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## EC-TYPE EXAMINATION CERTIFICATE

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**Equipment or Protective System Intended for use  
in Potentially Explosive Atmospheres  
Directive 94/9/EC**

3

EC-Type Examination Certificate Number : **BAS00ATEX2162X**

4

Equipment or Protective System: **TYPE P-Sh-N-Ex ANTI-STATIC BAR**

5

Manufacturer: **SIMCO (NEDERLAND) B.V.**

6

Address: **Aalsvoort 74, NL-7241 MB Lochem, Netherlands**

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This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8

The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report N°

**00(C)0392 dated 27 September 2000**

9

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

**EN 50014: 1997 + Amds 1 & 2**

**EN 50028: 1988**

**SFA 3009: 1985**

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 equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

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This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

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The marking of the equipment or protective system shall include the following:-



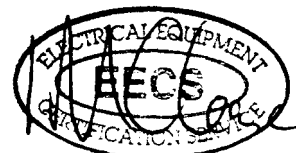
**II 2G**

**Ex sm IIA T4**

This certificate may only be reproduced in its entirety and without any change, schedule included.

File No: **EECS 2763/03/002**

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



**Electrical Equipment Certification Service**  
Health and Safety Executive  
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom  
Tel: 01298 28000 Fax: 01298 28244

**I M CLEARE**  
DIRECTOR  
16 October 2000



13 **Schedule**

14 **EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX2162X**

15 **Description of Equipment or Protective System**

The Type P-Sh-N-Ex Antistatic Bar with a minimum bar length of 50mm up to a maximum length of 6000mm is designed for neutralising static charges which can build up on films of material during processing. The bar is fed from an integral high voltage transformer with different primary ratings between 100V and 460V, and a secondary of 6.4kV at 50 or 60Hz. The maximum secondary current is 3mA.

The bar contains two high tension cables capacitively coupled to a series of sharp points - discharge points - equally spaced by means of metal sleeves and plastic spacers along the length of the cable. PVC over tubes cover the assembly with only the rows of discharge points being visible. The bar is arranged with two rows of discharge points held between insulating end pieces and spacing brackets with an aluminium tube between the two rows and two aluminium profiles outside the three tubes. The aluminium tube and profiles are at earth potential and fixed within or to the end pieces and spacing brackets to give rigidity to the assembly.

The high tension cables are encapsulated into the high voltage transformer assembly fixed to one end of the bar. The high voltage transformer is completely encapsulated with an epoxy resin compound and clad by means of a 1mm thick steel sheet. An integral cable completes the assembly and allows for the connection to a mains supply. A spare core in the cable, which is connected across a part of the low voltage end of the secondary of the transformer, can be used for connection to a remote neon indicator.

Thermal protection is assured by means of a 121°C thermal fuse encapsulated with the transformer and wired in series with the primary circuit.

16 **Report No.**

00(C)0392

17 **Special Conditions for Safe Use**

1. The supply to the transformer shall be protected by a fuse with a 4000A rupturing capacity.
2. The bar shall be mounted at a distance of between 50mm and 200mm from the material to be neutralised.
3. The bar shall be mounted in such a manner that the discharge assemblies are not subject to mechanical damage.
4. The integral cable shall be securely fixed to prevent mechanical damage.



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**Schedule**

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**EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX2162X**

**18. Essential Health and Safety Requirements**

| Essential Health & Safety Requirements not covered by Standards listed at (9) |                            |            |
|---|----------------------------|------------|
| Clause  | Subject                    | Compliance |
| 1.02  | Operating faults           | 4.4        |
| 1.3.1   | Different ignition sources | 4.4        |
| 1.3.2   | Static Electricity         | 4.4        |

**19 DRAWINGS**

| Number   | Issue | Date     | Description                       |
|----------|-------|----------|-----------------------------------|
| 03124100 | B     | 17/3/00  | Isolator KE P-Sh-N                |
| 03124110 | B     | 17/3/00  | Isolator DE P-Sh-N bar            |
| 03124120 | C     | 27/3/00  | Isolator steunblok P-Sh-N staaf   |
| 03124130 | A     | 15-5-92  | Isolator vulstuk P-Sh-N staaf     |
| 03144050 | A     | 4/4/00   | Wartel P-Sh-Ex                    |
| 03994955 | A     | 24-9-92  | Punt 1.45x6.00                    |
| 14700350 |       | 17/4/00  | Airknife SAK08 with P-Sh-N-Ex bar |
| 15961000 |       | 5/9/00   | P-Sh-N-Ex kompeet +transvector    |
| 15991000 | A     | 4/4/00   | P-Sh-N-Ex kompeet                 |
| 15991010 | A     | 4/9/00   | P-Sh-N-Ex samenstelling           |
| 15991020 | B     | 4/4/00   | P-Sh-N-Ex staaf samenstelling     |
| 15991090 | A     | 4/4/00   | Tabel trafo's P-Sh-N-Ex           |
| 15992075 |       | 4-4-00   | Binnenstaaf P-Sh-N-Ex             |
| 15993205 |       | 4-4-00   | Isolator KE P-Sh-N-Ex             |
| 15994000 |       | 6-4-00   | Transfer transparent P-Sh-N-Ex    |
| 15994005 |       | 4/9/00   | Label typeplaat P-Sh-N-Ex         |
| 15994100 | A     | 4/4/00   | Kast P-Sh-N-Ex                    |
| 15994110 | B     | 4/4/00   | Montage frame P-Sh-N-Ex           |
| 15994120 | B     | 4/4/00   | Desksel met beugel P-Sh-N-Ex      |
| 15994200 | B     | 8/2/00   | Sluitplaat kast P-Sh-N-Ex         |
| 15995000 | A     | 4/4/00   | Schematics P-Sh-N-Ex              |
| 70504308 | A     | 10/5/93  | PVC buis 10.6 x 1.5 mm            |
| 83962100 | A     | 19/12/94 | Trafo 230V / 50Hz - 6.4kV         |
| 83962101 | A     | 19-12-94 | Trafo 230V / 50Hz - 6.4kV         |
| 85200005 | A     | 7/7/93   | Lamp signaal 230V / 1W helder     |
| 88240415 | A     | 19/12/94 | Snoer, NWPK-4G 1.5mm <sup>2</sup> |
| 88410100 | B     | 11-3-97  | High voltage cable no. 12         |
| 90062100 | A     | 16/2/93  | Adhesive AY - 103                 |



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**Schedule**

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**EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX2162X**

| <b>Number</b> | <b>Issue</b> | <b>Date</b> | <b>Description</b> |
|---------------|--------------|-------------|--------------------|
| 90062105      | A            | 16/2/93     | Hardener HY 956    |
| 90062110      |              | 20-12-94    | Resin 10D 8DT-4KW  |

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**BASEEFA List Keywords**  
2ANTSBAR