



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

Certificate No.: IECEX BAS 17.0067X Issue No: 0 Certificate history:  
Issue No. 0 (2017-06-22)

Status: **Current**

Date of Issue: **2017-06-22** Page 1 of 4

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

Equipment: **FCS-9524-166, FCS-9524-172 to -191 & FCS-9536-101 to -121 MTL Foundation  
Fieldbus Junction Box**

*Optional accessory:*

Type of Protection: **Increased Safety 'ec', Type of Protection 'nA' & Intrinsic Safety 'ic'**

Marking: **Ex ec nA [ic] IIC T4 Gc**  
**-35°C ≤ Ta ≤ +60°C**

Approved for issue on behalf of the IECEX  
Certification Body:

R.S. Sinclair

Position:

Technical Manager

Signature:  
(for printed version)

Date:

22-6-17

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:

**SGS Baseefa Limited**  
**Rockhead Business Park**  
**Staden Lane**  
**Buxton, Derbyshire, SK17 9RZ**  
**United Kingdom**





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

Additional Manufacturing location(s):

**MTL Instruments Pvt Limited**  
No 3 Old Mahabalipuram Road  
Sholinganallur  
Chennai 600119  
India

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:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-15 : 2010</b> Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
<b>IEC 60079-7 : 2006-07</b> Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
<b>IEC 60079-7 : 2015</b> Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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/BAS/ExTR17.0157/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0022/06](#)

[GB/BAS/QAR07.0017/06](#)



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## Schedule

### EQUIPMENT:

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

The FCS-9524-166, FCS-9524-172 to -191 & FCS-9536-101 to -121 MTL Foundation Fieldbus Junction Box enables up to forty eight individual 'ic' certified field devices in a Zone 2 hazardous area to be connected to a high energy trunk cable. The equipment can be fitted with four F304, F308 or F312 Relcom Megablock Fieldbus Connection Blocks, each fed via a MTL F30 ic Adapter. These, together with certified terminals and optional FS32 Surge Protection devices and F97 terminators are housed in a sheet steel IP66 rated enclosure.

The sheet steel IP66 rated enclosure (min. size 730mm x 730mm x 340mm) in which the equipment is housed is currently afforded certificate No. IECEx BVS 13.0026U and marked Ex e IIC Gb. One face of the external wall permits the following entries, A IP66 Ex 'e' certified breather and up to 52 Ex 'e' certified cable glands and / or stopping plugs.

The internal construction of the equipment fitted with the following specific components:

Up to 4 off certified MTL F30 ic Adapters currently afforded Certificate No. IECEx DEK 13.0038X. Each Adapter Trunk Input can be fitted with an Ex ec certified Eaton Electric Limited FS32 Surge Protection Devices currently afforded Certificate No. IECEx BAS 17.0015X. These can be optionally be fitted with F97 Terminators currently afforded Certificate No. IECEx FMG 11.0017X.

Up to 4 off F304, F308 or F312 Ex nA [ic] certified Relcom F300 Series Megablock(s) currently afforded Certificate No. IECEx FMG 11.0017X.

Up to 6 off Ex e Terminals of Type WDU2.5 currently afforded Certificate No. IECEx ULD 14.0005U.

Up to 48 off Ex ia certified Eaton Electric Limited FS32 Surge Protection Devices currently afforded Certificate No. IECEx BAS 09.0083X can be fitted to the 'ic' Fieldbus Output spurs of the Relcom F300 Series Megablock(s) fitted.

See addition sheet of the certificate for parameters and further details.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1) The equipment must be installed in an area of Pollution Degree 2 or better, as defined in IEC 60664-1.
- 2) The equipment shall be effectively earth bonded prior to use. It may not be capable of withstanding the 500V dielectric strength test in accordance with clause 7.1 of IEC 60079-7, and this must be taken into account during installation.
- 3) The enclosure shall not be fitted with plastic washer 1 as detailed in IECEx BVS 13.0026U.
- 4) The enclosure lid must be opened and closed in a vertical position so that the hinges are protected against excessive mechanical forces.
- 5) All non-I.S. connections to the equipment must not be inserted or removed unless either the area in which the equipment is installed is known to be non-hazardous, or the circuit to which it is connected has been de-energised. These connections must always have their IP30 covers in place.
- 6) Unused terminals inside the equipment shall be tightened.





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**EQUIPMENT (continued):**

The FCS-9524-166, FCS-9524-172 to -191 & FCS-9536-101 to -121 MTL Foundation Fieldbus Junction Boxes only differ in the number of connections provided for field device in a zone 2 hazardous area. The three digits at the end of the model numbers denotes the range of configurations of the equipment. The differences between the models and configurations do not affect the certification.

Input / Output Parameters:

Trunk Input (For each F30 ic Adapter fitted)

Rated Input Voltage = 24V d.c.  
 Rated Current = 200mA  
 Max. Power = 2W

'ic' Fieldbus Spurs (Each O/P Spur on the Megablock)

$U_o = 17.5V$        $C_o = 80nF$   
 $I_o = 56mA$        $L_o = 0.15mH$   
 $P_o = 1.344W$

The enclosure and its internal components are listed on the table below:

Item	Certificate	Marking	Standards
Enclosure Type N-TB	IECEx BVS 13.0026U	Ex e IIC Gb	IEC 60079-0: 2011 Edition 6 IEC 60079-7: 2007 Edition 4
MTL Ex ic Voltage Limiter, Types F30 Ex ic Adapter	IECEx DEK 13.0038X	Ex nA IIC T4 Gc (-40°C ≤ T <sub>a</sub> ≤ +70°C)	IEC 60079-0: 2011 Edition 6 IEC 60079-15: 2010 Edition 4
Relcom F300 Series Megablocks & F97 Terminators	IECEx FMG 11.0017X	Ex nA [ic] IIC T4 Gc (-50°C ≤ T <sub>a</sub> ≤ +70°C)	IEC 60079-0: 2011 Edition 6 IEC 60079-11: 2011 Edition 6 IEC 60079-15: 2010 Edition 4
WDU2.5 Terminals	IECEx ULD 14.0005U	Ex eb IIC	IEC 60079-0: 2011 Edition 6 IEC 60079-7: 2007 Edition 4
Eaton Electric Limited FS32 Surge Protection Device (fitted on 'ec' trunk I/P)	IECEx BAS 17.0015X	Ex ec IIC T4 Gc (-40°C ≤ T <sub>a</sub> ≤ +70°C)	IEC 60079-0: 2011 Edition 6 IEC 60079-7: 2015 Edition 5
Eaton Electric Limited FS32 Surge Protection Device (fitted on 'ic' Fieldbus Spur O/P's)	IECEx BAS 09.0083X	Ex ia IIC T4 Ga (-40°C ≤ T <sub>a</sub> ≤ +75°C)	IEC 60079-0: 2011 Edition 6 IEC 60079-11: 2011 Edition 6

Where the above certified components forming part of the equipment are certified to older editions of the standards than those listed for the FCS-9524-166, FCS-9524-172 to -191 & FCS-9536-101 to -121, the differences between the editions of the standards listed have been reviewed and determined to have no applicable technical differences affecting the equipment.