



Notified body No. 1134
asbl **ANPI** vzw
Parc Scientifique Fleming - Granbonpré 1
B-1348 Louvain-la-Neuve

CERTIFICATE OF CONSTANCY OF PERFORMANCE

1134 - CPR - 102

In compliance with *Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011* (the products Construction Products Regulation or CPR), this certificate applies to the construction product:

Voice alarm control and indicating equipment

TOA SX-2000

and the details of the composition: see annex 1 of the EC certificate of constancy of performance
with the performances listed in annex 2 of the EC certificate of constancy of performance and
intended use: Fire safety

manufactured by:

TOA ELECTRONICS EUROPE GmbH
Süderstraße 282
DE - 20537 HAMBURG
GERMANY

and produced in the manufacturing plant(s):

ACOUS Corporation
113 Buma,
Maibara-city
Shiga-ken 521-0224
JAPAN

DYNATRON Industrial Co., Ltd
No.89 Din Pin Rd.,
Ray Fong Industrial Area,
Rai Fong District, New Taipei City
TAIWAN

DYNATECH
Fulong 2 Rd, Fulong Industrial,
Shajing Town, BaoAn
Shenzhen 518125
CHINA

This certificate attests that all provisions concerning the assessment and the verification of constancy performance at system 1 being certified and the performances described in Annex ZA of the standard(s):

EN 54-16:2008

are applied and that

the product fulfils to all here above mentioned and prescribed requirements.

This certificate was first issued on **2014-06-30** and remains valid as a long time as the testing methods and/or for the control of the production in factory included in the harmonized standard, used to evaluate the performances of the declared characteristics, do not change and as neither the product, nor the manufacturing conditions in the plant or the factory production control itself are not modified significantly.

Brussels, the 18th of August 2014


Michèle VANDENDOREN
Secretary General



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Annex 1 to CERTIFICATE CONSTANCY OF PERFORMANCE

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The Voice alarm control and indicating equipment TOA SX-2000 includes also the following options with requirements of the EN 54-16:2008

7.5	Phased evacuation
7.7.2	Manual Reset of the voice alarm condition
7.9	Voice alarm condition output
8.4	Indication of faults related to voice alarm zones
12	Emergency microphone(s)
13.14	Redundant power amplifiers

Composition of the Voice alarm control and indicating equipment TOA SX-2000:

Reference	Description	Quantity
SX-2000SM	System manager	1
SX-2100AI	Audio input unit	at least 1
SX-2000AO	Audio output unit (line out)	optional
SX-2100AO	Audio output unit (amplifier drive)	at least 1
SX-2000CI	Control input unit	optional
SX-2000CO	Control output unit	optional
VP-2064 VP-2122 VP-2241 VP-2421 VP-3154 VP-3304 VP-3504	4 channel amplifier, 4x45 W with VX-2000DS, 4x60 W with VX-3000DS 2 channel amplifier, 2x90 W with VX-2000DS, 2x120 W with VX-3000DS 1 channel amplifier, 180 W with VX-2000DS, 240 W with VX-3000DS 1 channel amplifier, 320 W with VX-2000DS, 420 W with VX-3000DS 4 channel amplifier, 4x150 W 4 channel amplifier, 4x300 W 4 channel amplifier, 4x500 W	at least 1 out of these 7
VP-200VX	Amplifier input module	at least 1 for VP-2064, VP-2122, VP-2241 and VP-2421
VP-200VX-BGM	Amplifier input module with BGM input	optional for VP-2064, VP-2122, VP-2241 and VP-2421 (instead of VP-200VX). Included in VP-3154, VP-3304 and VP-3504.
SX-200RM	Remote microphone input module	at least 1
RM-200SF	Fireman's microphone (emergency microphone)	optional
RM-200SA	Desktop remote microphone	at least 1
RM-210	Button expansion for fireman microphone	optional
RM-200RJ	Connection box for fireman microphone	optional
IES-3080 IES-3062GT IES-3062FX-MM IES-3062FX-SS IES-3062GF-MM IES-3062GF-SS	Ethernet switch	at least 1 out of these 6 per 6 SX-2000 units in cabinets adjacent to each other.
Q-SX200EL	End-of-line surveillance module	optional
VX-2000DS	Power manager	at least 1
VX-3000DS	Power manager	
VX-2000PF	Power supply frame for 3 VX-200PS	at least 1 when using VX-2000DS
VX-200PS	Power supply	at least 1 when using VX-2000DS
Panasonic LC-X1265	Battery, 12 V, 65 Ah	2 (for each VX-2000DS)
Panasonic LC-XB12100P	Battery, 12 V, 100 Ah	2 (for each VX-3000DS)
CR-15/22/27/35/40/44	Cabinet rack	
RITTAL TS 8	Cabinet rack	at least 1 of these

At least 1 remote microphone is always present at access level 1

At least 1 emergency microphone or fireman's microphone is always present at access level 2 when option with requirement 7.7.2 and/or 12 is applied.

Brussels, the 18th of August 2014

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Secretary General

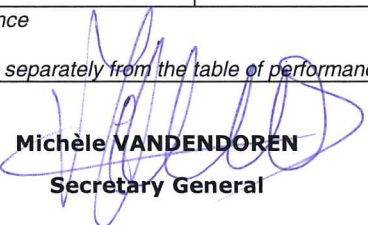


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Annex 2 to CERTIFICATE CONSTANCY OF PERFORMANCE 1134 - CPR – 102

Harmonised technical specification		EN 54-16:2008
Essential Characteristics	Performance ^{1) 2)}	Clause
Performance under fire conditions		
- General requirements	pass	4
- General requirements for indications	pass	5
- The voice alarm condition	pass	7
- Voice alarm manual control	NA	10
- Emergency microphone(s)	pass	12
- Signal-to-noise ratio	pass	16.5
- Frequency response of VACIE without microphone(s)	pass	16.6
- Frequency response of VACIE with microphone(s)	pass	16.7
Response delay (response time to fire)		
- Reception and processing of fire signals	pass	7.1
- Delays to entering the voice alarm condition	NA	7.4
- Output to fire alarm devices	NA	7.8
- Emergency microphone(s)	pass	12
Operational reliability		
- General requirements	pass	4
- General requirements for indications	pass	5
- The quiescent condition	pass	6
- The voice alarm condition	pass	7
- Fault warning condition	pass	8
- Disablement condition	NA	9
- Interface to external control device(s)	NA	11
- Emergency microphone(s)	pass	12
- Design requirements	pass	13
- Additional design requirements for software controlled VACIE	pass	14
Durability of operational reliability, temperature resistance		
- Output power	pass	16.4
- Cold (operational)	pass	16.8
Durability of operational reliability, impact and vibration resistance		
- Impact (operational)	pass	16.11
- Vibration, sinusoidal (operational)	pass	16.12
- Vibration, sinusoidal (endurance)	pass	16.13
Durability of operational reliability, electrical stability		
- Supply voltage variation	pass	16.14
- Electromagnetic compatibility (EMC), immunity tests (operational)	pass	16.15
Durability of operational reliability, humidity resistance		
- Damp heat, steady state (operational)	pass	16.9
- Damp heat, steady state (endurance)	pass	16.10
¹⁾ "NPD" theoretically possible; except for durability of characteristics with declared performance ²⁾ "not applicable" for components to which the requirement does not apply ³⁾ The list of options with requirements is listed in the Certificate of constancy of performance separately from the table of performance		

Brussels, the 18th of August 2014


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 Secretary General