



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.: IECEx TSA 13.0004X Issue No: 0 Certificate history:
Issue No. 0 (2013-06-21)

Status: **Current** Page 1 of 4

Date of Issue: **2013-06-21**

Applicant: **Ampcontrol CSM Pty Ltd**
7 Billbrooke Close
Cameron Park NSW 2285
Australia

Electrical Apparatus: **ECD Earth Continuity Relay**
Optional accessory:

Type of Protection: **[Ex ia] I (when non-I.S. Im not connected)**

Marking:
Ampcontrol
ECD
[Ex ia] I
Ta -20C to +65C
IECEX TSA 13.0004X
S. No.

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

Debbie Wouters

Position:

Acting Quality & Certification Manager

*Signature:
(for printed version)*

Date:

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:



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TestSafe Australia
919 Londonderry Road
Londonderry NSW 2753
Australia





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Manufacturer: **Ampcontrol CSM Pty Ltd**
7 Billbrooke Close
Cameron Park NSW 2285
Australia

Additional 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 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0
IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*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:

[AU/TSA/ExTR13.0003/00](#)

Quality Assessment Report:

[AU/TSA/QAR06.0007/05](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The ECD Earth Continuity Relay is used to measure the continuity of the loop connected at its pilot/earth terminals. This is typically used to measure the continuity of the pilot/earth of a trailing cable. The ECD may also be used as an intrinsically safe interlock relay. The pilot/earth circuit can be considered intrinsically safe only when the non-intrinsically safe circuits are isolated from the pilot/earth output.

CONDITIONS OF CERTIFICATION: YES as shown below:

See Annexe for details

Annex:

[Annex for IECEx TSA 13_0004X.pdf](#)



IECEX Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEX TSA 13.0004X	Issue No.:	0
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Conditions of Certification pertaining to Issue 0 of this Certificate:

1. The following parameters shall be taken into account when connecting the ECD Earth Continuity Relay:

On all the non-i.s. connections of the Relay: $U_m = 132V$ rms max.

On the blue coloured terminals providing the output for the Pilot/Earth Line:

<i>When Pilot/Earth Line is considered intrinsically safe</i>	
U_o	28V
I_o	184mA
P_o	1.28W
C_o	2.0uF *
L_o	10.0mH *
* The load can have the above C_o as a lumped value provided the L_o is < 1%, or it can have the above L_o as a lumped value provided the C_o is <1%. Optionally, the load can have the full value of C_o and L_o if distributed as in a cable	
<i>When Pilot/Earth Line is not considered intrinsically safe</i>	
I_m	5.25A for 1 s

2. The I.S. output is galvanically connected to the system earth. This shall be taken into consideration during installation.
3. A copy of the drawing ECDM003 must be provided to the user.

Drawing list pertaining to Issue 0 of this Certificate:

Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
ECDA001	1	ECD Relay Earth Continuity G.A. – Certification	0	-
ECDB002	1	ECD (<i>Bill of Material</i>)	1	2013-06-11
ECDE002	1	ECD IS Board (<i>Schematics</i>)	1	2013-06-11
ECDM003	1	ECD Label Contents and typical system diagram	1	2013-05-30
ECDP002	4	ECD IS Board (<i>PCB Layouts</i>)	1	2013-05-01

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