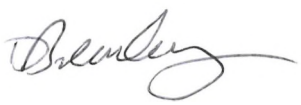
IECEx Certificate of Conformity

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 15.0100X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2015-09-29)
Date of Issue:	2024-04-17		
Applicant:	**Eaton Electric Limited** Great Marlings Butterfield Luton Bedfordshire LU2 8DL **United Kingdom**		
Equipment:	**93ZX-FB2 Fieldbus Barrier Module**		
Optional accessory:			
Type of Protection:	**Flameproof, Increased Safety, Encapsulation, Intrinsic Safety, Dust protection by enclosure**		
Marking:	**Ex db eb ib mb [ia Ga] IIC T4 Gb (-40°C to +64°C)** **Ex tb IIIC T80°C Db**		

Approved for issue on behalf of the IECEx Certification Body:	**D Brearley**
Position:	**Certification Consultant**
Signature: (for printed version)	
Date: (for printed version)	17/4/2024

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Certificate issued by:

SGS UK Limited
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United Kingdom

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Manufacturer:
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Manufacturing locations:
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MTL Instruments Pvt Limited
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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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1:2014 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11:2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-18:2017 Edition:4.1	Explosive atmospheres - Part 18: Protection by encapsulation "m"
IEC 60079-31:2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7:2017 Edition:5.1	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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/ExTR15.0226/00 GB/BAS/ExTR16.0286/00

Quality Assessment Reports:

GB/BAS/QAR06.0022/11 GB/BAS/QAR07.0017/06

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

The 93ZX-FB2 Fieldbus Barrier System comprises a 93ZX-FB2 Fieldbus Barrier Module, optionally a component certified Trunk Surge Module (part ref. 9376¬-SP), optionally a component certified F93XE Fieldbus Terminator (part ref. F93-XE) and optionally up to twelve Spur Surge Modules (part ref. FS32), all housed inside a certified IP64 stainless steel enclosure.

The 93ZX-FB2 Fieldbus Barrier System is designed to have two Barrier Modules in use at any one time, with two more Barrier Modules standing by in case of a failure of an energised module. Should a Barrier Module fail, due to the use of Ex d e live-demateable connectors, a Barrier Module may be replaced without having to power down the apparatus.

The 93ZX-FB2 Fieldbus Barrier Module is designed to be supplied from a power supply conforming to IEC 61158 and produces 12 Spur outputs that are each compliant with the FISCO Power Supply requirements. The Spur outputs are isolated from the input supply but are not isolated from each other. Electrical connections are made via screw terminals.

See annex for Terminal Parameters.

SPECIFIC CONDITIONS OF USE: YES as shown below:
1 - The equipment shall only be powered from supplies conforming to IEC 61158.
2 - When a Trunk Surge Module is fitted, the power input circuit will not withstand a 500V a.c. isolation test to earth. This must be taken into account during installation.
3 - When one or more Spur Surge Modules are fitted, the spur outputs will not withstand a 500V a.c. isolation test to earth. This must be taken into account during installation.
4 - Potential electrostatic hazard. The equipment should only be cleaned with a damp cloth.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 1.1

To permit a change of company name, an update to the referenced standards and the use of alternative enclosures.

ExTR: **GB/BAS/ExTR16.00286/00**	File Reference: **16/0371**

Annex:

IECEx BAS 15.0100X annex issue 0.pdf

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Terminal Parameters - SPUR+ve Output Terminal and Shield Terminal w.r.t Spur-ve (each channel)

U_o	= 16.4V
$I_{o\ peak}$	= 246mA
$I_{o\ continuous}$	= 215mA
P_o	= 912mW
U_i	= 17.5V
C_i	= 0
L_i	= 0

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to hazardous area terminals TB1 must not exceed the following values:

GROUP	CAPACITANCE	INDUCTANCE	OR	L/R RATIO
	(µF)	(mH)		(µH/ohm)
IIC	0.339	0.57		34.7
IIB	2.51	2.28		138
IIA	10.0	4.56		277

The above load parameters apply where:

1. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.

or 2. The inductance and capacitance are distributed as in a cable.

or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and lumped capacitance, up to 50% of each of the L and C values is allowed.