

# INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:

IECEx BAS 17.0101X

Issue No: 0

Page 1 of 4

Certificate history:

Status:

Current

Issue No. 0 (2017-09-20)

Date of Issue:

2017-09-20

Applicant:

Eaton Electric Limited

Great Marlings
Butterfield
Luton
Bedfordshire
LU2 8DL
United Kingdom

Equipment:

FCS-9524-301xx MTL Foundation Fieldbus Junction Box

Optional accessory:

Type of Protection:

Increased Safety and Type of Protection 'n'

Marking:

Ex ec nA IIC T4 Gc (-40°C ≤ Ta ≤ +65°C)

Approved for issue on behalf of the IECEx

Certification Body:

R. S. Sinclair

Position:

Signature:

(for printed version)

Date:

Technical Manager

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:

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





Page 2 of 4

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Date of Issue: 2017-09-20

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:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements

Edition:6.0

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

Edition:4

IEC 60079-7: 2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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 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/ExTR17.0261/00

Quality Assessment Report:

GB/BAS/QAR06.0022/06 GB/BAS/QAR07.0017/06



Certificate No: IECEx BAS 17.0101X Issue No: 0

Date of Issue: 2017-09-20 Page 3 of 4

Schedule

#### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The FCS-9524-301xx MTL Foundation Fieldbus Junction Box enables up to twenty four individual field devices in a Zone 2 hazardous area to be connected to a high energy trunk cable. The equipment can be fitted with either four F304, two F308 or two F312 Relcom Megablock Fieldbus Connection Blocks. These, together with certified terminals, optional FS32 Surge Protection devices and F97 terminators are housed in a stainless steel IP66 rated enclosure.

The stainless steel IP66 rated enclosure (min. size 406mm x 508mm x 152mm) in which the equipment is housed is currently afforded certificate No. IECEx BAS 15.0071U and marked Ex e IIC Gb. One face of the external wall permits the following entries, an IP66 Ex 'e' certified breather and up to 28 Ex 'e' certified cable glands and / or stopping plugs.

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

Either up to four F304, or up to two F308 or F312 Ex nA certified Relcom F300 Series Megablock(s) currently afforded Certificate No. IECEx FMG 11.0017X. These can be optionally fitted with F97 Terminators, also covered under the same certificate.

Up to 26 off Ex ec certified Eaton Electric Limited FS32 Surge Protection Devices currently afforded Certificate No. IECEx BAS 17.0015X.

Ex e Terminals of Type WDU2.5 currently afforded Certificate No. IECEx ULD 14.0005U. The number and location of the terminals is dependent on the installation, but maintain the required segregation from the Output spurs of the Relcom F300 Series Megablock(s) fitted

See additional sheet of the certificate for parameters and further information.

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

- 1) The equipment must be installed in an area of at least Pollution Degree 2, 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 only be mounted in a vertical orientation on a flat surface, and care is required in the installation process and when opening the hinged lid to ensure the enclosure does not distort.
- 4) All 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.
- 5) Unused terminals inside the equipment shall be tightened.



Certificate No:

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Page 4 of 4

### EQUIPMENT (continued):

The FCS-9524-301xx MTL Foundation Fieldbus Junction Boxes only differ in the number of connections provided for field device in a zone 2 hazardous area. The 'xx' at the end of the model number denotes the range of configurations of the equipment. The differences between the models and configurations do not affect the certification.

### Input Parameters:

Rated Input Voltage = 32V d.c. Rated Current = 2A

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

Item	Certificate	Marking	Standards
Ex-Cell Enclosure	IECEx BAS 15.0071U	Ex e IIC Gb	IEC 60079-0: 2011 6 <sup>th</sup> Edition IEC 60079-7: 2007 4 <sup>th</sup> Edition
Relcom F300 Series Megablocks & F97 Terminators		Ex nA IIC T4 Gc (-50°C ≤ T <sub>a</sub> ≤ +70°C)	IEC 60079-0: 2011 6 <sup>th</sup> Edition IEC 60079-15: 2010 4 <sup>th</sup> Edition
WDU2.5 Terminals	ECEx ULD 14.0005U	Ex eb IIC	IEC 60079-0: 2011 6 <sup>th</sup> Edition IEC 60079-7: 2007 4 <sup>th</sup> Edition
Eaton Electric FS3: Surge Protection Device	2 IECEx BAS 17.0015X	Ex ec IIC T4 Gc $(-40^{\circ}\text{C} \le \text{T}_{a} \le +70^{\circ}\text{C})$	IEC 60079-0: 2011 6 <sup>th</sup> Edition IEC 60079-7: 2015 5 <sup>th</sup> Edition

Where the above certified components forming part of the equipment are certified to older editions of the standards than those listed for the FCS-9524-301xx, the differences between the editions of the standards listed have been reviewed and determined to have no technical differences affecting the equipment