



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

Certificate No.:	<b>IECEx BAS 17.0067X</b>	Page 1 of 5	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 1	<a href="#">Issue 0 (2017-06-22)</a>
Date of Issue:	2024-09-09		
Applicant:	<b>Eaton Electric Limited</b> Great Marlings Butterfield Luton Bedfordshire LU2 8DL <b>United Kingdom</b>		
Equipment:	<b>FCS-9524-166, FCS-9524-172 to -191 &amp; FCS-9536-101 to -121 MTL Foundation Fieldbus Junction Box</b>		
Optional accessory:			
Type of Protection:	<b>Increased Safety 'ec', Type of Protection 'nA' &amp; Intrinsic Safety 'ic'</b>		
Marking:	<b>Ex ec nA [ic] IIC T4 Gc</b> <b>-35°C ≤ Ta ≤ +60°C</b>		

Approved for issue on behalf of the IECEx  
Certification Body:

**P Oates**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

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Certificate issued by:

**SGS UK 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**

Manufacturing  
locations: **Eaton Electric Limited**  
Great Marlings  
Butterfield  
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Bedfordshire  
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**United Kingdom**

**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 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 60079-0:2011** 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

**IEC 60079-15:2010** Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:4

**IEC 60079-7:2015** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

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/BAS/ExTR17.0157/00**

**GB/SGS/ExTR24.0130/00**

Quality Assessment Reports:

**GB/BAS/QAR06.0022/11**

**GB/BAS/QAR07.0017/11**



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## 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 certified under IECEx BAS 15.0071U for markings of Ex eb IIC Gb and Ex tb IIIC Db. One face of the external wall permits the following entries, A IP66 Ex 'eb' certified breather and up to 56 Ex 'eb' 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) Models with a hinged lid shall only be mounted in a vertical orientation, and care is required during installation and when opening the hinged lid, to ensure the enclosure does not distort.
- 2) Cable entry holes shall be fitted with equipment certified cable glands. The operating temperature range and ingress protection rating of the equipment is limited to those of the fitted glands.
- 3) Unused entry holes shall be fitted with equipment certified stopping plugs. The operating temperature range and ingress protection rating of the equipment is limited to those of the fitted stopping plugs.
- 4) Only breather/drain devices that are equipment certified may be fitted. They shall be suitable for the enclosure wall thickness to ensure draining can occur. The operating temperature range and ingress protection rating of the equipment is limited to that of the fitted breather/drain device.
- 5) Only adaptor/reducer devices that are equipment certified may be fitted. The operating temperature range and ingress protection rating of the equipment is limited to those of the fitted adapter/reducer devices.
- 6) The equipment must be installed in an area of at least Pollution Degree 2, as defined in IEC 60664-1.
- 7) 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.
- 8) Unused terminals inside the equipment shall be tightened.
- 9) 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.



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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 XL	IECEx BAS 15.0071U	Ex eb IIC Gb	IEC 60079-0: 2017 7 <sup>th</sup> Edition IEC 60079-7: 2017 Edition 5.1
MTL Ex ic Voltage Limiter, Types F30 Ex ic Adapter	IECEx DEK 13.0038X	Ex nA IIC T4 Gc ( $-40^{\circ}C \leq T_a \leq +70^{\circ}C$ )	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 ( $-50^{\circ}C \leq T_a \leq +70^{\circ}C$ )	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 ( $-40^{\circ}C \leq T_a \leq +70^{\circ}C$ )	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 ( $-40^{\circ}C \leq T_a \leq +75^{\circ}C$ )	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.



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

### Variation 2.1

To permit the use of an alternative enclosure.

ExTR: **GB/SGS/ExTR24.0130/00**

File Reference: **23/0288**