

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 **Baseefa04ATEX0303X – Issue 3**
Number:

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: **SLP 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. Baseefa04ATEX0303X 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 :

⊕ II 1G Ex ia IIC T4 Ga (-30°C ≤ Ta ≤ See Schedule)

SGS Baseefa Customer Reference No. **0703**

Project File No. **16/0371**

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SGS Baseefa Limited

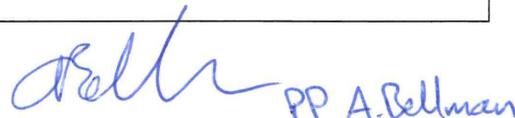
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R S SINCLAIR

TECHNICAL MANAGER

On behalf of SGS Baseefa Limited

13

Schedule

14

Certificate Number Baseefa04ATEX0303X – Issue 3

15 Description of Product

The SLP Series Surge Protection Devices are designed to provide protection for sensitive electronic equipment, and it is intended to be mounted within a Hazardous Area. Three different break-over voltages, SLP07D - 7V, SLP16D - 16V and SLP32D - 32V are available but all units have the same safety input parameters for intrinsic safety purposes. Each unit has four active channels and an earth connection, but all channels must form part of the same intrinsically safe circuit.

The units comprise four series resistors, four diode bridge circuits, two 3-terminal gas discharge tubes and one or two silicon avalanche diodes mounted on a printed circuit board. This assembly is housed within an MTL7700 Series plastic enclosure, which is provided with four input and four output terminals in addition to a base spring, which provides the earth connection and the mounting for a DIN earthing rail. The lower part of the enclosure is encapsulated to consolidate the mounting arrangement.

All units are marked Ex II 1 G Ex ia IIC T4 Ga For the Ambient Temperature ranges, see below.

The parameters for all SLP Series Surge Protection Devices are:-

Input : Field Terminals 1 to 4

$$U_i = 60V$$

$$P_i = 1W \quad (-30^\circ C \leq T_a \leq 80^\circ C) \text{ or}$$

$$P_i = 1.2W \quad (-30^\circ C \leq T_a \leq 60^\circ C) \text{ or}$$

$$P_i = 1.3W \quad (-30^\circ C \leq T_a \leq 40^\circ C)$$

$$C_i = 0$$

$$L_i = 0$$

Output : Surge Protected Terminals 5 to 8

$$U_o = U_i$$

$$I_o = I_i$$

$$P_o = P_i$$

The range of SLP Series Surge Protection Devices to be used as Dual Channel IS Surge Protection Devices when the maximum permitted signal voltage is reduced. With the signals limited to $U_i = 30V$ per channel, the two channels may be considered as separate intrinsically safe circuits. This alternative use of the SLP Series Surge Protection Devices applies to the range of three different nominal break-over voltages, SLP07D - 7V, SLP16D - 16V and SLP32D - 32V, but all units have the same safety input parameters for intrinsic safety purposes.

The parameters for each channel, for the range of SLP Series Surge Protection Devices are:-

Input : Field Terminals 1 & 2 (3 & 4)

$$U_i = 30V$$

$$P_i = 1W \quad (-30^\circ C \leq T_a \leq 80^\circ C) \text{ or}$$

$$P_i = 1.2W \quad (-30^\circ C \leq T_a \leq 60^\circ C) \text{ or}$$

$$P_i = 1.3W \quad (-30^\circ C \leq T_a \leq 40^\circ C)$$

$$C_i = 0$$

$$L_i = 0$$

The terminal identification for the second channel is shown in brackets and each channel may be considered as a separate intrinsically safe circuit.

Output : Surge Protected Terminals 5 & 6 (7 & 8)

$$\begin{aligned}U_o &= U_i \\I_o &= I_i \\P_o &= P_i\end{aligned}$$

The surge protected output parameters are equal to the parameters of the device connected to the field terminals.

16 Report Number

None

17 Specific Conditions of Use

1. The plastic enclosure may present an electrostatic risk and must not be rubbed with a dry cloth or cleaned with solvents.
2. The SLP Series Surge Protection Devices will not meet the 500V insulation requirements to earth, therefore suitable precautions must be taken when installing the apparatus.

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.

Clause	Subject	Compliance
1.4.1	External effects	The Purchaser should make the manufacturer aware of such issues.
1.4.2	Aggressive substances, etc.	The Purchaser should make the manufacturer aware of such issues.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
1100437	1	D	8.16	Index Sheet
1100437	2	D	8.16	Electronics Diagram & Components
1100437	3	D	8.16	Printed Circuit Board
1100437	4	D	8.16	Internal Assembly
1100437	5	D	8.16	Mechanical Assembly
1100437	6	D	8.16	External Cases
1100437	7	D	8.16	Product Labeling
1100437	8	D	8.16	Product labeling

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
None				

20 Certificate History

Certificate No.	Date	Comments
Baseefa04ATEX0303X	01 September 2004	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014:1997 + A1 & A2, EN50020: 2002, EN50284: 1999 is documented in Test Report No. 04(C)0055, Project File No. 04/0055
Baseefa04ATEX0303X/1	11 October 2004	Correction of dimensional information on drawings not affecting the assessment.
Baseefa04ATEX0303X/2	20 March 2012	To permit the range of SLP Series Surge Protection Devices to be used as Dual Channel IS Surge Protection Devices when the maximum permitted signal voltage is reduced. The assessment also confirms that the design meets the requirements of EN60079-0: 2012 and EN60079-11: 2012 and is documented in Test Report 12(C)0150, Project File No. 12/0150
Baseefa04ATEX0303X Issue 3	12 June 2017	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0: 2012 + A11: 2013. The certificate also permits the manufacturer's name to be changed on the certificate and the equipment marking. No other changes are made to the equipment design.

For drawings applicable to each issue, see original of that issue.