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:	**Baseefa13ATEX0257X – Issue 2**
4	Product:	**The Range of Surge Protection Devices "ZoneBarrier" CAT 6**
5	Manufacturer:	**Eaton Electric Limited**
6	Address:	**Great Marlings, Butterfield, Luton, Bedfordshire, LU2 8DL**

7 This re-issued certificate extends EU Type Examination Certificate No. Baseefa13ATEX0257X to apply to product 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 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. **See Certificate History.**

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

EN 60079-0: 2012 + A11: 2013 **EN 60079-11: 2012**

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 :

⟨Ex⟩ II 1G Ex ia IIC T4 Ga (-30°C ≤ Ta ≤ +60°C)

SGS Baseefa Customer Reference No. **0703** Project File No. **17/0748**

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TECHNICAL MANAGER MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa13ATEX0257X – Issue 2**

15 Description of Product

The Surge Protection Devices "ZoneBarrier" CAT 6 are designed to provide surge protection for sensitive electronic Ethernet communication equipment, and are intended to be mounted in a Safe Area immediately following a certified [Ex ia IIC] intrinsically safe source or within an intrinsically safe circuit in the Hazardous Area.

The units do not in themselves provide any voltage or current limiting functions and must be supplied from a suitably certified intrinsically safe source. They provide surge protection for four pairs of communication lines, which must all form part of the same intrinsically safe circuit.

Three units with different nominal operating voltages, ZB24596 - 5V, ZB24598 - 12V and ZB24597 - 57V are included within the range.

The units comprise a gas discharge tube, and a diode array for each of the four pairs of communication lines along with common Varistors and transient suppression diodes mounted on a printed circuit board. This assembly is housed within a plastic enclosure, which is provided with a connector with four pairs of conductors, at each end of the enclosure in addition to a metallic earthing base spring, which provides for mounting on a DIN earthing rail.

The Surge Protection Device "ZoneBarrier" CAT 6 is considered to be coded Ex ia IIC T4 Ga (-30°C ≤ Ta ≤ +60°C) when supplied from a Certified [Ex ia] Group IIC source.

"Unprotected" Connector - Input parameters across any of the four pairs, and with respect to Earth.

ZB24596 – (nominal operating voltage 5V) $U_i = 7V$, $I_i = 0.8A$ $P_i = 1.2W$
ZB24598 – (nominal operating voltage 12V) $U_i = 17V$, $I_i = 0.3A$ $P_i = 1.2W$
ZB24597 – (nominal operating voltage 57V) $U_i = 85V$, $I_i = 0.1A$ $P_i = 1.2W$
All units:-
$C_i = 0$
$L_i = 0$

Surge "Protected" Connector - Output parameters across any of the four pairs, and with respect to Earth.
$U_o \leq U_i$
$I_o \leq I_i$
$P_o \leq P_i$

The output parameters at the Surge "Protected" Connector are equal to the parameters of the device connected to the "Unprotected" Connector and all four pairs of conductors must form part of the same intrinsically safe circuit.

The cable parameters associated with the "Protected" and "Unprotected" Connectors all form part of the same intrinsically safe circuit and will be determined by the source supplying the intrinsically safe circuit.

16 Report Number

GB/BAS/ExTR17.0355/00 held with IECEx Certificate No. IECEx BAS 13.0136X Iss. 2

17 Specific Conditions of Use

1. A Surge Protection Device "ZoneBarrier" CAT 6 must not to be considered as an Intrinsically Safe Barrier and must always be supplied from an Intrinsically Safe source. Also although it may be marked with the term "Isolated Loop" it must not to be considered as providing any Intrinsically Safe Galvanic Isolation.
2. The metallic base spring provides for mounting the Surge Protection Device "ZoneBarrier" CAT 6 units and provides a discharge path to the DIN earthing rail, which must not be locally connected to any safety earth for intrinsically safe interfaces.
3. The Intrinsically Safe connections at both the "protected" and "unprotected" sides of the Surge Protection Device must remain segregated from any non-Intrinsically Safe circuits meeting the requirements of EN60079-11, Clause 6.2.1.

4. The Surge Protection Device "ZoneBarrier" CAT 6 is not capable of withstanding the 500V voltage withstand test for one minute without breakdown to earth. This must be taken into consideration in any installation.

5. When the Surge Protection Device "ZoneBarrier" CAT 6 is mounted within a Hazardous Area the plastic enclosure is considered to present a potential electrostatic risk. Do not rub or clean with solvents.

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
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
1100556	1-6	2	08-JAN-18	Certification Drawing Ethernet LAN\/POE SPD-CAT

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description

None

The above drawing is associated and held with IECEx BAS 13.0136X Iss. 2

20 Certificate History

Certificate No.	Date	Comments
Baseefa13ATEX0257X	14 February 2016	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0: 2012 & EN60079-11: 2012 is documented in Test Report No. GB/BAS/13.0296/00 for project 13/915.
Baseefa13ATEX0257X Issue 1	14 November 2017	To confirm the current designs of the Surge Protection Devices "ZoneBarrier" CAT 6 have been reviewed against the requirements of EN 60079-0: 2012 + A11: 2013 in respect of the differences from EN 60079-0: 2012 and none of the differences effect the equipment. This issue of the certificate also permits the change of manufacturer's name from 'Measurement Technology Limited' to 'Eaton Electric Limited' The assessment is documented in Certification Report No. GB/BAS/ExTR16.0330/00, Project File No. 16/0371, held with IECEx Certificate No. IECEx BAS 13.0136X Iss. 1.

Certificate No.	Date	Comments
Baseefa13ATEX0257X Issue 2	19 January 2018	To permit the use of an alternative TVS component in ZoneBarrier model ZB24597 and corresponding change in the marked working voltage from 48V to 57V. The Ui parameters for the product range are amended to ensure that the Ui parameters are above the intended working voltages. The assessment is document in Certification Report No GB/BAS/ExTR17.0355/00 for project 17/0748.
For drawings applicable to each issue, see original of that issue.		