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 SIR 07.0043 issue No.:1	Certificate history: Issue No. 1 (2008-6-26) Issue No. 0 (2008-5-9)
Status:	**Current**	
Date of Issue:	**2008-06-26**	Page 1 of 4

Applicant: **Controlled Systems Limited**
Ryder Close
Cadley Hill
Swadlincote
Derbyshire DE11 9EU
United Kingdom

Electrical Apparatus: **9468 Ethernet Isolator**
Optional accessory:

Type of Protection: **Intrinsic Safety and Dust**

Marking: **(Ga) [Ex ia] IIC**
[Ex iaD]
(Ma) [Ex ia] I
(Ta = -40°C to +70°C)

Approved for issue on behalf of the IECEx Certification Body: D R Stubbings BA MIET

Position: Certification Manager

Signature:
(for printed version)

Date: 2008-06-26

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.

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira CERTIFICATION

IECEx Certificate of Conformity

Certificate No.: IECEx SIR 07.0043

Date of Issue: **2008-06-26** Issue No.: **1**

Manufacturer:

Controlled Systems Limited
Ryder Close
Cadley Hill
Swadlincote
Derbyshire DE11 9EU
United Kingdom

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 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-11 : 2005 Edition: 1	Electrical apparatus for use in the pressence of combustible dusts - Part 11: Protection by intrinsic safety 'iD'

*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:

GB/SIR/ExTR08.0054/00
GB/SIR/ExTR08.0076/00

Quality Assessment Report:
GB/SIR/QAR07.0023/01

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The 9468-ET Ethernet Isolator Module, rated supply voltage (terminals T1, T2 wrt T3, T4) 30 Vdc maximum, is intended for location in a non-hazardous (safe) area and is designed to extend an Ethernet network into a hazardous area, it also acts as an isolating interface between a 9400 series Ethernet network in the hazardous area and equipment in the safe area. The Cat5e/Cat6 Ethernet LAN cable is capable of going into/through Zones 2, 1 and 0 of the hazardous area.

The electronic components of the 9468-ET Ethernet Isolator Module are mounted on printed circuit boards within a plastic enclosure that is designed for mounting on a DIN rail. External electrical connections are made via screw type terminals and/or connectors mounted on the top of the enclosure. The Module may optionally be encapsulated, but this is not a requirement of this certification.

CONDITIONS OF CERTIFICATION: NO

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1 - this Issue introduced the following changes:	
1	The marking and standards were changed to correct a typographical error and the description amended for clarification.

Annexe: 07_0043_Issue1_Annexe.pdf

Annexe to:	IECEx SIR 07.0043
Applicant:	Controlled Systems Limited
Apparatus:	9468-ET Ethernet Isolator

The Applicant shall note the following condition of manufacture:

1. DB1 shall be constructed from two, type 1N5337B, zener diodes that are connected in parallel.

2. The following routine tests shall be carried out on transformer T1 (TRF305):

   A voltage of 1500 Vrms shall be applied for 60 seconds as required by clause 11.2 of EN 60079-11:2007 between:

   * The primary and secondary (1) windings.
   * The primary and secondary (2) windings.
   * The secondary (1) and secondary (2) windings.

The 9468-ET Ethernet Isolator Module has the following safety description:

(Safe area supply input) **Terminals T1, T2 wrt T3, T4**		
Um	=	250 V

(Intrinsically safe power supply input – optional PoEx) **Terminal T14 wrt T15 coloured blue**		
Ui	=	15.4 V
Ci	=	0.075 µF
Li	=	0

RJ45 connector to/from the hazardous area (10/100 Base T) **Coloured blue, marked 'HAZARDOUS AREA' 'LAN'** **For connection to RJ45 connector on other 9400 Series Ethernet Modules only** Ethernet port, intended for connection only to other RJ45 connectors on other 9400 Series Ethernet Modules, all powered from a single intrinsically safe supply. Connection to other Ethernet Systems requires special consideration and is outside the scope of this certificate.		
U_o	=	0 Vdc
I_o	=	0 Adc
P_o	=	0 W dc
Ci	=	0.075 µF
Li	=	0
Ui	=	15.4 V Maximum (PoEx)
Intrinsically safe power supply connected to terminals T14 wrt T15		
Uo	=	Uo of intrinsically safe power supply connected to terminals T14 wrt T15
Io	=	Io of intrinsically safe power supply connected to terminals T14 wrt T15
Po	=	Po of intrinsically safe power supply connected to terminals T14 wrt T15
Co	=	Co of intrinsically safe power supply connected to terminals T14 wrt T15 (less 0.075 µF and any cable capacitance at the terminals T14 and T15)
Lo	=	Lo of intrinsically safe power supply connected to terminals T14 wrt T15 (less any cable inductance at the terminals T14 and T15)
Ui	=	0

RJ45 connector to/from the safe area **Marked 'SAFE AREA' 'LAN'** **(10/100 Base T)**		
U_m	=	250 V

Date: 26 June 2008

Sira Certification Service
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