



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.: issue No.:

Status:

Date of Issue: **2008-05-28** Page 1 of 3

Applicant: **Pempek Systems Pty Ltd**
3/13 Hoyle Avenue
Castle Hill NSW 2154
Australia

Electrical Apparatus: **LOML UHF Shearer Transmitter**
Optional accessory:

Type of Protection: **Intrinsic Safety ia**

Marking: **Pempek Systems**
LOML UHF Shearer Transmitter
Ex ia I
IECEx TSA 08.0021X
S/N: _____

*Approved for issue on behalf of the IECEx
Certification Body:*

Ujen Singh

Position:

Quality and Certification Manager

Signature:
(for printed version)

Date:

28 MAY 2008

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](http://www.iecex.com).

Certificate issued by:

TestSafe Australia
919 Londonderry Road
Londonderry NSW 2753
Australia





IECEx Certificate of Conformity

Certificate No.: IECEx TSA 08.0021X

Date of Issue: 2008-05-28

Issue No.: 0

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Manufacturer: **Pempek Systems Pty Ltd**
3/13 Hoyle Avenue
Castle Hill NSW 2154
Australia

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 : 2004 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
Edition: 4.0

IEC 60079-11 : 2006 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition: 5

*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:

AUTSA/ExTR07.0023/00

Quality Assessment Report:

AUTSA/QAR06.0015/00



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The L0ML UHF Shearer Transmitter has a UHF transmitter, which transmits control signals initiated by the membrane keypad to the shearer. The unit has a microprocessor controller sampling the membrane keypad. These signals are sent via a self-contained UHF transmitter and antenna. It is powered by a rechargeable battery pack of five NiCd cells and has a four-digit display adjacent to the keypad. It contains an encapsulated battery pack, a UHF transmitter, a micro-controller board, a membrane keypad and an encapsulated display contained in a stainless steel housing.

CONDITIONS OF CERTIFICATION: YES as shown below:

Refer to Annexe of the Certificate.



IECEX Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEX TSA 08.0021X	Issue No.:	0
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Drawing list pertaining to Issue 0 of this Certificate:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
D0ML0100	1	Functional Circuit Description	01	2007/12/10
D0ML0200	1	L0ML UHF Remote Console Overall Dimensions	01	2007/12/07
D0ML0300	1	L0ML UHF Remote Console Inter Connection Diagram	01	2007/12/07
H0ML01	1	L0ML UHF Remote Console Battery Enclosure Assembly	02	2007/12/10
H0ML02	1	L0ML UHF Remote Console Display Mounting Bush	01	2007/12/10
H0ML03	1	L0ML UHF Remote Console Tx Enclosure	01	2007/12/10
M0ML0100	1	L0ML UHF Remote Console Top Cover	04	2007/12/10
M0ML0200	1	L0ML UHF Remote Console Enclosure	01	2007/12/10
M0ML0300	1	L0ML UHF Remote Console Top Cover Stainless Steel	01	2007/12/10
M0ML0500	1	L0ML UHF Remote Console Enclosure Transmitter Shield	02	2007/12/10
M0ML0600	1	L0ML UHF Remote Console Cover Transmitter Shield	01	2007/12/10
M0ML0700	1	L0ML UHF Remote Console Display Housing	01	2007/12/10
M0ML0800	1	L0ML UHF Remote Console Battery Enclosure	01	2007/12/10
M0ML0900	1	L0ML UHF Remote Console MGT. Brackets Battery Enclosure	01	2007/12/10
M0ML1000	1	L0ML UHF Remote Console Bush Connector	01	2007/12/10
M0ML1500	1	L0ML UHF Remote Console M4 x 12mm Insert	01	2007/12/10
M0ML1700	1	L0ML UHF Remote Console Approval Label Blank	01	2007/12/10
M0ML2100	1	L0ML UHF Remote Console Overlay Artwork	01	2007/12/10
M06P1100	1	L0ML UHF Remote Console Antenna Cover	01	2007/12/11
B0KNBA	2	I.S. Battery Pack (<i>Assembly Drawing</i>)	1.3	2004/10/15
B0KNB0	1	PCA I.S. Battery Pack Board (<i>Parts List</i>)	1.3	2007/12/06
B0KNBS	1	I.S. Battery Pack (<i>Schematic</i>)	1.3	2004/10/15
B0KNB1	7	I.S. Battery Pack (<i>PCB Artwork</i>)	1.0	2001/05/03
B0KNDA	2	TITO Display (<i>Assembly Drawing</i>)	2.0	2001/08/10
B0KNDO	1	PCA Display Board (<i>Parts list</i>)	2.0	2007/12/04
B0KNDS	1	TITO Display (<i>Schematic</i>)	2.0	2001/08/10
B0KND1	7	TITO Display (<i>PCB Artwork</i>)	2.0	2001/08/10
B0ML3A	4	Shearer TX Micro (<i>Assembly Drawing</i>)	2.0	2004/03/02
B0ML30	2	Transmitter Micro Board (<i>Parts List</i>)	2.0	2007/11/14
B0ML3S	1	Shearer TX Micro (<i>Schematic</i>)	2.0	2003/10/15
B0ML31	7	Shearer TX Micro (<i>PCB Artwork</i>)	2.0	2003/10/22
B0ML9A	1	Shearer TX Switch BD (<i>Assembly Drawing</i>)	1.0	2003/06/16
B0ML90	1	Transmitter Membrane Switch Board (<i>Parts List</i>)	1.0	2007/11/14
B0ML9S	1	Shearer TX Switch Board (<i>Schematic</i>)	1.0	2003/07/01

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IECEX Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEX TSA 08.0021X	Issue No.:	0
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Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
B0ML91	9	Shearer TX Switch BD (<i>PCB Artwork</i>)	1.0	2003/06/16
B0T19A	2	18 Membrane Switch Board (<i>Assembly Drawing</i>)	1.0	2007/07/24
B0T190	1	Transmitter Membrane Switch Board (SMD) (<i>Parts List</i>)	1.0	2007/11/14
B0T19S	1	18 Membrane Switch Board (<i>Schematic</i>)	1.0	2007/07/24
B0T191	9	18 Membrane Switch Board (<i>PCB Artwork</i>)	1.0	2007/07/24
B06PA0	1	-5dB Antenna Board (<i>Parts List</i>)	1.0	2007/11/14
B06PA1	6	-5dB Antenna (<i>PCB Artwork</i>)	1.0	1996/03/22
B09A6A	2	UHF TX 458/472 FSK 1.2KB (<i>Assembly Drawing</i>)	9.0	2007/08/16
B09A60	2	PCA Transmitter UHF 458 MHz FSK 1.2MB (<i>Parts List</i>)	9.0	2007/11/29
B09A6S	1	UHF TX 458/472 MHz FSK 1.2KB (<i>Schematic</i>)	9.0	2007/01/30
B09A61	7	UHF TX 458/472 FSK 1.2KB (<i>PCB Artwork</i>)	9.0	2007/08/16
E0ML0100	1	L0ML UHF Remote Console Approval Label	03	2007/12/10

Conditions of Certification pertaining to Issue 0 of this Certificate:

1. It is a condition of safe use that the battery must not be charged in the hazardous area.
2. It is a condition of safe use that the charging parameters must be as follow when charging the battery:

INPUT PARAMETERS	Charger Input
Maximum Supply Voltage U_m	12.1 V

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