



► Model ES Series

# Hazardous Area Sounders and Powered Loudspeakers

Federal Signal's Model ES Series Sounders and Powered Loudspeakers are designed for rugged industrial applications where ATEX certification is required. The ES Series is comprised of two separate products that serve a variety of applications. First is a sounder that includes fifteen standard tones with a common power input that accepts an AC or DC power source. Once power is applied, a single tone may be selected through the use of a remote contact input, or all fifteen tones may be accessed independently by providing a binary string of information, specific to each tone. This allows a certain sound to match a specific alarm condition.

The second version of the ES Series is a powered loudspeaker. Once an AC or DC power source is applied, the powered loudspeaker is capable of amplifying a low-level audio signal, and reproducing it at 8, 15 or 25 watts, depending on the model selected. ES Series powered loudspeakers are the perfect option for ECHO Intercom systems, where ATEX approval is required.

Mounting is provided by a stainless-steel ratcheted mounting bracket that locks the sounder in position at a specific angle without slipping. The bottom surface of the mounting bracket also contains three mounting holes, to adapt to a variety of surfaces.

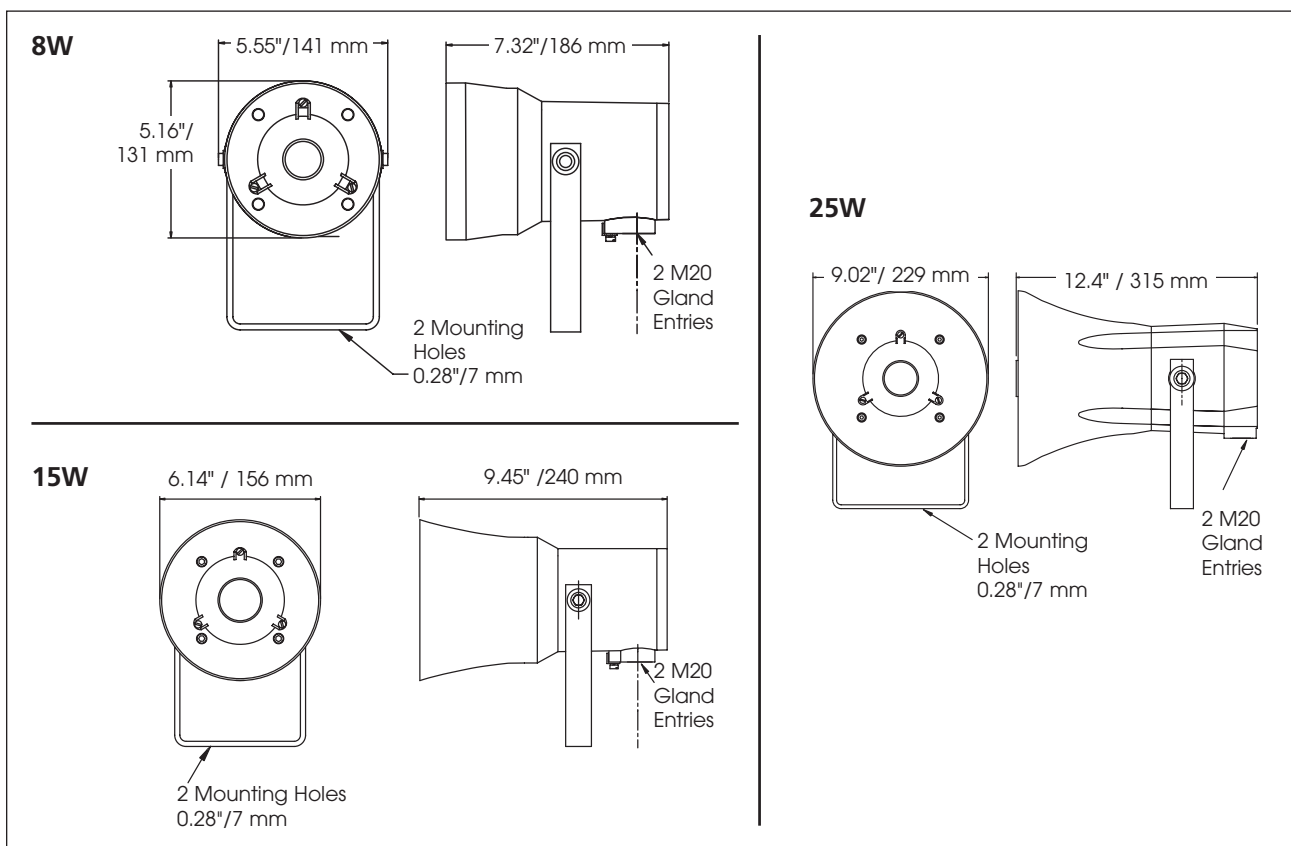
The ES Series is rated for IP66/67 through the use of a neoprene "O" ring seal. All exterior cast aluminum surfaces are finished in red powder coat paint and external hardware is manufactured from stainless steel to resist corrosion.

## FEATURES

- 8 watt, 104 dBa @ 1m
- 15 watt, 107 dBa @ 1m
- 25 watt, 116 dBa @ 1m
- Remote tone selection
- Dual cable entries
- 15 tones on-board sounder
- Integrated DC and AC voltages
- Short horn version (8W)
- Approved for Zone 1 IIB and IIC
- Watertight to IP66/IP67 enclosure
- ES4-120 and ES5-120 versions are IECEx, INMETRO and EAC only
- ATEX, IEXCx, and CE Rated

| MODEL               | TYPE                | VOLTAGE             | OPERATING CURRENT     | EQUIVALENT POWER |
|---------------------|---------------------|---------------------|-----------------------|------------------|
| <b>ES1-114-7MT</b>  | Sounder             | 24VDC/120VAC/240VAC | 950 mA/210 mA/ 125 mA | 8 watt IIB       |
| <b>ES1-114-2MT</b>  | Sounder             | 24VDC/120VAC/240VAC | 950 mA/210 mA/ 125 mA | 8 watt IIC       |
| <b>ES1-112-7MT</b>  | Sounder             | 24VDC/120VAC/240VAC | 950 mA/210 mA/ 125 mA | 15 watt IIB      |
| <b>ES1-112-2MT</b>  | Sounder             | 24VDC/120VAC/240VAC | 950 mA/210 mA/ 125 mA | 15 watt IIC      |
| <b>ES4-120-7MT</b>  | Sounder             | 24VDC/120VAC/240VAC | 950 mA/210 mA/ 125 mA | 25 watt IIB      |
| <b>ES1-114-74</b>   | Powered Loudspeaker | 24VDC/120VAC/240VAC | 500 mA/125 mA/90 mA   | 8 watt IIB       |
| <b>ES1-114-24</b>   | Powered Loudspeaker | 24VDC/120VAC/240VAC | 500 mA/125 mA/90 mA   | 8 watt IIC       |
| <b>ES1-112-74</b>   | Powered Loudspeaker | 24VDC/120VAC/240VAC | 500 mA/125 mA/90 mA   | 15 watt IIB      |
| <b>ES1-112-24</b>   | Powered Loudspeaker | 24VDC/120VAC/240VAC | 500 mA/125 mA/90 mA   | 15 watt IIC      |
| <b>ES5-120-73EB</b> | Powered Loudspeaker | 24VDC               | 1200 mA               | 25 watt IIB      |
| <b>ES5-120-73EL</b> | Powered Loudspeaker | 120VAC              | 400 mA                | 25 watt IIB      |
| <b>ES5-120-73EM</b> | Powered Loudspeaker | 240VAC              | 210 mA                | 25 watt IIB      |

## Hazardous Area Sounders and Powered Loudspeakers (ES)



### S P E C I F I C A T I O N S

Operating Voltages: 24VDC, 110/120VAC, 220/240VAC  
 Factory Default Setting: 240VAC  
 Type: 8/15 watt dual entry, 25 watt dual entry  
 Material: Aluminum Alloy LM6 (marine grade)  
 Color: Signal red 537 to BS381C (epoxy powder coated semi-gloss)  
 Mounting: Stainless steel bracket (not painted)  
 Output:  
 8W Short Horn Series IIB 104 dBa @ 1m (1kHz)  
 8W Short Horn Series IIC 100 dBa @ 1m (1kHz)  
 15W Series IIB 107 dBa @ 1m (1kHz)  
 15W Series IIC 103 dBa @ 1m (1kHz)  
 25W Series 116 dBa @ 1m (1kHz)  
 Cable Entries (bottom): 2 x M20 (Supplied with 1 x EEx stopping plug)  
 Operating Temperature Range: -20°C to +40°C (T6)  
 -20°C to +55°C (T5)  
 -20°C to +70°C (T4)  
 Termination: For 1.5mm<sup>2</sup> conductors

Net Weight:  
 8W 7.1 lbs 3.2kg  
 15W 9 lbs 4.1kg  
 25W 14.1 lbs 6.4kg

Shipping Dimensions:  
 11 x 11 x 11 in<sup>1</sup>  
 12.13 x 11.19 x 13.56 in<sup>2</sup>

Certificate Number<sup>1</sup>:  
 Baseefa03ATEX0688X, II 2 G EExd IIB T4...T6  
 Baseefa03ATEX0689X, II 2 G EExd IIC T4...T6

Ingress Protection<sup>1</sup>: IP67  
 Ingress Protection<sup>2</sup>: IP66 and IP67

Certificate Number<sup>2</sup>:  
 Nemko 05ATEX1036, II 2 G EExd IIB T4...T6

<sup>1</sup> 8W/15W

<sup>2</sup> 25W

Notes: Audio input user selectable.  
 Available inputs are 0.8V, 1.5V and 2.7V.

### H O W T O O R D E R

Contact factory for assistance

#B50000779 Rev. A0