



CERTIFICATE NUMBER  
EFFECTIVE DATE  
EXPIRY DATE  
ABS TECHNICAL OFFICE

22-2292839-PDA  
13-Sep-2022  
12-Sep-2027  
Houston ESD - Electrical

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

### **FEDERAL SIGNAL CORPORATION**

located at

**2645 Federal Signal Drive, , University Park, IL, United States, 60466**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product:** Alarm Sounding and Light Devices  
**Model:** Global Series G-SPK, G-SPA, G-SND, G-LED, G-STR  
**Endorsements:**  
**Tier:** 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 12/Sep/2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

*Soheni Haque*

Soheni Haque, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

## FEDERAL SIGNAL CORPORATION

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**Product:** Alarm Sounding and Light Devices  
**Model:** Global Series G-SPK, G-SPA, G-SND, G-LED, G-STR  
**Endorsements:**

### Intended Service:

Marine and Offshore Applications - Use for audible & visual, single & multi-signaling alarm

### Description:

Global Series cover modular audible & visual devices including Model G-SPK Loudspeaker, G-SPA Amplified Speaker, G-SND Sounder, G-LED Beacon & G-STR Strobe. One model can be combined with other models in several configurations to create multi-signaling alarm.

G-SPK Loudspeaker utilizes non-metallic housing construction. The speaker is available as 15 watt device designed to accept an audio input of either 70 Vrms or 100 Vrms (model-specific).

G-SPA Amplified Speaker is designed for public address and general alarm applications and is capable of amplifying audio-level signals from either 0.8, 2.8, or 25 Vrms systems and reproducing it at 15 watt levels.

G-SND Sounder is designed to perform two separate functions. A single tone can be selected and sounded. Alternatively, multiple tones can be selected by choosing the appropriate combination of inputs. This allows a unique sound to match a specific alarm condition or to be used to escalate an alarm condition.

G-LED Beacon features a LED with the ability to select one of eight (8) flash patterns and offers two lens options (low or high-profile). The housing is made from GRP (Glass Reinforced Polyester).

G-STR Strobe consists of 15 joule or 21 joule strobe with a high-intensity xenon tube. The housing is made from non-metallic materials.

### Rating:

G-SPK Loudspeaker: 70 Vrms/160 mA, 100 Vrms/110 mA  
96 dB(A) (3 m (10 ft) from source), 106 dB(A) (1 m (3.3 ft) from source)

G-SPA Amplified Speaker: 24 Vdc/370 mA; 110 Vac/60 mA, 240 Vac/40 mA, 50/60 Hz  
96 dB(A) (3 m (10 ft) from source), 106 dB(A) (1 m (3.3 ft) from source)

G-SND Sounder: 24 Vdc/460 mA; 110 Vac/140 mA, 240 Vac/80 mA, 50/60 Hz  
98 dB(A) (3 m (10 ft) from source), 108 dB(A) (1 m (3.3 ft) from source)

G-LED Beacon: 24 Vdc/300 mA; 110-240 Vac/120-70 mA, 50/60 Hz  
Light Output - 140 cd (High Profile)/175 cd (Low Profile), Flash Rate - 60 FPM

G-STR Strobe: 24 Vdc/830 mA (15 J)/1500 mA (21 J);  
110 Vac/330 mA (15 J)/450 (21 J), 220-240 Vac/190 mA (15 J)/340 mA (21 J), 50/60 Hz  
Light Output - 300 cd (15 J)/500 cd (21 J), Flash Rate - 60 FPM (15 J)/60 FPM (21 J)

### All Models:

Operating Temperature: -55°C to 70°C (-67°F to 158°F)

Degree of ingress protection (Enclosure): IP66, NEMA Type 4X

Certified by competent, independent testing laboratories for use in hazardous area. Refer to Federal Signal Data Sheets attached for the details.

### Service Restriction:

1) Unit Certification is not required for this product.

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2) If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

#### Comments:

- 1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 2) Installation in hazardous area is to be verified in accordance with Marine Vessels Rules 4-8-3/13, 4-8-4/27 and Mobile Offshore Units Rules 4-3-3/9 as well as Equipment Marking/Special Condition of Use listed in the valid Ex-certification issued by a competent, independent testing laboratory.
- 3) The cable entry devices, thread adapters and stopping plugs provided for the subject alarm devices shall meet the related requirements specified in the valid Ex-certification.
- 4) Red light beacons and strobes are only to be used for fire alarms.
- 5) The sound pressure level for the sounder is to be at least 10 dB(A) above ambient noise level in accordance with Marine Vessels Rules 4-7-3/11.5.1 (i) and 4-8-2/11.7.1(g)(h).
- 6) The sound pressure level for the speaker is to be at least 20 dB(A) above the corresponding speech interference level in accordance with Marine Vessels Rules 4-8-2/11.8.1 iii).
- 7) Accessories and cables for the subject alarm devices are not covered by this PDA certificate.

#### Notes/Drawing/Documentation:

Drawing No.850000296 SCHEDULE ASSEMBLY GLOBAL SERIES IEC MODULAR VISUAL STROBE Rev. A9  
Drawing No.850000297 SCHEDULE ASSEMBLY CLOGAL SERIES IEC MODULAR VISUAL LED, Rev. A7  
Drawing No.850000298 SCHEDULE ASSEMBLY GLOBAL SERIES IEC MODULAR AUD. DEVICE Rev. A8  
Drawing No.850000299 SCHEDULE SUB-ASSY, STROBE VISUAL CAP, GLOBAL SERIES, IEC MOD.  
PLATFORM, Rev. A4  
Drawing No.850000300 SCHEDULE SUB-ASSY, LED VISUAL CAP, GLOBAL SERIES, IEC MOD.  
PLATFORM, Rev. A3  
Drawing No.850000301 SCHEDULE ASSEMBLY, GLOBAL SERIES IEC MODULAR, Rev. A7  
Drawing No.850000302 SCHEDULE ASSEMBLY, GLOBAL SERIES IEC MODULAR ARRAY  
CONFIGURATIONS, Rev. A3  
Drawing No.850000305 SCHEDULE DWG NAMEPLATE MODULAR VISUAL STR. GLOBAL SERIES Rev.A5  
Drawing No.850000306 SCHEDULE DWG, NAMEPLATE, MODULAR VISUAL LED, GLOBAL SERIES Rev.A5  
Drawing No.850000307 SCHEDULE DWG, NAMEPLATE, MODULAR AUDIBLE SOUNDER, GLOBAL  
SERIES, Rev. A5  
Drawing No.850000308 SCHEDULE DWG, NAMEPLATE, MODULAR AUDIBLE AMP, SPKR, GLOBLAL  
SERIES, Rev. A5  
Drawing No.850000309 SCHEDULE DWG, NAMEPLATE, MODULAR AUD. LOUDSPEAKER, GLOBAL  
SERIES, Rev. A7  
Drawing No.850000310 SCHEDULE SUB-ASSY, AUDIBLE CAP, IEC MODULAR, GLOBAL SERIES, Rev. A4  
Drawing No.850000311 SCHEDULE DWG, LED LIGHT HEAD, IEC MODULAR GLOBAL SERIES, Rev. A0  
Drawing No.850000571A SCHEDULE SUB-ASSY, GLOBAL SERIES COUPLER FLANGE, BASE MODULE TO  
EBOX OPTION, Rev. A0  
Drawing No.850000767 MODEL G-LED GLOBAL SERIES HAZARDOUS LOCATION LED, Rev. A0  
Drawing No.850000769 MODEL G-SND GLOBAL SERIES HAZARDOUS LOCATION SOUNDER, Rev. A0  
Drawing No.850000771 MODEL G-SPA GLOBAL SERIES HAZARDOUS LOCATION AMP. SPEAKER Rev. A0  
Drawing No.850000770 MODEL G-SPK GLOBAL SERIES HAZARDOUS LOCATION LOUDSPEAKER Rev.A0  
Drawing No.850000785 MODEL G-STR GLOBAL SERIES HAZARDOUS LOCATION STROBE, Rev. A0  
11 ATEX Q134762, PRODUCTION QUALITY ASSURANCE NOTIFCATION, Rev. 5  
Baseefa15ATEX0153X, EU-TYPE EXAMINATION CERTIFICATE, Issue 3  
Baseefa15ATEX0154X, EU-TYPE EXAMINATION CERTIFICATE, Issue 4  
Baseefa15ATEX0155X, EU-TYPE EXAMINATION CERTIFICATE, Issue 5  
IECEX BAS 15.0102X, IECEX CERTIFICATE OF CONFORMITY, Issue No: 3  
IECEX BAS 15.0103X, IECEX CERTIFICATE OF CONFORMITY, Issue No: 4  
IECEX BAS 15.0104X, IECEX CERTIFICATE OF CONFORMITY, Issue No: 5  
US/UL/QAR06.0012/10, IECEX QUALITY ASSESSMENT REPORT SUMMARY, Date of issue: 2020-03-23, Valid  
until: 2023-03-31

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CERT-08514-2006-AQ-HOU-ANAB, FEDERAL SIGNAL MANAGEMENT SYSTEM CERTIFICATE, Valid: 23 December, 2020 - 22 December, 2023

#### **Terms of Validity:**

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#### **STANDARDS**

##### **ABS Rules:**

2022 Rules for Conditions of Classification, Part 1, 1-1-4/7.7, 1-1-A3, 1-1-A4, which cover the following:

2022 Marine Vessel Rules: 4-7-3/11.5.1 (i), 4-8-2/11.7.1 (g)(h), 4-8-3/1.3, 4-8-3/1.7, 4-8-3/1.11, 4-8-3/1.17, 4-8-3/Table 2, 4-8-3/13, 4-8-4/27, 4-9-2/7.3

2022 Rules for Conditions of Classification, Part 1 - Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which cover the following:

2022 Mobile Offshore Unit Rules: 4-3-1/11, 4-3-1/15, 4-3-1/17, 4-3-2/15.9.2, 4-3-3/Table 1, 4-3-3/9

##### **National:**

NA

##### **International:**

NA

##### **Government:**

NA

##### **EUMED:**

NA

##### **OTHERS:**

NA