

## (1) EC-TYPE EXAMINATION CERTIFICATE

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 10ATEX0116 X** Issue Number: **1**

(4) Equipment: **Electronic Sounder/Beacon Type WAVS and Sounder/LED Beacon Type WAVS-L**

(5) Manufacturer: **Federal Signal Corporation**

(6) Address: **2645 Federal Signal Drive, University Park, IL 60466, USA**

(7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential test report number 213590500/2.

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

**EN 60079-0 : 2006**

**EN 60079-1 : 2007**

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

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:



**II 2 G Ex d IIB T4**

This certificate is issued on July 2, 2010 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.

T. Pijker  
Certification Manager

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 10ATEX0116 X** Issue No. 1

(15) **Description**

Electronic Sounder/Beacon Type WAVS and Sounder/LED Beacon Type WAVS-L, housed in aluminium enclosures in type of protection flameproof enclosure "d", are used to provide acoustic signals and visual warning signals.

**Electrical data**

Electronic Sounder/Beacon Type WAVS:

Supply voltage	24 Vdc	48 Vdc	115 Vac	230 Vac
Sounder Current [mA]	265	130	110	56
Beacon Current [mA]	300	180	140	55

Sounder/LED Beacon Type WAVS-L:

Supply voltage	24 Vdc	48 Vdc	115 Vac	230 Vac
Sounder Current [mA]	265	130	110	56
Beacon Current [mA]	400	210	135	65

**Installation instructions**

The manual provided with the equipment shall be followed in detail to assure safe operation.

**Marking**

The relation between the combined Sounder/Beacons, the ambient temperature range and the marking is given in the table below.

GAS	
Ambient temp.	-50 °C to +70 °C
WAVS	II 2 G Ex d IIB T4
WAVS-L	II 2 G Ex d IIB T4

(16) **Test Report**

KEMA No. 213590500/2.

(17) **Special conditions for safe use**

In case of repair, contact the manufacturer for information on the dimensions of the flameproof joints.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 213590500/2.