Certification Scheme for

EXPLOSION-PROTECTED ELECTRICAL EQUIPMENT

ANZEx Scheme

Certificate of Conformity

Certificate No.: ANZEX 07.4044X		Issue No.: 0	Date of Issue:	31 August 2007
Certificate Holder:	European Safe Impress Hous Mansell Road London W3 70 UK	ety Systems Limited e Acton QH		
Electrical Apparatus:	IS-mA1AN So Sounder/Beac	under, IS-mB1AN B on.	seacon & IS-mC1	AN Combined
Type of Protection:	Ex ia IICT4 (-4	$0^{\circ}C \le Ta \le +60^{\circ}C)$	IP65	
Marking Code:	Ex ia IICT4 (-4 ANZEx 07.404	0°C <=Ta<= +60°C) 44X		
Manufacturing Location(s):	European Safe Impress Hous Mansell Road London W3 70 UK	ety Systems Limited e Acton QH		

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 ITACS Pty. Ltd.

 ABN 06 098 886 563

 Certificate issued by

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This certificate is granted subject to the conditions as set out in Standards Australia/Standards New Zealand Miscellaneous Publication MP87.

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: Edition 3.1	Electrical equipment for explosive atmospheres- Part 0: General
IEC 60079-11: 4 th Edition	requirements Electrical apparatus for explosive gas atmospheres- Part 11: Intrinsic safety

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:

The equipment listed has successfully met the examination and test requirements as recorded in

Test Report No. and Issuing Body:

SIRA IECEx ExTR (GB/SIR/ExTR06.0103/00) Quality Assessment Report No. and Issuing Body: SIRA IECEx GB/SIRA SIRA Ref 55A/15395

File Reference:

ANZ Ex 07.4044X

Signed for and on behalf of issuing body Certification Authority

31 August 2007

Position

Date of Issue

This certificate and schedule shall not be reproduced except in full This certificate is not transferable and remains the property of the issuing body and must be returned in the event of it being revoked or not renewed.

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Schedule

EQUIPMENT:

The **IS-mA1AN Sounder** is designed to provide an audible warning when activated. It consists of the following mounted in an IP 65, flame retardant, ABS enclosure:

· Sounder printed circuit board assembly

· Inductive sounder transducer

External connections are made to terminals mounted on the sounder printed circuit board via cable entry devices mounted in the wall of the enclosure.

The **IS-mB1AN Beacon** is designed to provide a flashing warning when activated. It consists the following mounted inside an IP 65, flame retardant, ABS enclosure that is fitted with a transparent polycarbonate 'lens':

- · Beacon main printed circuit board assembly
- · Beacon LED printed circuit board assembly

External connections are made to terminals mounted on the beacon main printed circuit board via cable entry devices mounted in the walls of the enclosure.

The **IS-mC1AN Combined Sounder/Beacon** is designed to provide an audible and a flashing warning when activated. It consists of the following mounted inside an IP 65, flame retardant, ABS enclosure that is fitted with a transparent polycarbonate 'lens':

- · Sounder printed circuit board assembly
- · Inductive sounder transducer
- · Beacon main printed circuit board assembly
- · Beacon LED printed circuit board assembly

External connections are made to terminals mounted on the sounder printed circuit board assembly and the beacon main printed circuit board assembly via cable entry devices mounted in the walls of the enclosure. The IS-mC1 Combined Sounder/Beacon may be supplied with internal wiring connections between Sounder Terminals +/- and Beacon Terminals +/-, alternatively these connections may be fitted by the user/installer.

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CONDITIONS OF CERTIFICATION:

IS-mA1AN Sounder

- 1 The equipment has an ingress protection rating of IP65. However, if it has been supplied without cable entry devices, then the user shall ensure that the devices that are fitted will provide an ingress protection that is appropriate to the environment in which it is installed i.e. IP20 or better. If only one of the two cable entries are used, then the unused entry 'knockout' shall be left intact or fitted with a blanking device that ensures ingress protection appropriate to the environment in which it is installed i.e. IP20 or better.
- 2. The total capacitance connected to Terminal + w.r.t. Terminal (i.e. the capacitance of the cable plus any other capacitance) shall not exceed 83nF.
- 3. The equipment shall not be directly installed in any process where its enclosure might be electrostatically charged by the rapid flow of a non-conductive media.
- 4. The equipment shall only be supplied via Terminal + w.r.t. Terminal from a barrier having a maximum open circuit voltage Uo that is ≤ 28V and a maximum short-circuit current Io that is ≤ 93mA, where Io is resistively limited.

Terminals	Parameters						
-	Ui	Ii	P_i	Ci	Li		
Terminal + wrt -	28 V	93 mA	660 mW	Negligible	Negligible		
Terminal S2 & S3 wrt -	28 V	0	-	-	-		

5. The following entity parameters apply to the IS-mA1AN Sounder

IS-mB1AN Beacon

- 1. The equipment has an ingress protection rating of IP65. However, if it has been supplied without cable entry devices, then the user shall ensure that the devices that are fitted will provide an ingress protection that is appropriate to the environment in which it is installed i.e. IP20 or better. If only one of the two cable entries are used, then the unused entry 'knockout' shall be left intact or fitted with a blanking device that ensures ingress protection appropriate to the environment in which it is installed i.e. IP20 or better.
- 2. The equipment shall not be directly installed in any process where its enclosure might be electrostatically charged by the rapid flow of a non-conductive media.

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CONDITIONS OF CERTIFICATION (continued):

3. The following entity parameters apply to the IS-mB1AN Beacon

Terminals	Parameters						
-	Ui	Ii	Pi	Ci	L_i		
Terminal + wrt -	28 V	660 mA	1.2 W	Negligible	Negligible		

IS-mC1AN Combined Sounder/Beacon

- 1. The equipment has an ingress protection rating of IP65. However, if it has been supplied without cable entry devices, then the user shall ensure that the devices that are fitted will provide an ingress protection that is appropriate to the environment in which it is installed i.e. IP20 or better. If only one of the two cable entries are used, then the unused entry 'knockout' shall be left intact or fitted with a blanking device that ensures ingress protection appropriate to the environment in which it is installed i.e. IP20 or better.
- 2. The total capacitance connected to Sounder Terminal + w.r.t. Terminal (i.e. the capacitance of the cable plus any other capacitance) shall not exceed 83nF.
- 3. The equipment shall not be directly installed in any process where its enclosure might be electrostatically charged by the rapid flow of a non-conductive media.
- 4. The equipment shall only be supplied via Sounder Terminal + w.r.t. Sounder Terminal from a barrier having a maximum open circuit voltage Uo that is ≤ 28V and a maximum short-circuit current Io that is ≤ 93mA, where Io is resistively limited.
- 5. If not already fitted, optional internal wiring connections between Sounder Terminals + / and Beacon Terminals + / may be fitted by the user. The wiring used for such connections shall have a minimum radial thickness of insulation of 0.5mm.

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CONDITIONS OF CERTIFICATION (continued):

6. The following entity parameters apply to the IS-mC1AN Combined Sounder/Beacon

	Terminals	Parameters					
	-	Ui	Ii	P _i	C_i	L_i	
Without internal connections	Sounder Terminal "+" wrt Sounder "-"	28 V	93 mA	660mW	Negligible	Negligible	
	Sounder Terminal S2 & S3 wrt Sounder <u>"-</u> "	28 V	0	-	-	-	
	Beacon Terminal + wrt Beacon "-"	28V	660 mA	1.2 W	Negligible	Negligible	
With internal connections	Sounder Terminal "+" wrt Sounder "-"	28 V	93 mA	660mW	Negligible	Negligible	
	Sounder Terminal S2 & S3 wrt Sounder "_"	28 V	. 0	-	-	-	

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Manufacturers Drawings:

Drawing #	Title		Date	
	-		(YYYY/MM/DD)	
CD 5011	IS-mA1 SOUNDER CIRCUIT DIAGRAM	A	2005/05/09	
D 5017	IS-mA1 Sounder Basic Assembly	A	2005/08/01	
PL 5021	IS-mA1 and IS-mC1 Sounder PCB	A	2005/06/03	
D 5021	IS-mA1 and IS-mC1 SOUNDER PCB TRACK AND COMPONENT LAYOUT	A	2005/06/24	
D 5048	IS-mA1AN SOUNDER LABEL (ANZEx)	A	2007/07/06	
D 5019	IS-mC1 Combined Basic Assembly	A	2005/08/01	
D 5050	IS-mA1AN COMBINED LABEL (ANZEx)	A	2007/07/06	
CD 5012	IS-mB1 BEACON CIRCUIT DIAGRAM	A	2005/05/09	
D 5018	IS-mB1 Beacon Basic Assembly	A	2005/06/03	
D 5022	IS-mB1 and IS-mC1 BEACON PCB TRACK AND COMPONENT LAYOUT	A	2005/06/03	
PL 5022	IS-mB1 and IS-mC1 Beacon PCB	A	2005/06/03	
D 5049	IS-mB1AN BEACON LABEL (ANZEx)	A	2007/07/06	
D 4525	IS-A105N SOUNDER TRANSDUCER	A	2004/11/01	

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