



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 17.0122X**

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Certificate history:

Status: **Current**

Issue No: 3

[Issue 2 \(2024-09-09\)](#)

[Issue 1 \(2019-12-09\)](#)

[Issue 0 \(2018-02-21\)](#)

Date of Issue: **2024-09-27**

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

Equipment: **FCS-9504-1XX, FCS-9508-1XX & FCS-9512-1XX Fieldbus Megablock Enclosures**

Optional accessory:

Type of Protection: **Flameproof, Increased Safety & Encapsulation**

Marking: **Ex db eb mb IIC T4 Gb (-40°C ≤ Ta ≤ +60°C)**

Approved for issue on behalf of the IECEx
Certification Body:

P Oates

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

27/09/2024

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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: **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 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

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

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/ExTR17.0348/00
GB/SGS/ExTR24.0101/00

GB/BAS/ExTR19.0333/00

GB/BAS/ExTR24.0004/00

Quality Assessment Reports:

GB/BAS/QAR06.0022/10

GB/BAS/QAR07.0017/10



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The FCS-9504-1XX, FCS-9508-1XX & FCS-9512-1XX Fieldbus Megablock Enclosures enables up to twelve individual field devices in a Zone 1 hazardous area to be connected to a high energy trunk cable. The enclosures can be fitted with one, two or three F2xx-XE MTL Relcom Megablock wiring hubs according to the type chosen. These, together with certified terminals, optional TP32 Surge Protection devices and FCS-MBT-XE terminators are housed in a stainless steel IP66 rated enclosure.

The stainless steel IP66 enclosure (min size 406mm x 350mm x 203mm for FCS-9504-1XX 4-spur and FCS-9508-1XX 8-spur Megablock configurations, and min size 406mm x 356mm x 203mm for the FCS-9512-1XX 12-Spur Megablock configuration), is populated with the following components terminal blocks, surge protectors and Megablocks, all of which are certified. The enclosures are component certified under IECEx BAS 15.0071U for markings of Ex eb IIC Gb and Ex tb IIIC Db.

The enclosure has an IP66 Ex e breather/drain (factory fitted), and up to 15 IP66 Ex e cable glands or stopping plugs (which may or may not be factory fitted). The input power ratings for the assembly are 30V d.c at 0.39A.

The equipment may contain a combination of the following:

Fieldbus XE Megablock wiring hubs and FCS-MBT-XE terminators, the number installed is dependent upon the Process Junction Box type (see details below). These have been assessed and are certified under IECEx DEK 16.0036U.

Certified Ex e protective conductor terminal blocks, the number/type installed depends on the type of assembly. WPE4 & WDU2.5 terminals are afforded certificate number IECEx ULD 14.0005U, ZPE4 & ZDU2.5 terminals are afforded certificate number IECEx ULD 15.0008U, WDK2.5V terminals are afforded certificate number IECEx ULD 15.0003U and ZDK2.5V terminals are afforded certificate number IECEx ULD 16.0025U. The terminals are suitable for an operating temperature range of -50°C to +100°C.

Up to 15 flameproof certified TP32 Surge Protectors are afforded certificate number IECEx BAS 15.0056X.

See addition sheet of the certificate for further details.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The equipment shall be effectively earth bonded prior to use.
2. Only Ex e certified cable glands, breathers or blanking plugs may be used with the equipment.
3. Entry device shall maintain a minimum ingress protection of at least IP54.
4. The enclosure lid must be opened and closed in a vertical position so that the hinges are surely protected against excessive mechanical forces.
5. Terminal blocks shall be protected against sun and UV light.
6. Under any condition no part of the equipment shall exceed the temperature range.
7. When used below -10°C field wiring suitable for minimum ambient temperature shall be used for the WPE 4 terminal blocks.
8. Unused terminals shall be tightened.



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Equipment (continued):

The permissible combinations of the above components are as follows:

FCS-9504-1XX 4-Spur Megablock Enclosures

Process Junction Box type FCS-9504-170 to 171, 173 to 180 & 282 to 299 -

1 F245-XE or 1 F247-XE Megablock may be fitted. 1 FCS-MBT-XE terminator may optionally be fitted with the F245-XE / F247-XE Megablock. Up to 5 TP32 Surge Protectors for fieldbus trunk and spurs may optionally be fitted.

FCS-9508-1XX 8-Spur Megablock Enclosures

Process Junction Box type FCS-9508-110 to 119 -

1 F251-XE, or 1 F253-XE, or up to 2 F245-XE, or up to 2 F247-XE Megablocks may be fitted.

1 FCS-MBT-XE terminator(s) may optionally be fitted with each F245-XE, F247-XE, F251-XE or F253-XE Megablock. Up to 10 TP32 Surge Protectors for fieldbus trunk and spurs may optionally be fitted.

FCS-9512-1XX 8-Spur Megablock Enclosures

Process Junction Box type FCS-9512-171 to 180

1 F271-XE, or 1 F251-XE, or 1 F253-XE, or 1 F251-XE & 1 F245-XE, or 1 F253-XE & 1 F247-XE, or up to 3 F245-XE, or up to 3 F247-XE Megablocks may be fitted. 1 FCS-MBT-XE terminator(s) may optionally be fitted with each F245-XE, F247-XE, F251-XE, F253-XE or F271-XE Megablock. Up to 15 TP32 Surge Protectors for fieldbus trunk and spurs may optionally be fitted.

The component parts are listed on Table 1 as follows:

Item	Certificate	Code	Standards
Enclosure type N-TB...	IECEx BVS 13.0026U	Ex e IIC Gb Ex tb IIIC Db	IEC 60079-0: 2011 Ed. 6 IEC 60079-7: 2006 Ed.4 IEC 60079-31: 2013 Ed.2
Type Ex-Cell Enclosure	IECEx BAS 15.0071U	Ex e IIC Gb Ex tb IIIC Db	IEC 60079-0: 2011 Ed. 6 IEC 60079-7: 2006 Ed.4 IEC 60079-31: 2013 Ed.2
Fieldbus XE Megablock	IECEx DEK 16.0036X	Ex eb mb IIC T4 Gb (-45°C ≤ Tamb ≤ +70°C)	IEC 60079-0: 2011 Ed. 6 IEC 60079-7: 2015 Ed. 5 IEC 60079-18: 2014 Ed. 4
Feed Through Terminal Blocks WPE4 & WDU2.5	IECEx ULD 14.0005U	Ex eb IIC Gb T6 (- 60°C ≤ Tamb ≤ +40 °C) T5 (- 60°C ≤ Tamb ≤ +55 °C) T4 (-60°C ≤ Tamb ≤ +70°C)	IEC 60079-0: 2017 Ed. 7 IEC 60079-7: 2017 Ed. 5.1
Feed Through Terminal Blocks WDK2.5V	IECEx ULD 15.0003U	Ex eb IIC Gb T6 (- 60°C ≤ Tamb ≤ +40 °C) T5 (- 60°C ≤ Tamb ≤ +55 °C) T4 (-60°C ≤ Tamb ≤ +70°C)	IEC 60079-0: 2017 Ed. 7 IEC 60079-7: 2017 Ed. 5.1
Feed Through Terminal Blocks ZDK2.5V	IECEx ULD 16.0025U	Ex eb IIC Gb T6 (- 60°C ≤ Tamb ≤ +40 °C) T5 (- 60°C ≤ Tamb ≤ +55 °C) T4 (-60°C ≤ Tamb ≤ +70°C)	IEC 60079-0: 2011 Ed. 6 IEC 60079-7: 2015 Ed. 5
Feed Through Terminal Blocks ZPE4 & ZDU2.5V	IECEx ULD 15.0008U	Ex eb IIC Gb -60°C to +110°C T6 (- 60°C ≤ Tamb ≤ +40 °C) T5 (- 60°C ≤ Tamb ≤ +55 °C) T4 (-60°C ≤ Tamb ≤ +70°C)	IEC 60079-0: 2011 Ed. 6 IEC 60079-7: 2015 Ed. 5
TP32 Surge Protection Device	IECEx BAS 15.0056X	Ex db IIC T6 Gb -40°C to +70°C)	IEC 60079-0: 2011 Ed. 6 IEC 60079-1:2014 Ed. 7

Table 1: Component List



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Where the above certified components forming part of the equipment are certified to older editions of the standards than those listed for the FCS-9504-1XX, FCS-9508-1XX & FCS-9512-1XX Fieldbus Megablock Enclosures, the differences between the editions of the standards listed have been reviewed and determined to have no technical differences affecting the equipment.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Variation 3.1

To update the references to IECEx DEK 16.0036X to IECEx DEK 16.0036U.

ExTR: **GB/BAS/ExTR24.0004/00**

File Reference: **24/0221**