

EU - TYPE EXAMINATION CERTIFICATE

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

EU - Type Examination Certificate **Baseefa10ATEX0096X – Issue 3**
Number:

In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

Product: **PAGASYS Loudspeaker**

Manufacturer: **Federal Signal Corporation**

Address: **2645 Federal Signal Drive, University Park, Illinois, 60484, USA**

This re-issued certificate extends EC Type Examination Certificate No. Baseefa10ATEX0096X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

SGS Baseefa, Notified Body number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the 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. See Certificate History

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

EN 60079-0:2009 EN 60079-1:2007 EN 60079-7:2007 EN 60079-18:2004 EN 60079-31:2008

except in respect of those requirements listed at item 18 of the Schedule.

If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of 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 this certificate.

The marking of the product shall include the following :

 **See Schedule**

SGS Baseefa Customer Reference No. **5121**

Project File No. **18/0442**

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SGS Baseefa Limited

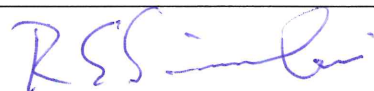
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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

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Schedule

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Certificate Number Baseefa10ATEX0096X – Issue 3

15 Description of Product

The PAGASYS Loudspeaker is available in 4 types:

Models P-LS2B and P-LS2C are 100Vrms line powered loudspeakers with several user-selectable audio power levels from 0.2W to 25W.

Models P-LS2B-8 and P-LS2C-8 are 8Ω loudspeakers.

The P-LS2B and P-LS2C models comprise of a flameproof speaker driver unit, encapsulated into a horn housing along with a transformer and transient protection PCB. The exposed surface of the encapsulation is located within a terminal enclosure at the rear of the assembly. Also located in the terminal enclosure is a replaceable encapsulated fuse assembly and user screw terminals for external and power selection connections.

The P-LS2B-8 and P-LS2C-8 models comprise of a flameproof speaker driver unit, encapsulated into a horn housing. The exposed surface of the encapsulation is located within a terminal enclosure at the rear of the assembly. Also located in the terminal enclosure are user screw terminals for external connections.

The PAGASYS loudspeaker is approximately 320mm in length and 230mm in diameter.

User connections enter the terminal enclosure via suitably certified cable glands and terminate on the screw terminals provided.

The flameproof speaker driver unit has been separately assessed as Ex d in GB/BAS/ExTR09.0245/00. The encapsulation of the transient protection PCB and fuse assembly meet the requirements of Ex mb. The terminal enclosure and transformer meet the requirements of Ex e. The screw terminals are separately certified Ex e terminals.

Models P-LS2B and P-LS2C have a Rated Voltage of: 100Vrms @ 1kHz

Models P-LS2B-8 and P-LS2C-8 have a Rated Voltage of: 14.1Vrms @ 1kHz

The marking of the equipment shall include the following :

Model P-LS2B

⊕ II 2G

Ex d e mb IIB + H2 T5 Gb (-50°C ≤ Ta ≤ +70°C)
T6 Gb (-50°C ≤ Ta ≤ +55°C)

Model P-LS2C

⊕ II 2GD

Ex d e mb IIC T5 Gb Ex tb IIIC IP66 T100°C Db (-50°C ≤ Ta ≤ +70°C)
T6 Gb Ex tb IIIC IP66 T85°C Db (-50°C ≤ Ta ≤ +55°C)

Model P-LS2B-8

⊕ II 2G

Ex d e mb IIB + H2 T5 Gb (-50°C ≤ Ta ≤ +60°C)
T6 Gb (-50°C ≤ Ta ≤ +45°C)

Model P-LS2C-8

⊕ II 2GD

Ex d e mb IIC T5 Gb Ex tb IIIC IP66 T95°C Db (-50°C ≤ Ta ≤ +60°C)
T6 Gb Ex tb IIIC IP66 T80°C Db (-50°C ≤ Ta ≤ +45°C)

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. Except when shown in a certificate as being internal wiring of apparatus, not more than one single or multiple strand lead shall be connected into either side of any terminal, unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated crimped boot lace ferrule.
2. Leads connected to the terminals shall be insulated for the appropriate voltage and this insulation shall extend to within 1 mm of the metal of the terminal throat.

3. All terminal screws, used and unused, shall be tightened down to between 0.5 Nm and 0.7 Nm.
4. Where the prong of an insulating comb is used in a terminal way, a further single conductor of 1 mm² minimum cross-sectional area may be connected to the same terminal way on top of the prong.
5. The terminals shall never be exposed to temperatures outside of the range -50°C to +130°C. In addition, they shall only be installed and wired with cable in a temperature range of -10°C to +80°C.

18 Essential Health and Safety Requirements

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

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
259288A	1 of 1	6	06/28/2018	Driver Housing Assembly

These drawings are also associated and held with IECEx BAS 10.0052X.

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
259287A	1 of 1	A1	11/03/2017	PAGASYS Loudspeaker General Arrangement
850000065A	1 of 1	A1	11/03/2017	PAGASYS 8 ohm Loudspeaker General Arrangement
850000646A	1 of 1	A0	11/02/2017	Gasket, Molded, P-LS2
259289A	1 of 1	4	2/16/10	Transformer, Audio, 100V, 25W
259290A	1 of 1	3	11/13/09	Fuse Module, Encapsulated
259292A	1 of 1	1	01/22/10	Transformer Assy, Audio, 25W, 100V
259294A	1 of 1	2	10/15/09	Wiring Schematic 100V Loudspeaker
259295A	1 of 1	2	11/09/09	PCBA, Transient Protection
259300A	1 of 1	5	03/19/10	PAGASYS Loudspeaker Encapsulation Procedures
259291A	1 of 1	7	7/16/2012	Certification Labels, PAGASYS Loudspeaker
71400066A	1 of 1	1	7/27/2012	Certification Labels, PAGASYS 8 ohm Speaker
850000056A	1 of 1	1	5/29/2012	Wiring Schematic 8 ohm Loudspeaker

These drawings are also associated and held with IECEx BAS 10.0052X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa10ATEX0096X	4 May 2010	The release of the prime certificate. The associated test and assessment is documented in Test Report Nos. GB/BAS/ExTR10.0088/00 and GB/BAS/ExTR09.0245/00.

Certificate No.	Date	Comments
Baseefa10ATEX0096X Issue 1	17 August 2012	<p>The manufacturer requests two new models to be added, types P-LS2B-8 and P-LS2C-8, which differ from the original types as follows:</p> <ul style="list-style-type: none">- Suppression circuits removed- Transformer removed- Fuse assembly removed <p>The result is an 8Ω loudspeaker using the flameproof speaker driver units, encapsulated into the horn housing.</p> <p>The associated test and assessment is documented in Test Report No. GB/BAS/ExTR12.0206/00.</p> <p>The zip code part of the address has changed.</p>
Baseefa10ATEX0096X Issue 2	7 September 2017	<p>This second issue of the certificate incorporates previously issued primary & issue 1 certificate into one certificate.</p> <p>The manufacturer requests to introduce an alternative Silicone Gasket type SIL 60 Black for the P-LS2B & C Series loud speaker rear cover.</p> <p>The associated tests and assessment is documented in test report number: - GB/BAS/ExTR17.0331/00.</p>
Baseefa10ATEX0096X Issue 3	31 st July 2018	<p>The manufacturer request to remove the electrostatic charge requirement, regarding the external paint thickness, for the internal driver housing assembly.</p> <p>The associated tests and assessment is documented in test report number: - GB/BAS/ExTR18.0177/00.</p>
For drawings applicable to each issue, see original of that issue.		