

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 2014/34/EU**

3 EU - Type Examination Certificate Number: **Baseefa17ATEX0139X**

4 Product: **93ZX-FB2-XX-XX-XXXX Fieldbus Barrier System**

5 Manufacturer: **Eaton Electric Ltd.**

6 Address: **Butterfield, Luton, LU2 8DL**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Baseefa, Notified Body number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR17.0265/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0:2012+A11:2013 EN 60079-1:2014 EN 60079-7:2015 EN 60079-11:2012 EN 60079-18:2009  
EN60079-31:2014**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following :

**Ⓧ II 2(1)GD Ex d e ib mb [ia Ga] IIC T4 Gb (-40°C ≤ T<sub>a</sub> ≤ +65°C) Ex tb IIIC T80°C Db**

SGS Baseefa Customer Reference No. **0703**

Project File No. **17/0644**

This document is issued by the Company subject to its General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and the Supplementary Terms and Conditions accessible at <http://www.sgs.com/SGSBaseefa/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**SGS Baseefa Limited**

Rockhead Business Park, Staden Lane,  
Buxton, Derbyshire SK17 9RZ

Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601  
e-mail [baseefa@sgs.com](mailto:baseefa@sgs.com) web site [www.sgs.co.uk/baseefa](http://www.sgs.co.uk/baseefa)

Registered in England No. 4305578.

Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN

  
R S SINCLAIR *PP ALAN OCPEN*  
TECHNICAL MANAGER

On behalf of SGS Baseefa Limited

13

## Schedule

14

### Certificate Number Baseefa17ATEX0139X

#### 15 Description of Product

The 93ZX-FB2-XX-XX-XXX Fieldbus Barrier System comprises one or two 937X-FB2-\*\*-\*\* Fieldbus Barrier Module(s) mounted inside a stainless steel enclosure.

The 93ZX-FB2-XX-XX-XXX Fieldbus Barrier System is designed to be supplied from a power supply conforming to IEC 61158 and produce 12 (where ZX=87) or 24 (where ZX=88) 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 or spring terminals.

The 937X-FB2-\*\*-\*\* Fieldbus Barrier Module component present in this equipment contains a component certified connector covered by TUV09ATEX555354U that references the standards EN 60079-0:2012+A11:2013, EN 60079-1:2007 and EN 60079-7:2007. Conformity with EN 60079-1:2014 is based on an Attestation of Conformity by the certificate holder that the component conforms to EN 60079-0:2012+A11:2013, EN 60079-1:2014 and EN 60079-7:2015.

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

$U_o$	= 16.4V
$I_{o\ peak}$	= 249.5mA
$I_{o\ continuous}$	= 109mA
$P_o$	= 898mW
$U_i$	= 16.4V
$C_i$	= 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 $C_o$ ( $\mu$ F)	INDUCTANCE $L_o$ (mH)	OR	L/R RATIO ( $\mu$ H/ohm)
IIC	0.424	0.57		34.7
IIB	2.51	2.28		138
IIA	10.0	4.56		277

The above load parameters apply where:

The above parameters apply when one of the two conditions below is given:

- the total  $L_i$  of the external circuit (excluding the cable) is < 1% of the  $L_o$  value or
- the total  $C_i$  of the external circuit (excluding the cable) is < 1% of the  $C_o$  value.

The above parameters are reduced to 50% when both of the two conditions below are given:

- the total  $L_i$  of the external circuit (excluding the cable)  $\geq$  1% of the  $L_o$  value and
- the total  $C_i$  of the external circuit (excluding the cable)  $\geq$  1% of the  $C_o$  value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1 $\mu$ F for Groups IIA & IIB, and 600nF for Group IIC.

The values of  $L_o$  and  $C_o$  determined by this method shall not be exceeded by the sum of all of the  $L_i$  plus cable inductances in the circuit and the sum of all of  $C_i$  plus cable capacitances respectively.

#### 16 Report Number

GB/BAS/ExTR17.0265/00

**17 Specific Conditions of Use**

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. Equipment fitted with a plastic certification label should only be cleaned with a damp cloth.
5. When the enclosure is fitted with a hinged lid fitted, it 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.
6. When the enclosure is fitted with a fully bolted lid the enclosure may be mounted in any orientation but it shall be on a flat surface and care is required in the installation process to ensure that the enclosure does not distort.

**18 Essential Health and Safety Requirements**

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

**19 Drawings and Documents**

Number	Sheet	Issue	Date	Description
CI9388-FB2-1 *1	1 & 2	1	23/08/2017	93ZX-FB2 Assembly
CI9388-FB2-3 *1	1	1	10.17	93ZX-FB2 Encl Cert Label

Note \*1 - These drawings are held with IECEX BAS 17.0112X.

1 **SUPPLEMENTARY EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 2014/34/EU**

3 Supplementary EU - Type Examination Certificate Number: **Baseefa17ATEX0139X/1**

4 Product: **93ZX-FB2-XX-XX-XXXX Fieldbus Barrier System**

5 Manufacturer: **Eaton Electric Ltd.**

6 Address: **Butterfield, Luton, LU2 8DL**

7 This supplementary certificate extends EU – Type Examination Certificate No. Baseefa17ATEX0139X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the product, as modified by this supplementary certificate, has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

SGS Fimko Oy Customer Reference No. **0703**

Project File No. **19/0470**

This document is issued by the Company subject to their General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of their intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**SGS Fimko Oy**

Takomotie 8  
FI-00380 Helsinki, Finland  
Telephone +358 (0)9 696 361  
e-mail [sgs.fimko@sgs.com](mailto:sgs.fimko@sgs.com)  
web site [www.sgs.fi](http://www.sgs.fi)

Business ID 0978538-5 Member of the SGS Group (SGA SA)



D BREARLEY  
Certification  
Manager

**R S SINCLAIR**

Authorised Signatory for SGS Fimko Oy

13 **Schedule**

14 **Certificate Number Baseefa17ATEX0139X/1**

15 **Description of the variation to the Product**

**Variation 1.1**

To permit the use of alternative enclosures.

**Variation 1.2**

To confirm the correct marking as required by the standards listed on the prime certificate:

⊕ II 2(1)GD Ex db eb ib mb [ia Ga] IIC T4 Gb  
Ex tb IIIC T80°C Db

**Variation 1.3**

To permit the certification temperature range as shown on the label to be extended. The equipment is now marked:

$-40^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$

16 **Report Number**

GB/BAS/ExTR19.0310/00

17 **Specific Conditions of Use**

None additional to those listed previously

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
CI9388-FB2-1	1 to 3	2	8.19	93ZX-FB2 Assembly
CI9388-FB2-3	1	2	11.19	93ZX-FB2 Encl Cert Label

These drawings are held with IECEx BAS 17.0112X Issue 1.