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 BAS 17.0092X**	Page 1 of 5	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2017-09-04)
Date of Issue:	2024-09-09		
Applicant:	**Eaton Electric Limited** Great Marlings Butterfield Luton Bedfordshire LU2 8DL **United Kingdom**		
Equipment:	**FCS-9524-300xx MTL Foundation Fieldbus Junction Box**		
Optional accessory:			
Type of Protection:	**Increased Safety, Type of Protection 'n' & Intrinsic Safety**		
Marking:	**Ex ec nA [ic] IIC T4 Gc (-40°C ≤ Ta ≤ +65°C)**		

Approved for issue on behalf of the IECEx Certification Body: **P Oates**

Position: **Certification Manager**

Signature: (for printed version)

Date: (for printed version) 9/9/2024

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:

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

IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 17.0092X**

Date of issue: 2024-09-09

Issue No: 1

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

Manufacturing locations: **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 60079-0:2017 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 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

IEC 60079-7:2006 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

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/ExTR17.0239/00 GB/SGS/ExTR24.0103/00

Quality Assessment Reports:

GB/BAS/QAR06.0022/10 GB/BAS/QAR07.0017/10

IECEx Certificate of Conformity

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

The FCS-9524-300xx MTL Foundation Fieldbus Junction Box enables up to twenty four 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 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 sheet steel IP66 rated enclosure.

The sheet steel IP66 rated enclosure (min. size 480mm x 480mm x 205mm) in which the equipment is housed is currently component 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: 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 [ic] certified Relcom F300 Series Megablock(s) currently afforded Certificate No. IECEx FMG 11.0017X. Each Megablock Trunk Input can be optionally fitted with F97 Terminators, also covered under the same certificate, and with an 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 'ic' Fieldbus Output spurs of the Relcom F300 Series Megablock(s) fitted.

Up to 24 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.

IECEx Certificate of Conformity

Equipment (continued):

The FCS-9524-300xx 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 / Output Parameters:

Trunk Input (For each F300 Megablock fitted)

Rated Input Voltage = 24V d.c.
Rated Current = 2A

The Trunk Input must be fed from an appropriately certified intrinsically safe voltage-limited Fieldbus power supply with $U_o \leq$ 24V d.c.

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

U_o	=	24V	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: 2011 6th Edition IEC 60079-7: 2007 4th Edition
Relcom F300 Series Megablocks & F97 Terminators	IECEx FMG 11.0017X	Ex nA [ic] IIC T4 Gc (-50°C ≤ T_a ≤ +70°C)	IEC 60079-0: 2011 6th Edition IEC 60079-11: 2011 6th Edition IEC 60079-15: 2010 4th Edition
WDU2.5 Terminals	IECEx ULD 14.0005U	Ex eb IIC	IEC 60079-0: 2011 6th Edition IEC 60079-7: 2007 4th Edition
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_a ≤ +70°C)	IEC 60079-0: 2011 6th Edition IEC 60079-7: 2015 5th Edition
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_a ≤ +75°C)	IEC 60079-0: 2011 6th Edition IEC 60079-11: 2011 6th 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-9524-300xx, the differences between the editions of the standards listed have been reviewed and determined to have no technical differences affecting the equipment.

IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 17.0092X** Page 5 of 5

Date of issue: 2024-09-09 Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Variation 1.1

To permit:-

- The use of an different component certified enclosure, and standards updates to IEC 60079-0:2017 ed.7, and IEC 60079-7:2017 ed. 5.1.

ExTR: **GB/SGS/ExTR24.0103/00**	File Reference: **23/0288**