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[1] EC TYPE-EXAMINATION CERTIFICATE

[2] Equipment or Protected System Intended for use in Potentially explosive atmospheres Directive 94/9/EC

[3]	EC-Type Examination Certificate Number:	Nemko 07ATEX1129X Issue No.: 1
[4]	Equipment or Protective System:	Communication & Signalling System type PSACS1-A, PSACS1-B
[5]	Applicant / Manufacture:	Austdac Pty Ltd
[6]	Address:	Unit 1/4 Packard Avenue
		Castle Hill NSW 2154
		Australia

- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] Nemko AS, notified body number 0470 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 report no. 139970

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

CENELEC EN 60079-0: 2006, CENELEC EN 60079-11: 2007

- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- [12] The marking of the equipment or protective system shall include the following :

Model PSACS1-A:	$\langle E_{x} \rangle$ I M1	Ex ia I
Model PSACS1-B:	ξx IM1	Ex ib I

Oslo, 2010-03-15

Kolffal

Rolf Hoel Certification Manager, Ex-products

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# [13] Schedule

# [14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 07ATEX1129X Issue 1

## [15] Description of Equipment or Protective System

The system comprises of up to four separate segments for underground and a surface facility. These are all isolated from one another and may be considered as separate intrinsically safe subsystems.

Each powered segment contains its own independent IS certified power supply. The power supplies are installed only in safe area. The system type PSACS1-A uses [Ex ia] certified power supplies. The system type PSACS1-B uses [Ex ib] certified power supplies which are required to be de-energized in case of Zone 0 conditions.

A segment may comprise:

1. Up to forty IS Intercom type ABMA3, ABMA3-1 or ABMA4.

2. Up to forty DTMF Keyboard type AKB1.

3. An Intersystem Coupler type ISC2, if the system has more than one segment. This provides isolation between any two adjacent segments.

4. A Pre-start Alarm System type APSA2 for the initial segment.

- 5. A Coupler type ASCU for the initial segment. This provides isolation between the surface facility and the initial segment.
- 6. A Tail End Unit type TEU100 or TEU2 for the end segment.
- 7. A separately certified IS Power Supply.
- 8. Up to 4500 metres of segment cable.
- The surface facility is composed of:
- 1. A separately certified IS barrier providing isolation between the surface facility and the safe area.
- 2. Up to 10000 metres of surface pair cable.

#### Certificate History and Associated Nemko Reports

Issue	Date	Report	Description
0	2007-05-24	86177	Prime Certificate released
1	2010-03-15	139970	The optional use of tail end unit TEU2.
			A correction of the ATEX code from "1" to "I", "M2" to "M1" and correction of CENELEC
			standards to EN 60079-0:2006 & EN 60079-11:2007 has been done due to typing error in prime
			certificate.

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### [16] Report No. 139970

#### **Descriptive Documents**

Name/Title	Drawing No.	<b>Rev/Issue</b>	Date	Sheets
Communication And Signalling System Type	20-035-19	14	2010/01/27	01 of 01
PSACS1-A Ex ia System Details				
Communication And Signalling System Type	20-035-19	14	2010/01/27	02 of 02
PSACS1-B Ex ib System Details				
Tail End Unit Type TEU2	20-333-08	01	2006-09-14	01 of 01
Tail End Unit Type TEU2 PCB0211A	20-334-03	03	2007-07-13	01 of 02
Tail End Unit Type TEU2 PCB0211A	20-334-03	03	2007-07-13	02 of 02
Tail End Unit Type TEU2 PCB0211 Bill of Material	20-335-14	03	2007-07-13	04
Tail End Unit Type TEU2 PCB0211A	20-336-21	04	2007-03-13	06
Tail End Unit Type TEU2 PCB0211A	20-337-07	03	2007-03-14	02
Tail End Unit Type TEU2 PCB0211	20-338-09	01	2006-09-13	08
Tail End Unit Type TEU2 LABL517	20-339-13	05	2010-03-09	01
Tail End Unit Type TEU2 Bill of Material	20-341-13	03	2007-03-14	02
Tail End Unit Type TEU2 Enclosure cover	20-342-06	03	2007-03-14	01
Tail End Unit Type TEU2 PCB Cover	20-343-06	01	2007-02-22	01
TEU100 Tail End Unit Label drawing	20-012-13	09	2010-03-09	01
Type ABMA3 I.S. Intercom Label details	20-122-13	04	2010-03-09	01
Type ABMA3 I.S. Intercom Label details	20-123-13	04	2010-03-09	01
Type ABMA3-1 I.S. Intercom Label details	20-135-13	13	2010.03.09	01
APSA2 PSA Controller Label details	20-208-13	06	2010-03-09	01
Communication and signalling system type PSACS1-A or PSACS1-B Label details	20-224-13	05	2010-03-09	01
Intersystems coupler type ISC2 enclosure label details	20-226-13	05	2010-03-09	01
Type ABMA4 I.S. intercom graphic detail, label details	20-240-13	11	2010-03-09	04
DTMF Keyboard type AKB1 Label details	20-268-13	05	2010-03-09	01
I.S. intercom type ABMA3 system certification label details	20-271-13	03	2010-03-09	01
Safety coupling unit type ASCU Austdac P/No. BARR007 label details	57-006	08	2010-03-09	01

#### [17] Special Conditions for Safe Use

Previous conditions of certification remain unchanged.

[18] Essential Health and Safety Requirements See item 9

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