATION

The Digital Location Interface (DLI) monitors the Linear Heat Detection (LHD) cable and when activated identifies the location of the alarm. The distance in meters is then displayed on the 3½ digit LCD, providing detection and location along the complete length of the LHD cable.

With the ability to monitor up to 2000m for both Fire and Fault conditions the DLI enhances any fire detection capability and allows an appropriate action to be taken.

The DLI offers flexible interfacing options, designed as a two wire device for connecting directly into a conventional fire alarm panel, it also has the ability to signal via volt free relay contacts for Fire and Fault, plus a 4-20 mA output representing 0m to 2000m.

The DLI is available as a DIN Rail mountable unit or fitted into an IP 65 weather proof enclosure.

- Power Generation
- Cable Trays / Tunnels
- Road and Rail Tunnels
- Car Parks
- Conveyors (Bearing) protection
- Storage racks warehouse, Refrigerated rooms and cold stores.
- Petro-chemical storage tanks, rim seal protection

TECHNICAL SPECIFICATION

ELECTRICAL

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage</td>
<td>14 - 30 VDC Two wire mode</td>
</tr>
<tr>
<td></td>
<td>20 - 30 VDC Relay mode</td>
</tr>
<tr>
<td>Operating Current</td>
<td></td>
</tr>
<tr>
<td>Normal Quiescent</td>
<td>1.7 mA Two wire mode</td>
</tr>
<tr>
<td></td>
<td>11.5 mA Relay mode</td>
</tr>
<tr>
<td>Fire Alarm (max)</td>
<td>12 mA Two wire mode</td>
</tr>
<tr>
<td></td>
<td>29 mA Relay mode</td>
</tr>
<tr>
<td>Fault Condition</td>
<td>700 uA</td>
</tr>
<tr>
<td>OUTPUTS</td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>2 x VFCO relays, 1 amp</td>
</tr>
<tr>
<td></td>
<td>24 VDC / 120 VAC Resistive</td>
</tr>
<tr>
<td>Fault</td>
<td>2 x VFCO relays, 1 amp</td>
</tr>
<tr>
<td></td>
<td>24 VDC / 120 VAC Resistive</td>
</tr>
<tr>
<td></td>
<td>4 - 20 mA signal loop output</td>
</tr>
<tr>
<td>LCD</td>
<td>3½ Digit (Accuracy ±1 digit, Tolerance ±3%)</td>
</tr>
<tr>
<td>Input</td>
<td>Remote Reset</td>
</tr>
<tr>
<td>Maximum Length of LHD</td>
<td>2,000m</td>
</tr>
</tbody>
</table>

MECHANICAL

- Dimensions: H105 x W86 x D58 mm (DIN Rail version)
- H200 x W164 x D116 mm (Polystyrene enclosure)
- Cable Entries: 4 x M20, 1 x M25 Top
- 4 x M20, 1 x M25 Bottom
- 2 x M20 each side.

- Detection & display of Alarm location for the complete length of LHD cable from 0m to 1,999m
- 3½ Digit LCD
- LED Fire and Fault indicators
- Fire and Fault Test Functions
- Suitable for monitoring hazardous area applications using safety barriers
- DIN Rail mounted or IP 65 Housing available
- Volt free relay outputs for Fire and Fault
- 4 - 20mA output
- Configurable for 2 wire mode
- Remote reset input
S888-LHD/DLI/10 Digital Location Interface (Monitoring distance 10Km)

APPLICATION
The Digital Location Interface (DLI) monitors the Linear Heat Detection (LHD) cable and when activated identifies the location of the alarm. The distance in meters is then displayed on the 4 digit LCD. Providing detection and location along the complete length of the LHD cable.

With the ability to monitor up to 10,000m for both Fire and Fault conditions the DLI enhances any fire detection capability and allows an appropriate action to be taken.

The DLI offers flexible interfacing options, designed as a two wire device for connecting directly into a conventional fire alarm panel, it also has the ability to signal via volt free relay contacts for Fire and Fault, plus a 4-20 mA output representing 0m to 10,000m.

The DLI is available as a DIN Rail mountable unit or fitted into an IP 65 weather proof enclosure.

- Detection & display of Alarm location for the complete length of LHD cable from 0m to 9,999m
- 4 Digit LCD
- LED Fire and Fault indicators
- Fire and Fault Test Functions
- Suitable for monitoring hazardous area applications using safety barriers
- DIN Rail mounted or IP 65 Housing available
- Volt free relay outputs for Fire and Fault
- 4 - 20mA output
- Configurable for 2 wire mode
- Remote reset input

TECHNICAL SPECIFICATION

ELECTRICAL
- Operating voltage
  - 14 - 30 VDC Two wire mode
  - 20 - 30 VDC Relay mode
- Operating Current
  - Normal Quiescent
    - 1.7 mA Two wire mode
    - 11.5 mA Relay mode
  - Fire Alarm (max)
    - 12 mA Two wire mode
    - 29 mA Relay mode
- Fault Condition
  - 700 uA

OUTPUTS
- Fire
  - 2 x VFCO relays, 1 amp
  - 24 VDC / 120 VAC Resistive
- Fault
  - 2 x VFCO relays, 1 amp
  - 24 VDC / 120 VAC Resistive
- 4 - 20 mA signal loop output
- LCD
  - 4 Digit (Accuracy ±1 digit, Tolerance ±3%)
- Input
  - Remote reset
- Maximum Length of LHD
  - 10,000m

MECHANICAL
- Dimensions
  - H105 x W86 x D58 mm (DIN Rail version)
  - H200 x W164 x D116 mm (Polystyrene enclosure)
- Cable Entries
  - 4 x M20, 1 x M25 Top
  - 4 x M20, 1 x M25 Bottom
  - 2 x M20 each side.
S888 - X Xenon Beacon

- Explosion proof
- Zone 1 and Zone 2
- 5, 11, 21 Joule
- 316 Stainless Steel
- IP66
- Weight 3.75kg
- High energy xenon strobe beacon
- Repetitive Dual Flash (DH) and Single Flash (SH) models.
- Long-life xenon tube - typically >20,000,000 flashes
- 24Vdc, 115Vac and 230Vac Voltages
- Option available to allow multiple units to be flashed in synchronism
- Choice of five lens colours

Large format beacon featuring stainless steel body with well glass. Coloured versions supplied with ribbed dome cap whilst ‘clear’ model supplied without for maximum possible light transmission. Two threaded M20 entries are provided as standard; others can be supplied to special order.

CERTIFICATION : ATEX & IECEx

ATEX: ExVeritas 15 ATEX0094
IECEx: IECEx ExV 15.0010

COMPLIES WITH FOLLOWING STANDARDS:
**S888 - X Xenon Beacon**

**Explosion proof Xenon Beacon**

**Stainless Steel - 5, 11 & 21 Joule**

<table>
<thead>
<tr>
<th>Voltage + 15%</th>
<th>5 Joule</th>
<th>11 Joule</th>
<th>21 Joule</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-100Vdc Auto Range</td>
<td>115Vac</td>
<td>230Vac</td>
<td>24Vdc</td>
</tr>
<tr>
<td>Current Consumption</td>
<td>7W</td>
<td>80mA</td>
<td>40mA</td>
</tr>
<tr>
<td>Luminous Intensity</td>
<td>- Clear</td>
<td>100cd</td>
<td>220cd</td>
</tr>
<tr>
<td>- Red</td>
<td>20cd</td>
<td>44cd</td>
<td>124cd</td>
</tr>
<tr>
<td>- Amber</td>
<td>60cd</td>
<td>132cd</td>
<td>310cd</td>
</tr>
<tr>
<td>- Green</td>
<td>60cd</td>
<td>132cd</td>
<td>310cd</td>
</tr>
<tr>
<td>- Blue</td>
<td>20cd</td>
<td>44cd</td>
<td>103cd</td>
</tr>
<tr>
<td>Flash Event</td>
<td>Single Hit</td>
<td>Double or Single Hit</td>
<td>Single Hit</td>
</tr>
<tr>
<td>Flash Rate</td>
<td>60 / min</td>
<td>30, 45, 60, 90 / min</td>
<td>60 / min</td>
</tr>
<tr>
<td>Synchronisation</td>
<td>Multiple units can be flashed in synchronisation</td>
<td>Multiple units can be flashed in synchronisation</td>
<td>Multiple units can be flashed in synchronisation</td>
</tr>
</tbody>
</table>

**ORDERING INFORMATION**

EXAMPLE: S888- X/21/24/S/R/1/2 -20-AC

Xenon Beacon, 21 Joules, 24DC, Single Flash, Red Lens, Lens Guard, 2 x M20 Entries on faces A & C

* STANDARD CABLE ENTRY ARRANGEMENT
1 x 20 mm FACE A
1 x 20 mm FACE C

FOR OTHER CABLE ENTRY ARRANGEMENTS, PLEASE CONTACT SEAGULL SAFETY FOR QUOTATION.

---

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www.seagullsafety.com
SEAGULL SAFETY

S888-L2 LED Beacon

Explosion Proof LED Beacon Stainless Steel

- Explosion Proof
- 316 Stainless Steel
- 12-55 VDC and universal 115-230 VAC versions
- White High Power LED Signal
- Choice of Eight Pulsed or Static LED Signals
- Choice of Six Lens Colours
- IP66
- Weight 3.75kg

CERTIFICATION: ATEX & IECEx

ATEX: ExVeritas 15 ATEX0094
IECEx: IECEx ExV 15.0010

COMPLIES WITH FOLLOWING STANDARDS:

LUMINOUS INTENSITY: S888 – L2

<table>
<thead>
<tr>
<th>Colour</th>
<th>White LED’s With Coloured Lens</th>
<th>Coloured LED’s With Clear Lens</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>2.4 cd</td>
<td>10 – 15 cd</td>
</tr>
<tr>
<td>AMBER</td>
<td>8.6 cd</td>
<td>10 – 15 cd</td>
</tr>
<tr>
<td>YELLOW</td>
<td>8.6 cd</td>
<td>10 – 15 cd</td>
</tr>
<tr>
<td>GREEN</td>
<td>6.8 cd</td>
<td>10 – 15 cd</td>
</tr>
<tr>
<td>BLUE</td>
<td>2.7 cd</td>
<td>10 – 15 cd</td>
</tr>
<tr>
<td>CLEAR</td>
<td>15 cd</td>
<td>15 cd</td>
</tr>
</tbody>
</table>
### S888-L2 DC

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Iavg (mA)</th>
<th>Ipk (mA)</th>
<th>Watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>12VDC</td>
<td>108</td>
<td>190</td>
<td>1.29</td>
</tr>
<tr>
<td>24VDC</td>
<td>96</td>
<td>284</td>
<td>2.31</td>
</tr>
<tr>
<td>55VDC</td>
<td>45</td>
<td>83</td>
<td>2.45</td>
</tr>
</tbody>
</table>

### S888-L2 AC

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Irms (mA)</th>
<th>Watts</th>
<th>VA</th>
<th>PF</th>
<th>Ipk (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>115VAC</td>
<td>37</td>
<td>1.84</td>
<td>4.24</td>
<td>0.43</td>
<td>261</td>
</tr>
<tr>
<td>230VAC</td>
<td>22</td>
<td>2.02</td>
<td>5.12</td>
<td>0.39</td>
<td>218</td>
</tr>
</tbody>
</table>

### Ordering Information

<table>
<thead>
<tr>
<th>Code</th>
<th>12–55VDC - DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>98–264VAC - AC</td>
</tr>
</tbody>
</table>

**Example:** S888 – L2/DC/R/1/2 – 20-AC
- LED Beacon, 12–55 VDC, Red Lens, Lens Guard, 2 x M20 entries on faces A & C

### Cable Entries

- Standard Cable Entry Arrangement
  - 1 x 20 mm FACE A
  - 1 x 20 mm FACE C

Other Cable Entry Arrangements May Result In Increased Prices & Longer Delivery Times. More Details Available On Request.
Ex15VT - Voice Tone Sounder

- Choice of 64 tones
  - 50 standard
  - 14 customised
- Plug-in card for recorded voice / sound reproduction
- Recording user programmable with any tone
- Synchronised sounds

TECHNICAL SPECIFICATION

MATERIAL
- Body - Injection Moulded Aluminium
  - DS 4261 equal to LM6
- Brackets & Fixings - Stainless Steel

FINISH
- Aluminium - Hard Anodised
  (Paint - Polyester Fire Red - RAL 3000)

WEIGHT
- 3.0 kg

SOUND OUTPUT
- 107dB - 118dB SPL
- 3dB Volume Control

ENVIRONMENT
- Temperature Range -25°C to 55°C
- Ingress Protection IP67

POWER
- Voice & Tone
- Voltage 16V - 36V DC
- Current Consumption - 400mA (Average) @ 24V

APPROVAL CERTIFICATION
- Approval Authority NEMKO (Norway)
- Approval Certification:
  - NEMKO 98 ATEX 104
  - II 2 G
  - Ex d IIB + H2 T6
- Approved For Zone 1 & 2 Use
Motorised Sirens

• Hardwired or radio controlled operation
• Master controller to provide a choice of signals
• Local controller to reduce installation cost
• Explosion proof and industrial versions

<table>
<thead>
<tr>
<th>General Purpose Weatherproof Sirens</th>
<th>GP6</th>
<th>GP10</th>
<th>GP12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage VAC</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Start Current A</td>
<td>33</td>
<td>55</td>
<td>100</td>
</tr>
<tr>
<td>Run Current A</td>
<td>4.5</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>dB @ 1m</td>
<td>135</td>
<td>140</td>
<td>145</td>
</tr>
<tr>
<td>DWG No. SS77100-</td>
<td>05</td>
<td>111</td>
<td>07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flame Proof Sirens (Zone 1 Use)</th>
<th>FP6</th>
<th>FP10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage VAC</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Start Current A</td>
<td>33</td>
<td>55</td>
</tr>
<tr>
<td>Run Current A</td>
<td>4.5</td>
<td>11</td>
</tr>
<tr>
<td>dB @ 1m</td>
<td>135</td>
<td>140</td>
</tr>
<tr>
<td>DWG No. SS77100-</td>
<td>02</td>
<td>112</td>
</tr>
<tr>
<td>Certification</td>
<td>ATEX II 2 G EExd IIC T4</td>
<td></td>
</tr>
</tbody>
</table>

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Electronic Siren Systems

- Refinery warning
- Military mass alerting
- Industrial warning and evacuation
- Civil defence warning systems
- Flood / tsunami warning
- Golf course lightning warning
- Up to 150dB @ 1m
- 127dB @ 30m

<table>
<thead>
<tr>
<th>Model</th>
<th>Decibels @ 30m</th>
</tr>
</thead>
<tbody>
<tr>
<td>S888 CS SIREN</td>
<td>106-127dB</td>
</tr>
<tr>
<td>S888 SB SIREN</td>
<td>100-118dB</td>
</tr>
<tr>
<td>S888 PORTABLE SIREN</td>
<td>98dB</td>
</tr>
<tr>
<td>S888 ALL IN ONE SIREN</td>
<td>98dB</td>
</tr>
<tr>
<td>S888 DRONE SIREN</td>
<td>103dB</td>
</tr>
</tbody>
</table>

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S888 CS Electronic Sirens

- CS High Power Electronic Sirens have been designed for Wide-Area Warning and Notification requirements.
- Modular in Construction and Performance from 106 to 127dB @ 30 meters.
- Suitable for Commercial Applications, Industrial Sites and Nationwide Systems.
- Can emit pre-recorded or Live-voice messages in addition to traditional ‘motor-siren’ tones.
- A variety of interfaces and HMIs are available to customise the system in terms of communication, activation, monitoring and management.

FEATURES

- High Audio Performance - up to 2.5km coverage radius
- Directional and Omni-Directional Horn configurations for optimised performance
- Pre-recorded voice or public address (PA) message capability
- Easy Integration and Activation from 8 programmable digital Inputs & 4 Control Outputs
- Remote Activation from a full range of Control Panels, PC Control Center Interface and Smartphone Apps
- Fault Diagnosis and Silent Test/Report capability
- Battery powered siren Operation and Standby. AC power is only required to maintain battery charge
FEATURES

- High Audio Performance - up to 1km coverage radius
- Axial Loudspeakers, Directional and Omni-Directional Horn configurations for optimised performance
- Pre-recorded voice or public address (PA) message capability
- Easy Integration and Activation from 8 programmable digital Inputs & 4 Control Outputs
- Remote Activation from a full range of Control Panels, PC Control Center Interface and Smartphone Apps
- Fault Diagnosis and Silent Test/Report capability
- Battery powered siren Operation and Standby. AC power is only required to maintain battery charge

SB High Power Electronic Sirens have been designed for Wide-Area Warning and Notification requirements.

Modular in Construction and Performance from 100 to 118 dB @ 30 meters.

Suitable for Commercial Applications and Industrial Sites.

Can emit pre-recorded or Live-voice messages in addition to traditional “motor-siren” tones.

A variety of interfaces and HMIs are available to customise the system in terms of communication, activation, monitoring and management.
S888 Portable Electronic Siren

- The portable electronic siren is designed with a main focus on the fast and easy deployment within seconds.
- The uniquely designed aluminum speaker is light and offers wide 360-degree audio coverage over long distances.
- Performance of 98dB at 30 m
- It is supplied with a voltage of 12V using the power socket of a vehicle. Battery pack supply is also provided as an option.
- Its fast and easy deployment renders it ideal for use on Police Cars, Firetrucks, Civil Defense Vehicles, for Mass evacuations over large areas which do not avail permanent installation of Early Warning Systems.

FEATURES

- Patented, 360° Sound Dispersion Speaker with High Audio Performance - up to 500m coverage radius
- Magnetic base with rubber covered Neodymium magnets for fast and easy installation.
- Weatherproof Enclosure.
- 2 Line LCD Screen
- i-Button key
- 4 alarm tones (volume controlled)
- 2 stored messages (volume controlled)
- Public Address (PA) capability from Handheld Microphone.
- Bluetooth Connectivity
- Fault Detection
- Micro SD Card
- Web Based Configuration via Ethernet port
**FEATURES**

- **All-in-One™ Electronic Siren** is designed with a main focus on the fast deployment and activation within seconds.
- Bluetooth connection with a smartphone device allows Control and Activation via Android/iOS Application.
- The uniquely designed aluminum speaker is light and offers wide 360-degree audio coverage over long distances.
- Performance of **98dB at 30 m**.
- It is supplied with a 24V LiFePo4 Battery providing up to 2 Hours of Activation Time and more than 2000 cycles of life.
- Its fast and easy deployment makes it ideal for use on Police Cars, Firetrucks, Civil Defense Vehicles, for Mass evacuations over large areas which do not avail permanent installation of early warning systems.

- High Audio Performance - up to 1km coverage radius
- Axial Loudspeakers, Directional and Omni-Directional Horn configurations for optimised performance
- Pre-recorded voice or public address (PA) message capability
- Easy Integration and Activation from 8 programmable digital Inputs & 4 Control Outputs
- Remote Activation from a full range of Control Panels, PC Control Center Interface and Smartphone Apps
- Fault Diagnosis and Silent Test/Report capability
- Battery powered siren Operation and Standby. AC power is only required to maintain battery charge
The Industrial Drone Siren is an innovative Electronic Siren performing 103dB at 30 meters height, utilizing a flying drone.

- A ready to fly (RTF) solution using professional DJI Aircraft M600 Pro suitable for industrial applications.
- Can be easily deployed, take-off and land, without expensive poles, cabling and structures.
- Autonomous Take-off, Flight-path and Landing using Ground Station Pro Application.
- At least 15 minutes of flight even in harsh environments. (max flight time 20 mins)
- Available also as auxiliary equipment for UAVs with payload of at least 4.2kg.
- Suitable for direct alarm and notification on industrial facilities, fire & security, civil defense, public security and crowd control.

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Air Horns

- Air horns only need compressed air for operation
- Air horns can be used in hazardous areas
- Safe area air compressors can be provided

<table>
<thead>
<tr>
<th>Air Horn</th>
<th>Part No.</th>
<th>Frequency (Hz)</th>
<th>dB@1 Metre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S888-660/125</td>
<td>660</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>S888-387/125</td>
<td>387</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>S888-307/125</td>
<td>307</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>S888-370/132</td>
<td>370</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>S888-370/120</td>
<td>370</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>S888-315/134</td>
<td>315</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>S888-315/124</td>
<td>315</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>S888-200/145</td>
<td>200</td>
<td>145</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Triple Unit</th>
<th>Part No.</th>
<th>Frequency (Hz)</th>
<th>dB@1 Metre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S888-024/120</td>
<td>300/320/340</td>
<td>148</td>
</tr>
</tbody>
</table>
Air horn alarm systems are a low cost option for a very loud alarm, giving a penetrating tone of 350Hz coded as necessary. There are many options that can be added, but the basic system has the air horn giving 143dB @ 1m, suitably located, with a back up air supply compressor and a manual initiation lever valve.

Normal systems can contain 1-3 air horns as required.

COMPRESSOR
- Suitably sized to give adequate capacity for alarm duration required.
- Automatic topping up of air pressure before and during alarm.

ALARM VALVE
- Lever valve allowing manual alarm initiation.
- This can also be used for testing air horns by opening a minimal amount as required.

SOLENOID VALVE
- Activation by electrical remote push button.

MOBILE PHONE INITIATION
- We can provide systems whereby a standard mobile phone can initiate an alarm from a dedicated mobile phone number.
FEATURES

- Up To 64 Nos. Addressable Gas Detectors
- Up To 16 Nos. 4-20mA Gas Detectors
- Up To 12 Nos. 4-20mA Gas Detectors and 4 Nos. Fire Detection Inputs
- Relays For Voltage Free Contact Outputs
- Full System Status Shown On 4 Line Lcd Display

Control of pressurised offshore service module
To DNVGL Standard 2.7-2, Feb 2016.

INPUTS:
• 2 X Pressure Detection
• 2 X Fire Detection
• 3 X Gas Detection

OUTPUTS:
• 6 X V/F contacts to offshore installation (system status)
• 4 X control signals to module (required system logic and timing provided in control software)

TECHNICAL SPECIFICATION

INPUTS
- 1-64 addressable – CANbus
- 1-16 direct 4-20mA inputs

MEASUREMENTS
- Combustible Gas - L.E.L., % vol
- Toxic Gas - ppm, % vol
- Oxygen - % vol - Depletion /Enrichment
- Refrigerant - ppm
- Any 4-20mA transmitter

DISPLAY
- Dot matrix LCD 4 line 40 character - indicating sensor location, gas type, alarm status, system fault, sensor line fault, sensor fault, inhibit, real time clock, event memory

OUTPUTS
- Up to 2 x 8 way Relay Cards
- Event log
- 2 x Modbus - RS485
- 2 x CANbus

AUDIBLE ALARM
- Alarm/Fault - with mute

POWER
- 110/230 VAC or 24 VDC

MISCELLANEOUS
- Enclosure cable entry - bottom, top
- Reset and Mute push buttons on front panel
- Purge Start and Fan Stop push buttons on front panel for DNVGL 2.7-2 version
- Repeater panel option
- Password protection - user mode/engineers mode
- LCD and LED dimming

ENVIRONMENT
- IP rating: IP66
- Operating temperature: -20° C to +60° C

DIMENSIONS
- 460 (W) x 340 (H) x 300 (D) mm

CERTIFICATION
- ATEX CERTIFICATION: IMQ 11 ATEX 031X
- IECEx CERTIFICATION: IECEx IMQ 14.0010X
- Ex II 2G Ex dB IIB + H2 T6 Gb
- Ex II 2D Ex tb IIIC T85° C Db
- IP66, Ta -20°C to + 60°C
APPLICATION
The S888-FGPP gas alarm has been designed to operate in the full range of environments from commercial premises through to heavy industrial applications which may require hazardous area sensing. Typical monitor locations are - public buildings, car parks, tunnels, breweries, boiler plant rooms, water treatment works, H&V control, manufacturing, process plants, horticulture, hotels, offices.

Operation
Each gas sensor continuously monitors the atmosphere reporting any hazardous conditions to the control unit for display by the alpha numeric screen indicating the reporting sensor, gas type, concentration and alarm status. Alarm levels that are exceeded will automatically activate a variety of signal outputs including analogue/digital data and user selectable relays.

The system operates on a 4-core (addressable) or 2/3 core (direct) cable network and has the capacity to monitor up to 64 addressable and 16 direct sensors 8 of which may be converted to accept mV catalytic sensors.

Larger systems offering unlimited sensors can be achieved using multiple S888-FGPP units housed in a 19” rack based system or a network controller. The S888-FGPP is supplied ready to use with pre-calibrated gas sensors and provides for additional sensors that can be easily added to any point of the network.

Optional software allows full data logging facilities with system management providing real time views showing sensor locations, alarms status and actual gas values.

SENSOR POINTS
- 1-64 addressable – CANbus – and/or
- 16 direct 4-20mA

MEASUREMENTS
- Combustible Gas - L.E.L., % vol
- Toxic Gas - ppm, % vol
- Oxygen - % vol - Depletion/Enrichment
- Refrigerant - ppm
- Any 4-20mA transmitter

INDICATORS - CONTROL UNIT CONCENTRATION
- Dot matrix LCD 4 line 40 character - indicating sensor location, gas type, (rising or falling alarms), alarm status, real time clock, event memory
- Red LED - global alarm,
- Amber LED - global fault,
- Amber LED-inhibit

OUTPUTS
- 8 user selectable zone/voting – with NE/ND option and delay to de-energise
- Relay contacts - 2 D.P.C.O / 6 S.P.C.O. rated @ 5A-230v AC
- Factory set
  1 common low alarm D.P.C.O or group 1
  1 common high alarm D.P.C.O or group 2
  1 common overrange S.P.C.O or group 3
  1 common fault alarm S.P.C.O or group 4
  4 user selectable S.P.C.O groups 5 to 8
- General alarm relay - resetable S.P.C.O. for sounders etc.
- Optional - 2 x 32 relays - first 16 programmable with pattern/event with NE/ND options and delay to de-energise - 48 are single event
- Optional - remote addressable 4 way relay unit
- RS232 data log - event log
- Modbus - RS485 x2
- Data logging /management tool - option.
- Individual sensor logging - intervals 1-60 mins storage readings 2880
S888-FGPP 16/64 Fire and Gas Controller

AUDIBLE ALARM
- Alarm/Fault - permanent mute option

POWER
- 230/115v AC or 24v DC ±15%
  Control unit 7.5w quiescent 17w full alarm
  Sensor - 1.25w
- Internal power supply: 20 sensors max. 21+ sensors -
  11A/24vDC Auxiliary Power Pack required

SENSOR CABLE - ADDRESSABLE DIRECT
- Main network - 4 core (2 power - 2 comms)
- 2/3 core (1.5mm2 screened max length 1km)
- Optional signal booster per additional 1km

MISCELLANEOUS
- Enclosure cable entry - bottom, rear, top
- Remote reset/mute

OPTIONS
- Repeater panel
- 1-8 plug in catalytic cards
- 16 way mV catalytic converter
- 8 way 4-20mA input CAN signal converter
- 8 way 4-20mA output module
- 4 way alarm relay module
- 8 way alarm relay module
- 2 x 32 way alarm relay panel
- Sensor signal booster 1K+
- Password protection - user mode/engineers mode
- LCD and LED dimming

ENVIRONMENTAL
- Control unit - IP52 - wall mount
- Optional overhousing - IP65
- Operating temperature: -10 to +50˚C

DIMENSIONS
- 315W x 265H x 95D - wall mount panel
- 19” x 3U x 300mm Deep - rack panel
- 295W 120H x 80D DIN rail module
- 315W x 265H x 95D - Auxiliary power pack

System Configuration

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