

INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

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Certificate No.: **IECEx BAS 22.0022X** Page 1 of 5

Issue No: 5 Status: Current

Date of Issue: 2025-09-18

Applicant: **Eaton Electric Limited**

Great Marlings Butterfield Luton Bedfordshire LU2 8DL **United Kingdom**

Equipment: Models FCS-8512-305, FCS-95xx-306xx and FCS-95xx-307xx Fieldbus Megablock Enclosure

Optional accessory:

Type of Protection: Increased safety and Encapsulation

Marking: FCS-8512-305

Ex eb mb IIC T4 Gb (-40°C \leq Ta \leq +60°C)

FCS-95xx-306xx and FCS-95xx-307xx - Stainless Steel Model (XL type)

Ex eb mb IIC T4 Gb (-40°C \leq Ta \leq +60°C)

FCS-95xx-306Txx and FCS-95xx-307Txx – Stainless Steel Model (Trimurti type)

Ex eb mb IIC T4 Gb (-20°C \leq Ta \leq +60°C)

Approved for issue on behalf of the IECEx

Certification Body:

Position: **Certification Consultant**

Signature:

(for printed version)

(for printed version)

18/09/2025

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Certificate history: Issue 4 (2025-07-09)

Issue 3 (2024-09-27) Issue 2 (2023-10-10)

Issue 1 (2023-01-30) Issue 0 (2022-05-05)

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 Luton Bedfordshire LU2 8DL

United Kingdom

Eaton Electric India Private LimitedNo 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 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"

Edition:4.1

Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

IEC 60079-7:2017 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/ExTR22.0053/00 GB/BAS/ExTR23.0004/00 GB/BAS/ExTR24.0004/00

GB/SGS/ExTR23.0121/00 GB/SGS/ExTR25.0119/00

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:

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The FCS-8512-305 Fieldbus Megablock Enclosure enables up to twelve individual field devices in a Zone 1 hazardous area to be connected to a high energy trunk cable. The equipment is fitted with one F2xx-XE series MTL Relcom Megablock wiring hub and optionally FS32-XE Surge devices housed in a Glass Reinforced Polyester with graphite added IP66 rated enclosure.

The Glass Reinforced Polyester with graphite added IP66 rated enclosure type GBXE402512 (min. size 400mm x 250mm x 120mm) in which the equipment is housed is currently afforded certificate No. TUV 19 ATEX 8392 U and marked Ex eb IIC Gb. One face of the external wall permits the following entries, An IP66 Ex 'e' certified breather and up to 14 Ex 'e' certified cable glands and / or stopping plugs.

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

• One of the following F2xx-XE Megablocks:

F245-XE, 4 way; F247-XE, 4 way + internal terminator; F251-XE, 8 way; F253-XE, 8 way + internal terminator; F259-XE, 10 way + internal terminator; F271-XE, 12 way + internal terminator currently afforded Certificate No. IECEx DEK 16.0036U.

- FS32-XE, Trunk and Spur Surge Protection Device currently afforded Certificate No. IECEx BAS 20.0079U.
- WDU 2.5 wire terminals currently afforded certificate number IECEx ULD 14.0005U.
- UT 2.5 wire terminals currently afforded certificate number IECEx KEM 06.0027U.

The model FCS-8512-305 Fieldbus Megablock Enclosure is suitable for use in an ambient temperature of -40°C to +60°C. The power ratings of the equipment are 30V d.c. at 1.5A.

The internal parts within the enclosure are listed on the table 1 in the Annex.

The models FCS-95xx-306xx and FCS-95xx-307xx Fieldbus Megablock Enclosure differ from the model FCS-8512-305 in that they are housed in a stainless steel IP66 rated enclosure and enable up to twelve or twenty four individual field devices in a Zone 1 hazardous area to be connected to a high energy trunk cable.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1. The equipment shall be effectively earth bonded prior to use.
- 2. All cable entry devices shall be suitably certified for protection type of 'eb', and all unused openings shall be fitted with suitable blanking elements with protection type of 'eb' so that min. ingress protection of IP64 is maintained.
- 3. The equipment is not capable of withstanding a 500Vac isolation test voltage between all inputs to earth. This must be taken into account during installation.
- 4. For models FCS-95xx-306xx and FCS-95xx-307xx only: 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.
- 5. When using the Trimurti type enclosure, plastic parts not assessed to requirements of IEC/EN 60079-0 CL 7.3 Resistance to Light, the equipment shall be marked by the symbol "X" to indicate this specific condition of use according to IEC/EN 60079-0 CL 29.3 item e) i.e. not subject to direct exposure to any natural or artificial light source such as lamps or lighting.



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Equipment (continued):

The stainless steel enclosure, min. size 406mm x 305mm x 152mm for single F2xx megablock (up to 12-ways) and min. size 406mm x 508mm x 152mm for double F2xx megablock (up to 24-ways), in which the equipment is housed, is manufactured by Cooper Crouse-Hinds GmbH, currently afforded certificate No. IECEx BAS 15.0071U and marked Ex eb IIC Gb. As an alternative, an enclosure manufactured by Trimurti Stainlink Equipment PVT, Ltd. and certified under IECEx CML 17.0160U may be used.

The equipment model number is defined by the type of enclosure used and is shown in the table below.

Model Number	Enclosure Type
FCS-95xx-306xx and FCS-95xx-307xx	Stainless Steel Enclosure (XL type)
FCS-95xx-306Txx and FCS-95xx-307Txx	Stainless Steel Enclosure (Trimurti type)

Additionally, the models FCS-95xx-306xx and FCS-95xx-307xx Fieldbus Megablock Enclosure can optionally include FCS-MBT-XE Terminator, which is currently afforded certificate No. IECEx DEK 16.0036X and marked Ex eb mb IIC Gb. The FCS-MBT-XE Terminator can be fitted on the same DIN rail as the 'Ex e' terminals and is only an option when using the F245-XE (4 spur) or F251-XE (8 spur) megablocks.

The models FCS-95xx-306xx and FCS-95xx-307xx Fieldbus Megablock Enclosure are suitable for use in an ambient temperature of -40°C to +60°C (with XL type enclosures) or -20°C to +60°C (with Trimurti type enclosures).

The power ratings of the equipment are 30V d.c., 1.5A - for 12 spur enclosure or 3A - for 24 spur enclosure.

The internal parts within the enclosure are listed on the table 2 in the Annex.

The correspondence of specific models FCS-95xx-306xx and FCS-95xx-307xx Fieldbus Megablock Enclosure with the components installed in them is given below:

For single megablock junction box		
FCS-9504-306xx or -306Txx	1 or 2 x 4 way F245-XE or F247-XE	
FCS-9508-306xx or -306Txx	8 way F251-XE or F253-XE	
FCS-9510-306xx or -306Txx	10 way F259-XE	
FCS-9512-306xx or -306Txx	12 way F271-XE	
or double megablock junction box		
FCS-9508-307xx or -307Txx	2, 3 or 4 x 4 way F245-XE or F247-XE	
FCS-9516-306xx or -306Txx	2x 8 way F251-XE or F253-XE	
FCS-9520-306xx or -306Txx	2x 10 way F259-XE	
FCS-9524-307xx or -307Txx	2x 12 way F271-XE	

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.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above) Variation 5.1

To permit the use of an alternative stainless-steel enclosure.

Variation 5.2

Minor typographical corrections to drawings not affecting certification.

ExTR: GB/SGS/ExTR25.0119/00 File Reference: 25/0371

Annex:

IECEx BAS 22.0022X Annex Issue 3.pdf

SGS Baseefa Limited

Rockhead Business Park Staden lane, Buxton, Derbyshire SK17 9RZ United Kingdom



ANNEX to IECEx BAS 22.0022X

Issue No. 3

Date: 18 September 2024

Table 1 - List of Ex Certified components model FCS-8512-305

Item	Certificate	Code	Standards
Enclosure GBXE402512	IECEx TUR 19.0040U	Ex eb IIC Gb Ex tb IIIC Db	IEC 60079-0: 2017 Edition: 7.0 IEC 60079-7: 2017 Edition: 5.1 IEC 60079-31: 2013 Edition: 2
Fieldbus XE Megablock and Terminator	IECEx DEK 16.0036U	Ex eb mb IIC T4 Gb	IEC 60079-0: 2011 Edition: 6.0 IEC 60079-7: 2015 Edition: 5.0 IEC 60079-18: 2014 Edition: 4.0
FS32-XE Surge Protection Device	IECEx BAS 20.0079U	Ex eb mb IIC Gb $(-40^{\circ}\text{C} \le T_a \le +80^{\circ}\text{C})$	IEC 60079-0: 2017 Edition: 7.0 IEC 60079-7: 2017 Edition: 5.1 IEC 60079-18: 2017 Edition 4.1
WDU 2.5 Terminals	IECEx ULD 14.0005U	Ex eb IIC Gb	IEC 60079-0: 2017 Edition: 7.0 IEC 60079-7: 2017 Edition: 5.1
UT 2.5 Terminals	IECEx KEM 06.0027U	Ex eb IIC Gb	IEC 60079-0: 2017 Edition: 7.0 IEC 60079-7: 2017 Edition: 5.1

Table 2 - List of Ex Certified components models FCS-95xx-306 and FCS-95xx-307

Item	Certificate	Code	Standards
Enclosure Type Ex-cell	IECEx BAS 15.0071U	Ex eb IIC Gb Ex tb IIIC Db	IEC 60079-0: 2017 Edition: 7.0 IEC 60079-7: 2017 Edition: 5.1 IEC 60079-31: 2013 Edition: 2
Fieldbus XE Megablock	IECEx DEK 16.0036U	Ex eb mb IIC T4 Gb	IEC 60079-0: 2011 Edition: 6.0 IEC 60079-7: 2015 Edition: 5.0 IEC 60079-18: 2014 Edition: 4.0
FCS-MBT-XE Terminator	IECEx DEK 16.0036U	Ex eb mb IIC T4 Gb	IEC 60079-0: 2011 Edition: 6.0 IEC 60079-7: 2015 Edition: 5.0 IEC 60079-18: 2014 Edition: 4.0
FS32-XE Surge Protection Device	IECEx BAS 20.0079U	Ex eb mb IIC Gb $(-40^{\circ}\text{C} \le \text{T}_{a} \le +80^{\circ}\text{C})$	IEC 60079-0: 2017 Edition: 7.0 IEC 60079-7: 2017 Edition: 5.1 IEC 60079-18: 2017 Edition 4.1
WDU 2.5 Terminals	IECEx ULD 14.0005U	Ex eb IIC Gb	IEC 60079-0: 2017 Edition: 7.0 IEC 60079-7: 2017 Edition: 5.1