IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx BAS 10.0052X	issue No.:0	Certificate history:
Status:	**Current**		
Date of Issue:	**2010-04-30**	Page 1 of 3	

Applicant: **Federal Signal Corporation**
2645 Federal Signal Drive
University Park
Illinois 60466-3195
United States of America

Electrical Apparatus: **PAGASYS Loudspeaker**
Optional accessory:

Type of Protection: **Ex d, e, mb, tb**

Marking:
Model P-LS2B:
Ex d e mb IIB + H2 T6 Gb (-50°C ≤ Ta ≤ +55°C)
Ex d e mb IIB + H2 T5 Gb (-50°C < Ta < +70°C)
Model P-LS2C:
Ex d e mb IIC T6 Gb (-50°C ≤ Ta ≤ +55°C)
Ex tb IIIC IP66 T85°C Db (-50°C ≤ Ta ≤ +55°C)
Ex d e mb IIC T5 Gb (-50°C ≤ Ta ≤ +70°C)
Ex tb IIIC IP66 T100°C Db (-50°C ≤ Ta ≤ +70°C)

Approved for issue on behalf of the IECEx Certification Body: R S Sinclair

Position: Managing Director

Signature:
(for printed version)

Date: 4-5-10

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Baseefa
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom

Baseefa

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Date of Issue: **2010-04-30** Issue No.: **0**

Manufacturer: **Federal Signal Corporation**
2645 Federal Signal Drive
University Park
Illinois 60466-3195
United States of America

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2007-10 Edition: 5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-18 : 2009 Edition: 3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/BAS/ExTR09.0245/00
GB/BAS/ExTR10.0088/00

Quality Assessment Report:
US/UL/QAR06.0012/03

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The PAGASYS Loudspeaker is a 100Vrms line powered loudspeaker with several user-selectable audio power levels from 0.2W to 25W.

The equipment comprises 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 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.

Rated Voltage: 100Vrms @ 1kHz

CONDITIONS OF CERTIFICATION: YES as shown below:

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 mm^2 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.