

1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: Sira 00ATEX1021X

4 Equipment: VL51A Range of Luminaires

5 Applicant: Victor Products Ltd

6 Address: New York Way
New York Industrial Park
Newcastle upon Tyne
NE27 0QF
United Kingdom

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

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number R51X6148A.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

- EN 50014:1997 (including amendments 1 and 2)
- EN 50018:1994
- EN 50281-1-1:1998

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.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2 GD
EEx d IIB T6 (Ta = -20°C to +55°C) or EEx d IIC T6 (Ta = -20°C to +55°C) or
EEx d IIB T6 (Ta = -20°C to +40°C) or EEx d IIB T5 (Ta = -20°C to +55°C)

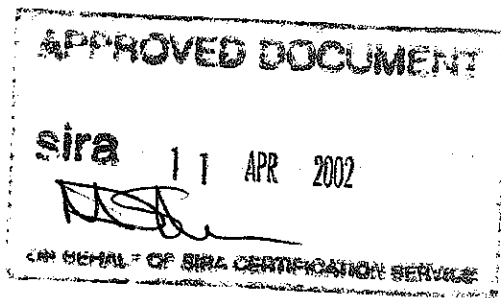
M D Shearman
Certification Manager

Project Number 51X6148
Date 24 February 2000
C. Index 05

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Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England
Tel: +44 (0) 1244 670900 Fax: +44 (0) 1244 681330
Email: exhazard@siratc.co.uk



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 00ATEX1021X

13 DESCRIPTION OF EQUIPMENT

The VL51A Range of Luminaires comprises a lamp glass assembly with two end caps. The design allows the installation of either a single or two T8 fluorescent bi-pin lamps. The end caps are manufactured in aluminium alloy and are sealed to the glass tube by cement, Robnor Resins Type E116F. The integrity of the cement seal is maintained by the external lamp reflector, which extends over the length of the lamp glass assembly and is permanently attached to each end cap. One end caps is designed to accommodate a ballast housing that is located by means of a conical spigot joint. The ballast housing is secured by means of two M10 x 35 stainless steel screws. The ballast housing is manufactured in aluminium alloy and contains various types of lamp control gear that are potted in place. Alternatively, on the 8 W version, the lamp ballast may be installed on the gear tray behind the fluorescent tube/s to allow connection to UPS systems. Either two M25 or M20 threaded entry points are provided in the ballast housing wall for the installation of suitable cable or conduit entry devices.

The range of luminaires is defined as follows

Model	Length (feet)	Certification Code
8 W	1	EEx d IIB T6 (Ta = -20°C to +55°C) or EEx d IIC T6 (Ta = -20°C to +55°C)
18 W	2	EEx d IIB T6 (Ta = -20°C to +55°C) or EEx d IIC T6 (Ta = -20°C to +55°C)
36 W	4	EEx d IIB T6 (Ta = -20°C to +40°C) or EEx d IIB T5 (Ta = -20°C to +55°C)
58 W	5	EEx d IIB T6 (Ta = -20°C to +40°C) or EEx d IIB T5 (Ta = -20°C to +55°C)
70 W	6	EEx d IIB T6 (Ta = -20°C to +40°C) or EEx d IIB T5 (Ta = -20°C to +55°C)

14 DESCRIPTIVE DOCUMENTS

14.1 Drawing No.	Rev.	Sheet	Date	Title
LA315	1	1 of 1	18 Jan 00	Type VL51A Flameproof Fluorescent Luminaires

14.2 Report No. R51X6148A

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

15.1 The VL51A Range of Luminaires shall only be installed in areas where there is a low risk of impact.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSR'S)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in Report No. R51X6148A.

17 CONDITIONS OF CERTIFICATION

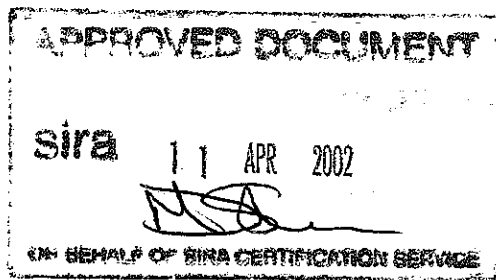
17.1 The use of this certificate is subject to the Regulations Applicable to Holders of SCS Certificates.

Date 24 February 2000

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Rake Lane, Eccleston, Chester, CH4 9JN, England
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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 00ATEX1021X

- 17.2 Each enclosure shall be subjected to a routine overpressure test in accordance with the table below. In all cases the pressure shall be maintained for at least 10 s as required by clause 16.1 of EN 50018:1994. There shall be no permanent deformation or damage to the enclosure.

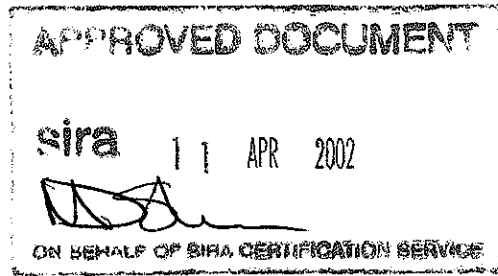
Model	Length (feet)	Hydrostatic Overpressure Test Pressure Applied IIB		Hydrostatic Overpressure Test Pressure Applied IIC	
		Bar	Lbf/in ²	Bar	Lbf/in ²
8 W	1	8.30	120.35	11.23	162.84
18 W	2	8.30	120.35	12.06	174.87
36 W	4	7.05	102.23		
58 W	5	9.84	142.68		
70 W	6	12.24	177.48		

Date 24 February 2000

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER Sira 00ATEX1021X **Dated** 24 February 2000

VARIATION NUMBER 1 (ONE) **Dated** 27 April 2001
Reissued 14 May 2001

VARIATION TO EQUIPMENT

To permit:

- 1 The ambient temperature range that corresponds to the T6 temperature classification of the 36 W, 58 W and 70 W models to be increased as shown below:

Model	Original T6 ambient temperature range	New T6 ambient temperature range
36 W	(Ta = -20°C to +40°C)	(Ta = -20°C to +53°C)
58 W	(Ta = -20°C to +40°C)	(Ta = -20°C to +49°C)
70 W	(Ta = -20°C to +40°C)	(Ta = -20°C to +44°C)

DESCRIPTIVE DOCUMENTS

Number	Sheet	Rev	Date	Description
LA315	1 of 1	2	14 Mar 00	Type VL51A Flameproof Fluorescent Luminaires

ADDITIONAL CONDITIONS OF CERTIFICATION

None

Reissued 11 May 2001

To permit a redraft of this variation onto the correct form.

M D Shearman
Certification Manager

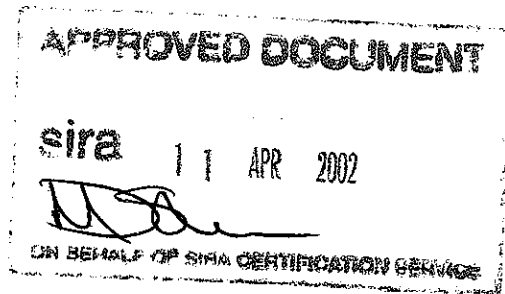
File No 51V6749

Report No. NA

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Rake Lane, Eccleston, Chester, CH4 9JN, England
Tel: +44 (0) 1244 670900 Fax: +44 (0) 1244 681330
Email: exhazard@siratc.co.uk



sira
Certification Service

EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER Sira 00ATEX1021X **Dated** 24 February 2000

VARIATION NUMBER 2 (TWO) **Dated** 5 October 2000

VARIATION TO EQUIPMENT

To permit:

- 1 The 18 W, 36 W and 58 W luminaires to incorporate a battery pack thereby becoming a range of emergency luminaires designated as type VL52A that have the following certification codes:

Model	Certification Code
18 W	EEx de IIB T6 ($T_a = -20^{\circ}\text{C}$ to $+55^{\circ}\text{C}$) or EEx de IIC T6 ($T_a = -20^{\circ}\text{C}$ to $+55^{\circ}\text{C}$)
36 W	EEx de IIB T6 ($T_a = -20^{\circ}\text{C}$ to $+52^{\circ}\text{C}$) or EEx de IIB T5 ($T_a = -20^{\circ}\text{C}$ to $+55^{\circ}\text{C}$)
58 W	EEx de IIB T6 ($T_a = -20^{\circ}\text{C}$ to $+48^{\circ}\text{C}$) or EEx de IIB T5 ($T_a = -20^{\circ}\text{C}$ to $+55^{\circ}\text{C}$)

DESCRIPTIVE DOCUMENTS

Number	Sheet	Rev	Date	Description
LA320	1 of 1	-	27 Jun 00	Type VL52A Flameproof Emergency Fluorescent Luminaire

ADDITIONAL CONDITIONS OF CERTIFICATION

None

M D Shearman
Certification Manager

File No 51A7035

Report No R51A7035A

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Email: exhazard@siratc.co.uk

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER Sira 00ATEX1021X **Dated** 24 February 2000

VARIATION NUMBER 3 (THREE) **Dated** 27 April 2001

VARIATION TO APPARATUS

To permit:

- 1 The range of type VL52A Emergency Fluorescent Luminaires to include 1' single and 1' double tube 8 W models.

DESCRIPTIVE DOCUMENTS

Number	Sheet	Rev	Date	Description
LA320	1 of 1	2	27 Jun 00	Type VL52A Flameproof Emergency Fluorescent Luminaire

ADDITIONAL CONDITIONS OF CERTIFICATION

None

File No 51V7804

Report No. NA

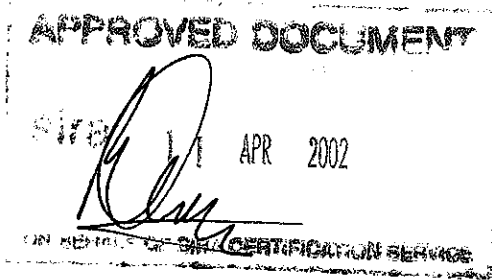
Ian D Knott
Chief Executive

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Rake Lane, Eccleston, Chester, CH4 9JN, England
Tel: +44 (0) 1244 670900 Fax: +44 (0) 1244 681330
Email: exhazard@siratc.co.uk

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER Sira 00ATEX1021X **Dated** 24 February 2000

VARIATION NUMBER 3 (THREE) **Dated** 27 April 2001
Re-issued 13 November 2001

VARIATION TO APPARATUS

To permit:

- 1 The range of type VL52A Emergency Fluorescent Luminaires to include 1' single and 1' double tube 8 W models; the relevant certification code to be EEx de IIB T6 (Ta = -20°C to +55°C) or EEx de IIC T6 (Ta = -20°C to +55°C)
- 2 The modification of condition of certification clause 17.2.

DESCRIPTIVE DOCUMENTS

Number	Sheet	Rev	Date	Description
LA320	1 of 1	3	17 Sep 01	Type VL52A Flameproof Emergency Fluorescent Luminaire

ADDITIONAL CONDITIONS OF CERTIFICATION

- 17.2 Each enclosure shall be subjected to a routine overpressure test in accordance with the table below. In all cases the pressure shall be maintained for at least 10 s as required by clause 16.1 of EN 50018:1994. There shall be no permanent deformation or damage to the enclosure.

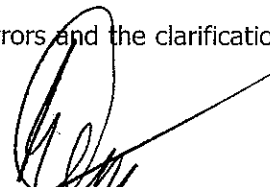
Model	Length (feet)	Hydrostatic Overpressure Test Pressure Applied IIB		Hydrostatic Overpressure Test Pressure Applied IIC	
		Bar	Lbf/in ²	Bar	Lbf/in ²
8 W VL52A	1	8.30	120.35	12.90	187.70
8 W VL52A	1	8.30	120.35	11.23	162.84
18 W VL51A & VL52A	2	8.30	120.35	12.06	174.87
36 W VL51A & VL52A	4	7.05	102.23		
58 W VL51A & VL52A	5	9.84	142.68		
70 W VL51A	6	12.24	177.48		

Re-issued 13 November 2001

To permit the amendment of the certified drawing to correct typographical errors and the clarification of the certification code and the conditions of certification.

File No 51V8351

Report No. NA



R Cooper Eng LInstMC
Deputy Chief Executive

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER Sira 00ATEX1021X **Dated** 24 February 2000

VARIATION NUMBER 4 (FOUR) **Dated** 16 January 2004

VARIATION TO EQUIPMENT

To permit:

- 1 The ballast housing may alternatively be supplied tapped with the nearest equivalent, alternative cable entry threadform types listed below, to the standard metric type supplied compliant to BS3643:1981, medium fit (6H) for internal threads:

NPT to ANSI/ASME B1.20.1:1983, gauging to clause 8.2 for internal threads

NPT to USAS B2.1:1968, gauging to clause 37 for internal threads

ISO to 7/1:1982, gauging to ISO 7/2 clause 8.2 for internal threads (Rc)

BSPT to BS 21:1985, standard threads only as clause 5.4, gauging to clause 5.2, system A

BSPP to BS 2779:1986 for internal threads

PG to DIN 40430:1971

ET (conduit) to BS 31:1940 (1979) Table A

DESCRIPTIVE DOCUMENTS

Number	Sheet	Rev	Date	Description
LA315	1 of 1	3	27 Nov 2003	Type VL51A Flameproof Fluorescent Luminaires

File No 53A11082

Report No. R53A11082A

D R Stubbings BA MIEE
Certification Manager

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER Sira 00ATEX1021X **Dated** 24 February 2000

VARIATION NUMBER 5 (FIVE) **Dated** 02 April 2004

VARIATION TO EQUIPMENT

To permit:

- 1 The O ring sealing gasket in the ballast housing to be within an alternative internal chamfered recess, improving the ingress protection rating to IPX8. The enclosure was tested for 24 hours at a depth of 25 m.

DESCRIPTIVE DOCUMENTS

Number	Sheet	Rev	Date	Description
LA315	1 of 1	4	05 Feb 04	Type VL51A Flameproof Fluorescent Luminaires

File No 53A11537

Report No. R53A11537A

D R Stubbings BA MIEE
Certification Manager

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER Sira 00ATEX1021X Dated 24 February 2000
VARIATION NUMBER 6 (SIX) Dated 17 February 2005

VARIATION TO EQUIPMENT

To permit:

- 1 The introduction of the following changes to the VL51A Luminaires
 - The reduction in length of the end-casting.
 - The repositioning of the electronic ballast to above the gear tray.
- 2 The introduction of the following change to the VL52A Luminaires
 - The emergency battery assembly to be fitted internally.

DESCRIPTIVE DOCUMENTS

Number	Sheet	Rev	Date	Description
LA394	1 of 1	0	13 Jan 05	VL51A & VL52A Alternative Configurations

File No 51A12615
Report No. R51A12615A

D R Stubbings BA MIEE
Certification Manager

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Rake Lane, Eccleston, Chester, CH4 9JN, England
Tel: +44 (0) 1244 670900 Fax: +44 (0) 1244 681330
Email: exhazard@siratc.co.uk



EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER Sira 00ATEX1021X Dated 24 February 2000

VARIATION NUMBER 6 (SIX) Dated 17 February 2005

AMENDED CONDITION OF CERTIFICATION

17.2 Each enclosure that is not manufactured in accordance with this variation shall be subjected to a routine overpressure test in accordance with the table below:

Model	Length (feet)	Hydrostatic Overpressure Test Pressure Applied IIB		Hydrostatic Overpressure Test Pressure Applied IIC	
		Bar	Lbf/in ²	Bar	Lbf/in ²
8 W VL52A	1	8.30	120.35	12.90	187.70
8 W VL51A	1	8.30	120.35	11.23	162.84
18 W VL51A & VL52A	2	8.30	120.35	12.06	174.87
36 W VL51A & VL52A	4	7.05	102.23		
58 W VL51A & VL52A	5	9.84	142.68		
70 W VL51A	6	12.24	177.48		

Each enclosure manufactured in accordance this variation shall be subjected to a routine overpressure test in accordance with the table below:

Model	Length (feet)	Hydrostatic Overpressure Test Pressure Applied IIB	
		Bar	Lbf/in ²
18 W	2	10.9	158
36 W	4	9.4	137
58 W	5	12.0	174

In all cases, the pressure shall be maintained for at least 10 s as required by clause 16.1 of EN 50018:1994. There shall be no permanent deformation or damage to the enclosure.

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Tel: +44 (0) 1244 670900 Fax: +44 (0) 1244 681330

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