

EU-TYPE EXAMINATION CERTIFICATE



Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

EU-Type Examination Certificate Number: **UL 22 ATEX 2889X Rev. 0**

Product: **GEN-IIB; GEN-IIB-ISMT; GEN-IIC; and GEN-IIC-ISMT Modular Audible Non-Metallic Loudspeakers**

Manufacturer: **Federal Signal Corp.**

Address: **2645 Federal Signal Dr., University Park, IL, 60484 USA**

This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. **US/UL/ExTR22.0096/00.**

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-1: 2014

EN 60079-31:2014

If the sign "X" is placed after the certificate number, it indicates that the product is subject to special conditions for safe use specified in the schedule to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

The marking of the product shall include the following:

II 2 G **Ex db IIB+H2 T4 Gb or Ex db IIC T4 Gb**
 II 2 D **Ex tb IIIC T135°C Db**

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2022-12-29

Notified Body

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Schedule
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Description of Product

The GEN-IIB/GEN-IIC and GEN-IIB-ISMT/GEN-IIC-ISMT non-metallic Loudspeakers are 25W max, 100VAC line powered loudspeakers with several user-selectable audio power levels.

The GEN-IIB and GEN-IIB-ISMT are rated for gas group IIB+H2 and comprises of a flameproof housing along with a transformer and terminal block mounted to a PCB. The PCB on the ISMT model has a low powered circuit for remote tapping and monitoring.

The GEN-IIC and GEN-IIC-ISMT are rated for gas group IIC and comprises of a flameproof housing along with a transformer and terminal block mounted to a PCB. The PCB on the ISMT model has a low powered circuit for remote tapping and monitoring.

The loudspeakers dimensions are approximately 232mm in height and 347mm in length. Mounting is achieved by a stainless steel ratcheted mounting bracket that locks the loudspeaker in position at a specific angle without slipping.

Connection for field wiring is provided by two M20 x 1.5 mm threaded openings in the main speaker housing, and terminated via internal terminal blocks. The housing is rated IP66.

Nomenclature for equipment:

- GEN-IIB and GEN-IIB-ISMT :
 - o Ex db IIB+H2 T4 Gb
 - o Ex tb IIIC T135°C Db
- GEN-IIC and GEN-IIC-ISMT :
 - o Ex db IIC T4 Gb
 - o Ex tb IIIC T135°C Db

Performance testing

N/A

Temperature range

The ambient temperature range is -50°C to 65°C.

Electrical data

Voltage: 100 V AC

Current: 0.25 A

Power: 25 W

Routine tests

Routine pressure test empty enclosure at 185 psi (12.8 bar) for 10s minimum, 60s maximum without rupture in accordance with EN60079-1:2014. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection.

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Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

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Specific conditions of use:

- The equipment has a metallic mounting bracket that can store electrical charge and may provide a potential electrostatic charging hazard. The metallic mounting bracket has a capacitance of 11 pF.
- Potential electrostatic charging hazard. See installation instructions for guidance on minimizing risk of electrostatic discharge.
- Do not repair flameproof joints.
- Replacement cover screws are not standard fasteners. They must be sourced from the equipment manufacturer only.
- If the equipment contains an unused entry hole after installation, use only suitable ATEX/IECEx certified Ex 'tb' (IP66) and Ex 'db' (IIC gas) rated components to seal the entry hole before operating. The manufacturer recommends EATON/REDAPT, Part # PD-U Series stopping plugs.

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Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The equipment has in addition passed the tests for Ingress Protection to IP66 in accordance with EN IEC 60079-0:2018 and EN60529:1991+A1:2000+A2:2013.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.