



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEX SIR 14.0115X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 5	Issue 4 (2022-02-07)
Date of Issue:	2023-01-23		Issue 3 (2019-05-17)
Applicant:	Eaton Electric Limited Great Marlings Butterfield Luton LU2 8DL United Kingdom		Issue 2 (2016-12-16)
Equipment:	Gecma RT Safe Area Unit		Issue 1 (2016-07-14)
Optional accessory:			Issue 0 (2015-01-22)
Type of Protection:	Optical Isolation and Intrinsically Safe		
Marking:	Gecma RT Safe Area Unit – fibre [Ex op is IIC T4 Gb] [Ex op is III C Db] Ta = -30°C to + 60°C	Gecma RT Safe Area Unit - copper [Ex ib Gb] IIC [Ex ib Db] IIIC Ta = -30°C to +60°C	

Approved for issue on behalf of the IECEx
Certification Body:

Michelle Halliwell

Position:

Director Operations, UK & Industrial Europe

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.



Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom





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Manufacturer: **Eaton Electric Limited**
Great Marlings
Butterfield
Luton LU2 8DL
United Kingdom

Manufacturing locations: **Eaton Electric Limited**
Great Marlings
Butterfield
Luton LU2 8DL
United Kingdom

S.C. Cooper Industries Romania
S.R.L
Zona Industriala Vest, Str. III, Nr. 12
310510 Arad
Romania

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-28:2015](#) Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

This Certificate **does not** indicate compliance with 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 Reports:

[GB/SIR/ExTR15.0005/00](#)
[GB/SIR/ExTR19.0132/00](#)

[GB/SIR/ExTR16.0157/00](#)
[GB/SIR/ExTR22.0001/00](#)

[GB/SIR/ExTR16.0325/00](#)
[GB/SIR/ExTR23.0026/00](#)

Quality Assessment Reports:

[DE/BVS/QAR11.0006/11](#)

[GB/BAS/QAR07.0017/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Gecma RT Safe Area Unit - Fibre is a keyboard video mouse (KVM) transceiver that is located in the non-hazardous area and acts as the interface between an uncertified computer device and a certified computer device in the hazardous area. It is available in either a single KVM desktop version or in a rack-mountable version that is capable of accommodating up to four KVMs. Communication between the non-hazardous and hazardous areas is via an "Ex op is" fibre optic link, which can be either multi-mode (up to 550 m range) or single mode (up to 10 km range). There are no electrical connections between the Gecma RT Safe Area Unit and hazardous area equipment.

The Gecma RT Safe Area Unit – Copper has the same function as the fibre model, but communicates to compatible hazardous area equipment by means of an 8-way Ethernet cable. The output is intrinsically safe and has the following entity parameters:

$U_i = 2.94 \text{ V}$	$I_i = 2.66 \text{ A}$	$P_i = 1.955 \text{ W}$	$C_i = 0.24 \mu\text{F}$	$L_i = 0$		
$U_o = 3.3 \text{ V}$	$I_o = 2.986 \text{ A}$	$P_o = 2.463 \text{ W}$	$C_o = 99 \mu\text{F}$	$L_o = 1.12 \mu\text{H}$	$L_o/R_o = 8.07 \mu\text{H}/\Omega$	

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When the 'Gecma RT Safe Area Unit – copper' is connected to another device via an Ethernet cable, the two devices at each end of the Ethernet cable shall be connected to the same equipotential earth.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, Issue 5, recognises the following changes; refer to the certificate annex to view a comprehensive history:

1. To permit a number of changes to the equipment namely removal of RS232 connector and wiring, removal of filter assembly on mains power input with associated wiring changes, and rack handles removed from rack mount versions.
2. To permit the use of a new shape PSU and KVM PCB.
3. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Edition 6 was replaced by IEC 60079-0:2017 Edition 7.

Annex:

[IECEX SIR 14.0115X Issue 5 Annexe.pdf](#)

Annexe to: IECEx SIR 14.0115X Issue 5

Applicant: Eaton Electric limited

Apparatus: Gecma RT Safe Area Unit



Full certificate change history

Issue 1 – this Issue introduced the following changes:

1. Introduction of the “Gecma RT Safe Area Unit – Copper” model, incorporating a copper Ethernet interface as an alternative to the optical interface, with the introduction of a new certification code [Ex ib Gb Db] IIC and the addition of entity parameters to the product description. The existing model, the ‘Gecma RT Safe Area Unit’ is re-named the ‘Gecma RT Safe Area Unit – Fibre’
2. As a result of the above change the description is modified, an ‘X’ suffix is added to the certificate number and IEC 60079-11 is introduced to the list of standards.

Issue 2 – this Issue introduced the following changes:

1. Change of manufacturer’s name from Measurement Technology Limited to Eaton Electric Limited.
2. Addition of Gecma Components GmbH, Kerpen, Germany as an alternative manufacturing address
3. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-28:2006 was replaced by IEC 60079-28:2015, with a corresponding change to the marking.

Issue 3 – this Issue introduced the following changes:

1. Change of Ethernet barrier resistor values (for Gecma RT Safe Area Unit – Copper) - reduced from 15 Ω to 5.6 Ω in COM module.
2. Updated drawings (CI6817-620 and CI6817-621) as a result of the change above.
3. As a result of the change above, change to the entity parameters as follows:

Original entity parameters for Ethernet Cable:

Ui	Ii	Pi	Ci	Li	Uo	Io	Po	Co	Lo	Lo/Ro
2.94V	1.584A	1.165W	0.24 μ F	0	3.3V	1.778A	1.467W	99 μ F	3.145 μ H	13.5 μ H/ Ω

Amended entity parameters for Ethernet Cable:

Ui	Ii	Pi	Ci	Li	Uo	Io	Po	Co	Lo	Lo/Ro
2.94V	2.66A	1.955W	0.24 μ F	0	3.3V	2.986A	2.463W	99 μ F	1.12 μ H	8.07 μ H/ Ω

Issue 4 – this Issue introduced the following changes:

1. The following manufacturing location was recognised: S.C. Cooper Industries Romania S.R.L, Zona Industriala Vest, Str. III Nr. 12, 310510 Arad, Romania.
2. Administrative changes to certification label drawing.
3. The following Additional manufacturing location was removed from the certificate: Gecma Components GmbH, Heinrich-Hertz-Strasse 12, 50170, Kerpen, Germany.

Issue 5 – this Issue introduced the following changes:

1. To permit a number of changes to the equipment namely removal of RS232 connector and wiring, removal of filter assembly on mains power input with associated wiring changes, and rack handles removed from rack mount versions.
2. To permit the use of a new shape PSU and KVM PCB.
3. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Edition 6 was replaced by IEC 60079-0:2017 Edition 7.