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 NEM 13.0024X	Issue No: 0	Certificate history: Issue No. 0 (2013-12-10)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2013-12-10**		
Applicant:	**Federal Signal Corporation** 2645 Federal Signal Drive, University Park IL 60466-3195 **United States of America**		
Electrical Apparatus:	**Intrinsically Safe Access Panel**		
Optional accessory:			
Type of Protection:	**ib**		
Marking:	Ex ib IIB T4 Gb		

Approved for issue on behalf of the IECEx Certification Body: Bjørn Spongsveen

Position: Certification Manager

Signature:
(for printed version)

Date: 2013-12-10

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:

NEMKO
Gaustadalleen 30
Oslo N-0314
Norway

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Certificate No:	IECEx NEM 13.0024X	Issue No: 0
Date of Issue:	**2013-12-10**	Page 2 of 3
Manufacturer:	**Federal Signal Corporation** 2645 Federal Signal Drive, University Park IL 60466-3195 **United States of America**	
Additional 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 60079-11 : 2006 Edition:5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*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:

NO/NEM/ExTR13.0017/00

Quality Assessment Report:

US/UL/QAR06.0012/05

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The intrinsically safe access panels AP5 and AP6 providing remote audio and alarm initiation, when connected to a main communication and alarm system. Both types of units use a metal enclosure which can be a desk mounting console or a wall mounting box. The pushbuttons, indicators and microphone are fitted to the front panel or lid and connected to the PCBs output terminals are fitted inside the housing.

Type Designations

AP5 and AP6

The function of the AP5 and the AP6 is similar. The AP6 has additional PCB with multiplexing function.

See attached appendix for the intrinsically safe connection data.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. Safety barriers according the installation drawings and with values stated in this certificate shall supply the intrinsically safe circuits of the access board. Ref. installation drawings no. 921058 and 921060 for AP5 and 921055, 921056, 921057. Drawing, 921051 for multi pin connection.

2. The reqirements for the supply cable shall be taken into consideration as specified in the installation drawings and this certificate.

3. Access panel AP5 and AP6 is intended for rack mounting or on desktop and necessary connection (bonding) to earth is assumed to be established when readily mounted.

Annex:

ANNEX TO IECEX Cert 13.0024.pdf

ANNEX to IECEx Certificate of Conformity

IECEx NEM 13.0024X Issue 0

ANNEX to Certificate of Conformity NEM 13.0024X Issue 0.

Data for the Intrinsically Safe Connections

Ref. installation drawings no. 921058 and 921060 for AP5 and 921055, 921056, 921057. Drawing, 921051 for multi pin connection.

AP6

Terminal ident. no.	Connector ident. no.	U_i [V]	I_i [mA]	P_i [W]
1-2-3 (TB211, TB212)	A-C	10	203	0,5
4-5 (TB221, TB222)	AY-BD	12	24	0,072
6-7 (TB219, TB220)	AK-AW	12	24	0,072
8-9 (TB214, TB217)	S-AE	15	150	0,56
10-11 (TB215, TB216)	U-W	12	24	0,072
12 (TB213)	E	12	12	0,036
(TB223, TB224)	BF-BT	7	300	0,04

AP 5 Microphone Connections

Pre.-amp. Board Terminals	U_i [V]	I_i [mA]	P_i [W]
TB2	15	150	0,56
J1 3-4	10	203	0,5

Internal inductance - Li - and capacitance – Ci - of access panel external connections are negligible.

Supply Cables

Permissible cable parameters.
Maximum cable capacitance: C=0,173 µF
Maximum cable inductance: L=1,2mH
Maximum ratio L/R: 82 µH/Ω

Cable shall be in accordance with the requirements of a multicore cable type A or B as specified in IEC 60079-25