



Type Examination Certificate

(1)
(2)

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

(3) Type Examination Certificate Number:

FTZÚ 09 ATEX 0139X

(4) Equipment: **Vulcan and Fire Vulcan**

(5) Manufacturer: **Streamlight, Inc.**

(6) Address: **30 Eagleville Road, Eagleville PA 19403 U.S.A.**

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

(8) The Physical Technical Testing Institute 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 Category 3 equipment, which is intended for use in potentially explosive atmospheres given in Annex II to the Council Directive 94/9/EC.

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

09/0139 dated 24.06.2009

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:

EN 60079-0:2006; EN 60079-15:2005; EN 61241-0:2006; EN 61241-1:2004

(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 TYPE EXAMINATION CERTIFICATE relates only to the design, examination and testing of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include following:



II 3G Ex nAL IIC T4*

II 3D Ex tD A22 IP66 T 53°C*

* - see the clause (15) of this Type examination certificate

This Type Examination Certificate is valid till: **24.06.2014**

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 24.06.2009

Number of pages: 1/3

This certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
This certificate may only be reproduced in its entirety and without any change, schedule included.



**Physical Technical Testing Institute
Ostrava-Radvanice**

(13)

Schedule

(14) **Type Examination Certificate N° FTZÚ 09 ATEX 0139X**

(15) Description of Equipment:

The equipment is a plastic portable battery operated lantern with carrying handle. The equipment is a self protected energy-limited apparatus.

The equipment comprises lantern body (orange polycarbonate), facecap (black polycarbonate), reflector (polycarbonate with metallized mirror), lens (transparent polycarbonate), handle (black rubber) and two LED lenses (transparent polycarbonate) (type Fire Vulcan only). Inside of the equipment there is the printed circuit board on which all of the electronic components are mounted without the battery, the switch and the bulb. The two (type Vulcan only) or three positions switch is located below carrying handle. In the bottom of the equipment there are two covered contacts for charging the battery and the pressure relief valve with the valve plug. As the light source there are used the single filament lamp or the dual filament lamp (type Vulcan only) on the front side and two blue LEDs (type Fire Vulcan only) on the back side of the equipment.

Light source	Single filament lamp 6V, 2.55W No. 440054	Dual filament lamp 6V, 8W No. 450098	(optional) Single filament lamp 6V, 6W or 8W No. 151101 or 152505
Temperature class	T4	T2	T2
Max. surface temperature	53°C	62°C	62°C

The equipment is supplied by battery – one valve regulated lead-acid battery rechargeable 6V, 4.5Ah battery type
 1, NP4.5-6 produced by EnerSys or
 2, BP4.5-6 produced by B.B. Battery Co. or
 3, Portalac PE6V4.5 produced by GS Battery Inc.

The battery may be charged from chargers made available by Streamlight, Inc. for use with this equipment.

Ratings: Ambient temperature range: $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
 Degree of protection: IP 66

(16) Report No. : 09/0139 dated 24.06.2009

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 24.06.2009

Number of pages: 2/3

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Physical Technical Testing Institute
Ostrava-Radvanice

(13) **Schedule**

(14) **Type Examination Certificate N° FTZÚ 09 ATEX 0139X**

(17) Special conditions for safe use:

- 17.1 The equipment must only be used in an area with low risk of mechanical damage.
17.2 The equipment must only be charged and opened in a non-hazardous area.

(18) Essential Health and Safety Requirements:

Covered by standards mentioned in clause (9) of this certificate.


(19) List of documentation:

	Drawing No.	Rev.	Sheets	Date
1	A997525-2	A	1	17.06.2009
2	A440153	B	1	25.05.2009
3	A440053-2	C	1	22.06.2009
4	A440153-3	D	1	26.05.2009
5	C444000-2	D	1	19.05.2009
6	C440000-2	D	1	19.05.2009
7	D441001	E	3	15.06.2009
8	B444075	A	1	27.04.2009
9	C440073	B	1	13.04.2009
10	C450099	C	1	27.04.2009
11	C440074	A	1	18.06.2005
12	D450096	A	1	09.10.1997
13	D440219	C	1	09.06.2003
14	C446069	A	1	28.05.2009
15	B440133	T3	1	04.08.2003
16	A440046	A	1	30.06.1999
17	A440017	A	1	25.08.1999

	Drawing No.	Rev.	Sheets	Date
18	A440015	B	1	23.08.2002
19	C440005	B	1	06.03.2006
20	A130018	A	1	02.06.1997
21	A450116	A	1	22.04.2009
22	B440054	B	1	10.03.2005
23	A450088	B	1	10.04.2007
24	A201101	A	1	15.10.1998
25	C440127	A	1	29.04.2009
26	B440118	A	1	23.04.2009
27	B440119	A	1	30.04.2009
28	A440129	A	1	29.04.2009
29	PCB440127	-	1	19.05.2009
30	PCB440028	E	1	19.07.2001
31	P/N440028	E	2	19.07.2001
32	P/N440126	A	2	06.02.2003
33	BOM440118/9	-	3	01.08.2001
34	BOM440127	-	5	12.03.2003

The documentation was verified by FTZÚ dated 24.06.2009

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



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Number of pages: 3/3

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