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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: **Baseefa06ATEX0034X – Issue 6**

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **TP-P**-*-NI Series Surge Protection Devices**

5 Manufacturer: **Eaton Electric Limited**

6 Address: **Great Marlings, Butterfield, Luton, Bedfordshire, LU2 8DL**

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa06ATEX0034X 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 :

Ⓔx II 1G Ex ia IIC T4 / T5 / T6 Ga (-40°C ≤ T_a ≤ See Schedule)

SGS Baseefa Customer Reference No. **0703** Project File No. **16/0371**

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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa06ATEX0034X – Issue 6**

15 **Description of Product**

The TP-P**-*-NI Series Surge Protection Devices are designed to provide protection for sensitive electronic equipment, and are intended to be mounted within a Hazardous Area.

Within the TP-P**-*-NI Series Surge Protection Devices, two different working voltages are available, TP-P48 and TP-P32 but all units have the same safety input parameters for intrinsic safety purposes. Each unit has two active connections and an earth connection, but all connections must form part of the same intrinsically safe circuit.

The TP-P**-*-NI Series devices comprise two circuits which include a three-terminal gas discharge tube, resistors, a silicon avalanche diode, and for the TP-P32 only, a diode bridge circuit, with the components mounted on a printed circuit board. These assemblies are encapsulated within a tubular metal enclosure, open at both ends. One end is provided with flying leads and has a male threaded stub intended for screwing into the wall of other equipment. The three connection wires emerge from the encapsulation and are intended to be terminated within the enclosure. The other end of the tubular metal enclosure is provided with a terminal block within the tube, and a female threaded section for a suitable cable gland. Various different thread forms are available denoted by the suffix N, I or G, to the type number.

The same circuitry can be alternatively fitted in an extended enclosure forming the TP-P**-*-NDI Series Surge Protection Devices. These variants meet the additional requirements for Flameproof Certification to Certificate Number Baseefa06ATEX0035X. These units are dual marked with both certificate numbers and codes.

The following models are included in the range: -

The type number TP-P	**	-*	-NI	
	**	-*	-NDI	Extended enclosure version
	48/32	-*	-NI	Nominal surge protection voltage
	48/32	-*	-NDI	Nominal surge protection voltage with extended enclosure
	**	N/I/G	-NI	Differing thread forms
	**	N/I/G	-NDI	Differing thread forms with extended enclosure

For T6 the operating ambient temperature range is ($-40°C \leq T_a \leq 60°C$).
For T5 the operating ambient temperature range is ($-40°C \leq T_a \leq 80°C$)

TP-P48-*-NI / -NDI or TP-P32-*-NI / -NDI Series Surge Protection Devices Parameters

$U_i = 60V$
$P_i = 1.2W$
$C_i = 0$
$L_i = 0$

$U_o = U_i$
$I_o = I_i$
$P_o = P_i$

The following alternative type numbers may be used for the TP-P**-*-NI Series Surge Protection Devices.

Original type numbers	Alternative type numbers
TP-P32-I-NI	VEGA ŰSB 63-32.G
TP-P32-N-NI	VEGA ŰSB 63-32.N
TP-P48-I-NI	VEGA ŰSB 63-48.G
TP-P48-N-NI	VEGA ŰSB 63-48.N

The TP-P**-*-NI, VEGA ÜSB 63-32/48.G/N or TP-P**-*-NDI Surge Protection Device for use within a FISCO System have the following entity parameters:-

U_i = 17.5V
I_i = 380mA
P_i = 5.32W
C_i = 0
L_i = 0

U_o = U_i
I_o = I_i
P_o = P_i

For T4 the operating ambient temperature range is ($-40°C \leq T_a \leq 60°C$)

The TP-P**-*-NI, VEGA ÜSB 63-32/48.G/N or TP-P**-*-NDI Surge Protection Device for use within any other intrinsically safe circuit have the following entity parameters:-

U_i = 30V
I_i = 380mA
P_i = 1.2W For T6 the operating ambient temperature range is ($-40°C \leq T_a \leq 60°C$)
P_i = 1.2W For T5 the operating ambient temperature range is ($-40°C \leq T_a \leq 80°C$)
P_i = 5.32W For T4 the operating ambient temperature range is ($-40°C \leq T_a \leq 60°C$)
C_i = 0
L_i = 0

U_o = U_i
I_o = I_i
P_o = P_i

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. The apparatus is to be installed such that the flying leads and the terminal block are afforded a degree of protection of at least IP54.

2. Although all versions of the Surge Protection Devices will meet the 500V test to the metal case, the electrical circuits within the Surge Protection Devices are not capable of withstanding the 500V test to the Green/Yellow wire for one minute without breakdown. This must be taken into consideration in any installation.

3. These devices are not provided with an external connection facility for an earthing or bonding conductor.

4. The certification label must be permanently marked on installation to show which certification concept applies.

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	Compliance
1.2.7	Protection against other hazards (LVD type requirements, etc.)	Manufacturer responsibility
1.2.8	Overloading of equipment (protection relays, etc.)	User/Installer responsibility
1.4.1	External effects	User/Installer responsibility
1.4.2	Aggressive substances, etc.	User/Installer responsibility

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
1100463*	1 of 10	G	8.16	TP-P** Certification drawing for ATEX - Index sheet
1100463	2 of 10	G	8.16	TP-P**-*-NI Certification Label
1100463*	3 of 10	G	8.16	TP-P**-*-NDI Certification Label
1100463*	4 of 10	G	8.16	TP-P** Alternative Vega NI Certification Label
1100463*	5 of 10	G	8.16	TP-P** Common Circuit Diagram
1100463*	6 of 10	G	8.16	TP-P** Common Internal Components
1100463*	7 of 10	G	8.16	TP-P**-*-NI Enclosure
1100463*	8 of 10	G	8.16	TP-P**-*-NDI Enclosure
1100463*	9 of 10	G	8.16	TP-P**-*-NI Full Assembly
1100463*	10 of 10	G	8.16	TP-P**-*-NDI Full Assembly

Drawings marked * are also associated with Baseefa06ATEX0035X Iss. 4

Current drawings which remain unaffected by this issue:

None

20 Certificate History

Certificate No.	Date	Comments
Baseefa06ATEX0034X	28 September 2006	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014:1997+A!&A2, EN 50020:2002; EN 60079-26:2004 is documented in Test Report No. 06(C)0103, held with Baseefa06ATEX0034X.
Baseefa06ATEX0034X/1	23 November 2006	To permit the introduction of an alternative, extended enclosure, designated the TP-P**-*-NDI Series Surge Protection Devices, where the last part of the type number has changed from NI to NDI, that meet the additional requirements for Flameproof Certification to Certificate Number Baseefa06ATEX0035X. The internal electronics remains identical to the original units. These units are dual marked with both certificate numbers and codes. The terminal parameters remain unchanged.
Baseefa06ATEX0034X/2	18 December 2006	To permit the existing input parameters to be extended, to include parameters suitable for use within **either** the Fieldbus Intrinsically Safe Concept (FISCO) system to IEC 60079-27 Ed. 1.0 TS **or** to be used within any other intrinsically safe circuit, with corresponding changes to the permitted voltage, current, power, temperature classification and upper ambient temperature limits. The internal electronics and the enclosure remain identical to the original units. The associated assessment is documented in Certification Report No.04(C)0056, held with Baseefa04ATEX0251X.
Baseefa06ATEX0034X/3	2 December 2008	To permit the introduction of an alternative manufacturing location and minor changes to the certification marking.
Baseefa06ATEX0034X/4	17 September 2010	To permit minor changes to the specification of the enclosure material which does not affect the original assessment.

Certificate No.	Date	Comments
Baseefa06ATEX0034X/5	28 February 2012	The original range of TP-P**-*-NI Series Surge Protection Devices, the dual certified alternative type numbers VEGA ÜSB 63-32/48.G/N Surge Protection Devices and also the dual certified TP-P**-*-NDI Series Surge Protection Devices are all considered to comply with the requirements of IEC60079-0:2011, EN60079-11:2012 and EN60079-26:2007 and may be marked:- Ⓔx II 1G Ex ia IIC T4 / T5 / T6 Ga For the TP-P**-*-NI, VEGA, ÜSB 63-32/48.G/N or TP-P**-*-NDI Surge Protection Devices, the parameters and ambient temperature limits remain as shown in Baseefa06ATEX0034X/2.
Baseefa06ATEX0034X Issue 6	22 November 2017	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current designs meet the requirements of EN 60079-0: 2012 + A11: 2013 & EN 60079-11: 2012. The certificate also permits the manufacturer's name to be changed on page 1 of the certificate and on the equipment marking. The associated assessment is documented in Certification Report No. GB/BAS/ExTR16.0288/00, held with IECEx BAS 07.0045X.
For drawings applicable to each issue, see original of that issue.		