

Australian/New Zealand
Certification Scheme for

EXPLOSION-PROTECTED ELECTRICAL EQUIPMENT

ANZEx Scheme

Certificate of Conformity
Addendum

Certificate No.: ANZEx 05.4010X	Issue No.: 2	Date of Issue: 12 May 2006
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Certificate Holder: Ampcontrol Pty Ltd.
250 Macquarie Road
Warners Bay, New South Wales 2282

Electrical Apparatus: Dieselguard Diesel Machine Gas Monitor Types E09464, E09465, E09481, E09484, E09485, E09482, E09483, E09486 and E09487


Type of Protection: Ex m, [ia]

Marking Code: Ex m, [ia] I (150°C) IP66 $T_{amb} = -20^{\circ}\text{C}$ to $+70^{\circ}\text{C}$

Manufacturing Location(s): AUSTECH INSTRUMENTS Pty Ltd
8 Ponderosa Parade
Warriewood, New South Wales 2102

The EPEE certification database located at www.sai-global.com shows the validity of this Certificate.

This certificate and schedule shall not be reproduced except in full

 ABN 06 098 886 563	<p>Certificate issued by</p> <p>ITACS Pty. Ltd. 4-6 Second Street SA 5007 Australia PO Box 300 Hindmarsh SA 5007 Australia Phone: +61 8 8346 8680 Fax: +61 8 8346 7072 Email: itacs@itacslab.com</p>	 Accreditation by the Joint Accreditation System of Australia and New Zealand Acc No. Z2870404AA
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*This Certificate Addendum supplements the Original Issue of this Certificate, (Issue 0) and 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:

AS/NZS 60079.0 :2000	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
AS/NZS 60079.11:2000 inc A1	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety i
AS2431-1981	Electrical equipment for explosive atmospheres - Encapsulated apparatus- Type of protection m

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

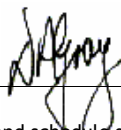
TEST & ASSESSMENT REPORTS:

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

Original Test Report No. and Issuing Body:	TR3177 - ITACS
Test Report Covering this Addendum	TR 3743 - ITACS
Quality Assessment Report No. and Issuing Body, supporting this Addendum:	ANZEx 05.4010X 06-01 ITACS
File Reference:	ANZ Ex 05.4010X

Signed for and on behalf of issuing body

General Manager
Position



12 May 2006
Date of Issue

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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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Variation covered by this Addendum

EQUIPMENT VARIATIONS:

Changes covered by this by Addendum include the following:

1. Minor electrical changes and minor mechanical changes to the main and wireless printed wiring boards.
2. Replacement of the internal battery by an integral cable. Models incorporating this change are:

Dieselguard Diesel Machine Gas Monitor Model E09464EB.
Dieselguard Diesel Machine Gas Monitor Model E09465EB.
Dieselguard Diesel Machine Gas Monitor Model E09481EB.
Dieselguard Diesel Machine Gas Monitor Model E09482EB.
Dieselguard Diesel Machine Gas Monitor Model E09483EB.
Dieselguard Diesel Machine Gas Monitor Model E09484EB.
Dieselguard Diesel Machine Gas Monitor Model E09485EB.
Dieselguard Diesel Machine Gas Monitor Model E09486EB.
Dieselguard Diesel Machine Gas Monitor Model E09487EB.

Please refer to the previous Issues of this Certificate, Issue 0, and Issue 1 for full product details

MANUFACTURER'S DOCUMENTS

Manufacturer's Documents associated with Issue 2 of this Certificate include those listed below. Refer to Issue 0 and 1 of this Certificate for the full range of manufacturers Documents.:

Document No.	Document Title	Issue	Date (yyyy/mm/dd)
24-2660-BT	Diesel Machine Monitor Main System PCB Bottom Layer	D	2006/02/03
24-2660-M1	Diesel Machine Monitor Main System PCB Mid Layer 1	D	2006/02/03

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Document No.	Document Title	Issue	Date (yyyy/mm/dd)
24-2660-M2	Diesel Machine Monitor Main System PCB Mid Layer 2	D	2006/02/03
24-2660-TO	Diesel Machine Monitor Main System PCB Top Overlay	D	2006/02/03
24-2660-TT	Diesel Machine Monitor Main System PCB Top Trace	D	2006/02/03
24-2663-BT	Wireless Link PCB Bottom Trace	D	2006/02/03
24-2663-TO	Wireless Link PCB Top Overlay	D	2006/02/03
24-2663-TT	Wireless Link PCB Top Trace	D	2006/02/03
25-6600ASSY	Enclosure, lid & accessories diesel gas sampler general assembly	3	2006/03/01
28-6601LEB	Label certification 9464eb diesel gas sampler with external battery manufacturing details	0	2006/01/31
28-6603LEB	Label certification 9465eb diesel gas sampler with external battery manufacturing details	0	2006/01/31
28-6604LEB	Label certification 9481eb diesel gas sampler with external battery manufacturing details	0	2006/01/31
28-6605LEB	Label certification 9482eb diesel gas sampler with external battery manufacturing details	0	2006/01/31
28-6606LEB	Label certification 9483eb diesel gas sampler with external battery manufacturing details	0	2006/01/31
28-6607LEB	Label certification 9484eb diesel gas sampler with external battery manufacturing details	0	2006/01/31
28-6608LEB	Label certification 9485eb diesel gas sampler with external battery manufacturing details	0	2006/01/31
28-6609LEB	Label certification 9486eb diesel gas sampler with external battery manufacturing details	0	2006/01/31
28-6610LEB	Label certification 9487eb diesel gas sampler with external battery manufacturing details	0	2006/01/31

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Document No.	Document Title	Issue	Date (yyyy/mm/dd)
47-6601L-01	Antenna co-axial monopole assembly with fittings general arrangement	2	2006/02/02
72-6600GAEB	Main components diesel gas sampler with external battery general arrangement	0	2006/03/01
72-6600GA	Main components diesel gas sampler general arrangement	3	2006/03/01
72-6600 Sheet 2 of 11	Battery Charging Circuits	V1C	2006/02/01
72-6600 Sheet 3 of 11	Power Switching and Supply Monitor	V1C	2006/02/01
72-6600 Sheet 4 of 11	ia Output Supplies	V1C	2006/02/01
72-6600 Sheet 5 of 11	Processor and User I/O	V1C	2006/02/01
72-6600 Sheet 6 of 11	Main Signal I/O	V1C	2006/02/01
72-6600 Sheet 7 of 11	Radio Data Link Version 2	V1E	2006/02/01
72-6600 Sheet 8 of 11	Root Schematic + connectors	V1C	2006/02/01
72-6600 Sheet 11 of 11	Diesel Machine Monitor Certified Parts List	C	2006/03/06
75-2660ENCEB	Main components diesel gas sampler with external battery epoxy resin encapsulation	0	2006/03/01

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Document No.	Document Title	Issue	Date (yyyy/mm/dd)
75-2660ENC	Main components diesel gas sampler epoxy resin encapsulation	2	2006/03/01

CONDITIONS OF CERTIFICATION:

Conditions of manufacture

Conditions of manufacturer are;

1. The apparatus must be manufactured in accordance with the certified drawings.
2. The apparatus shall be subjected to a 1000 V r.m.s test voltage applied between input terminals and case for not less than 1 minute.

Conditions of safe use

1. The following parameters are not exceeded

Input Parameters

Integral Cable	
U_m	90 V
U_n	12 to 24 V
Programming Header	
U_m	16.2 V
External Battery	
U_m	16.2 V

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Output Parameters

Terminal ID	U_o (V)	I_o (mA)	P_o (mW)	C_o (μ F)	L_o (μ H)	L/R (μ H/ Ω)
T.B.1 pin 1 wrt 0V e.g. pin 2	16.2	2508	3929	10	10	45
T.B.1 pin 3 wrt 0V e.g. pin 4	16.2	2508	3929	10	10	45
T.B.1 pin 5 wrt 0V e.g. pin 6	29.9	116.4	869	1	10	537
T.B.2	16.2	49.2	201	10	10	2347
T.B.3	16.2	216.1	870	10	10	536
T.B.4	16.2	101.8	411.9	10	10	1133
T.B.5	16.2	1218.8	1710.6	10	10	94
Antenna	16.2	2508	5760	10	10	45
Programming Header Pin 1 wrt pin 6	16.2	1715	3014	Not applicable see note 5 below		
Programming Header Pin 2 wrt pin 6	16.2	1715	3014	Not applicable see note 5 below		
Programming Header Pin 3 wrt pin 6	16.2	1715	3014	Not applicable see note 5 below		
Programming Header Pin 4 wrt pin 6	16.2	1715	3014	Not applicable see note 5 below		
Programming Header Pin 5 wrt pin 6	16.2	1715	3014	Not applicable see note 5 below		

2. The apparatus must be installed such that the integral wires are housed in a suitably certified Ex e or Ex d enclosure having a minimum Ingress Protection (IP) rating of IP55. If the wires are terminated in an Ex e enclosure suitably certified Ex e terminals must be used for terminating the wires.

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3. The earth bonding conductor must be infallibly connected to the chassis earth via terminations that are fixed in their mountings without possibility of self-loosening and shall be constructed such that the conductors cannot slip out of their intended location.
4. The apparatus is not suitable for use in areas where the equipment may be subject to corrosion, eg areas where acetic acid gases, mists, vapours or liquids are present
5. Connections to the Programming port are **only** to be used in the non-hazardous area.