



British Approvals Service for Electrical  
Equipment in Flammable Atmospheres

## *Certificate of Conformity*

- 1.
2. **BAS No Ex 93C2323**
3. This certificate is issued for the intrinsically safe electrical system:  
**A VISILARM VA2 OR VA2B SYSTEM**
4. submitted for certification by:  
**WEIDMULLER (KLIPPON MICROSYSTEMS) LIMITED**  
**SAFETY TECHNOLOGY PRODUCTS**  
of West Maling, Kent, ME19 6EX
5. This electrical system and any acceptable variation thereto is specified in the Schedule to this Certificate and the documents therein referred to.
6. BASEEFA being an Approved Certification Body in accordance with Article 14 of the Council Directive of the European Communities of 18 December 1975 (76/117/EEC) certifies that the system has been found to comply with harmonised European Standard

EN50 039 (1980)

and has successfully met the examination and test requirements as recorded in confidential Report No 93(C)193 dated 27 July 1993

7. The system is coded EEx ia IIC T6.

File No: EECS 0932/02/006



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SHM

**I M CLEARE**  
**DIRECTOR EECS**  
12 October 1993



**Electrical Equipment Certification Service**  
Health and Safety Executive  
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom  
Tel: 0298 26211 Fax: 0298 79514 Telex: 668113 RLSD G





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**Certificate BAS No. Ex 93C2323**

8. It is the responsibility of the system certificate holder to supply the relevant documentation to the installer of the intrinsically safe electrical system referred to in this certificate.

The installer has the responsibility to ensure that the system conforms to the specification laid down in the Schedule to this certificate and has satisfied routine verifications and tests specified therein.

9. This system may be marked with the Distinctive Community Mark specified in Annex II to the Commission Directive of 16 January 1984 (Doc 84/47/EEC). A facsimile of this mark is printed on sheet 1 of this certificate.

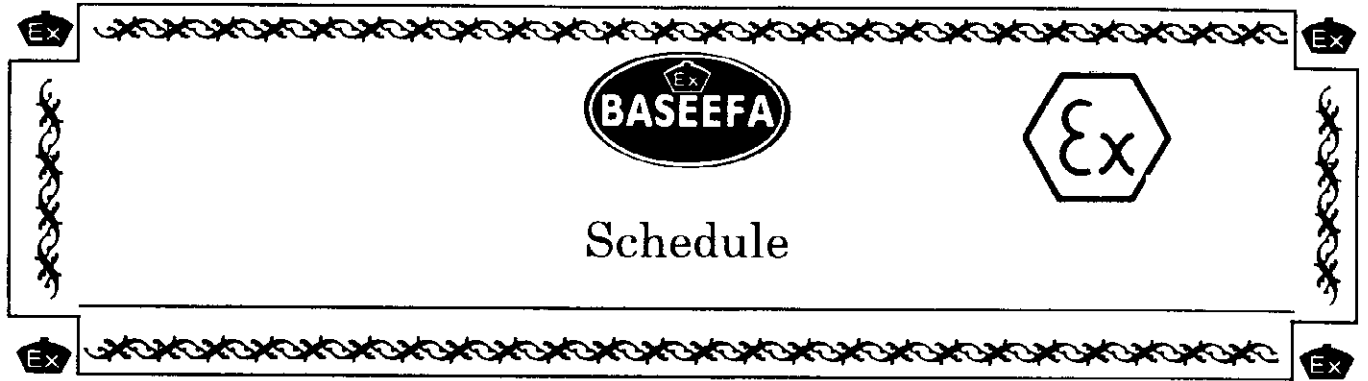
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This certificate is granted subject to conditions applicable to the Approval Service, it does not necessarily indicate that the apparatus may lawfully be used in particular industries or circumstances.



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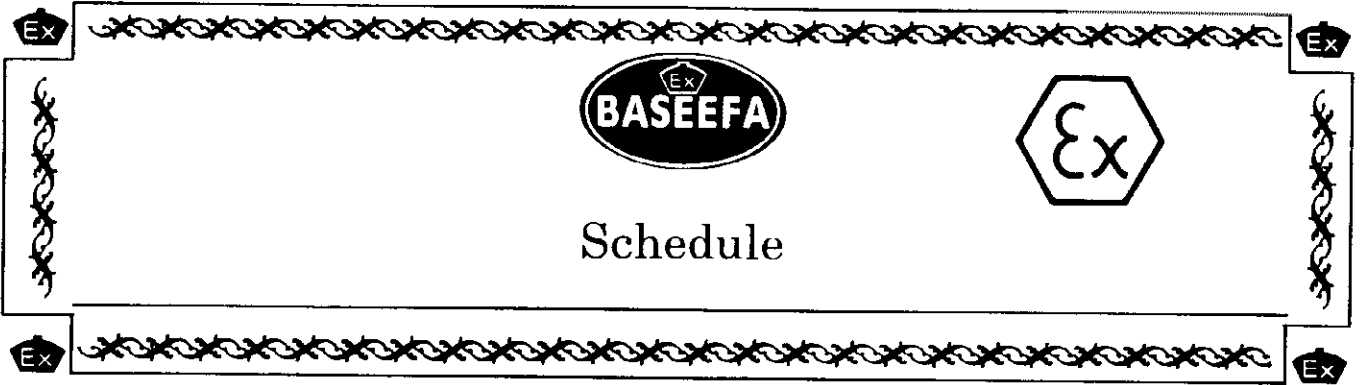


Certificate of Conformity BAS No. Ex 93C2323

**SYSTEM**

A Visilarm VA2 or VA2B system comprising of:-

1. Apparatus located in the non-hazardous area (safe area).
  - 1.1 Any single channel Shunt Zener Diode Safety Barrier, certified by BASEEFA or any EEC approved body to [EEx ia] IIC having output parameters less than  $U_{\max:\text{out}} = 28\text{V}$ ,  $I_{\max:\text{out}} = 320\text{mA}$  and  $W_{\max:\text{out}} = 0.82\text{W}$ .
  - 1.2 A Euroblock Multiplexer and Power Isolator Model E1210 or E1220 certified by SCS to [EEx ia] IIC, SCS Certificate No. Ex 93C2021 having the following output parameters  $U_{\max:\text{out}} = 16.9\text{V}$ ,  $I_{\max:\text{out}} = 159\text{mA}$  and  $W_{\max:\text{out}} = 0.68\text{W}$ ; or  $U_{\max:\text{out}} = 27\text{V}$ ,  $I_{\max:\text{out}} = 93\text{mA}$  and  $W_{\max:\text{out}} = 0.8\text{W}$ ; respectively.
  - 1.3 Apparatus which is unspecified except that it must not be supplied from nor contain in normal or abnormal conditions a source of potential with respect to earth in excess of 250 volts r.m.s. or 250 volts d.c.
2. Apparatus which may be located in the Hazardous Area.
  - 2.1 A Visilarm Type VA2 OR VA2B to BASEEFA Certificate No Ex 93C2235.
3. Permissible Interconnecting Cables.
  - 3.1 The capacitance and either the inductance OR the inductance to resistance ratio (L/R) of the load connected to the output terminals of the source must not exceed the values shown on the appropriate Barrier or Interface certificate.



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The cable used may be a separate cable, or may be installed either as a separate earth screened circuit within a Type A or within a Type B multicore cable (as defined in clause 5.3 of EN50 039) provided that the peak voltage of any circuit within the Type B multicore cable does not exceed 60 V.

**DRAWINGS**

Number	Issue	Date	Description
ST 2592	B	1.9.93	Visilarm system



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### *Certificate of Conformity Variation*

THIS IS TO CERTIFY THAT CERTIFICATE BAS NO Ex 93C2323

Held by WEIDMULLER (KLIPPON MICROSYSTEMS) LIMITED  
SAFETY TECHNOLOGY PRODUCTS  
of West Maling, Kent, ME19 6EX

for the VISIARM VA2 OR VA2B SYSTEM

is hereby extended to apply to the system conforming to the specification set out in the Schedules of the said Certificate but having the variations specified in the attached Schedule.

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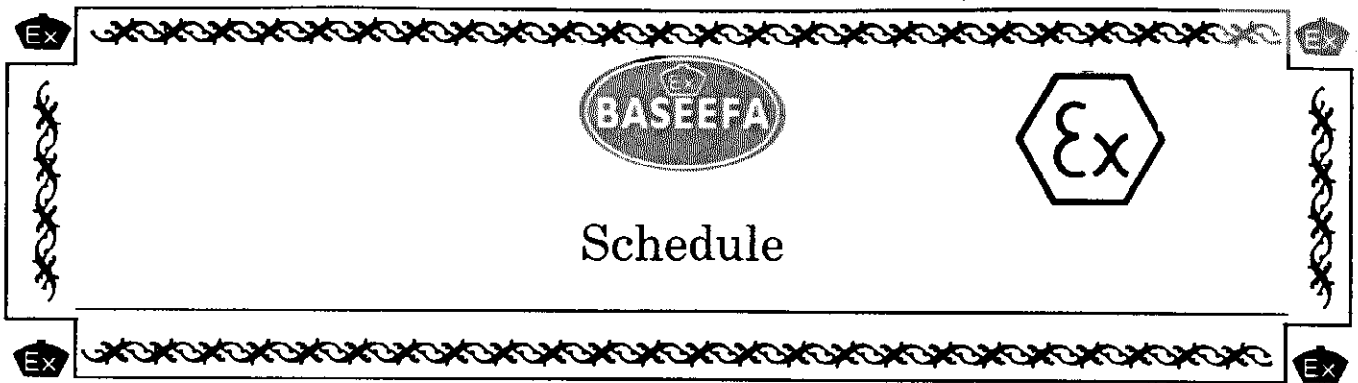
CERTIFICATE BAS NO Ex 93C2323/1  
Sheet 1/2  
SHM

I M CLEARE  
DIRECTOR EECS  
16 March 1994



**Electrical Equipment Certification Service**  
Health and Safety Executive  
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom  
Tel: 0298 26211 Fax: 0298 79514 Telex: 668113 RLSD G





Certificate of Conformity BAS No Ex 93C2323/1

**VARIATION ONE**

To permit the addition of any like polarity single channel Polarised Diode Return Safety Barrier, certified by BASEEFA or any EEC approved body to [EEx ia] IIC having output parameters not exceeding  $U_z$  or  $U_{max:out} = 28V$ , when the system is supplied from a Single Channel Shunt Zener Diode Safety Barrier in paragraph 1.1 of the original Schedule.

This Diode Return Barrier must not be used with either of the alternative power sources as listed in paragraph 1.2 of the original Schedule.

This variation also permits the option of either one or two Visilarms Type VA2 or VA2B, to BASEEFA Certificate No 93C2235, to be connected in parallel to any source from paragraph 1.1 or 1.2 of the original Schedule, or the two channels of Zener Barriers as above.

Neither of the above changes affects the original safety assessment or the permitted interconnecting cables.

**DRAWINGS**

Number	Issue	Date	Description
ST 2592	C	8.3.94	Visilarm System