Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(1) # EC-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 99 ATEX 1049

(4)	Equipment:	Signal light dSL.1.
(5)	Manufacturer:	FUNKE+HUSTER FERNSIG Fernsprech- und Signalbau GmbH & Co. KG
(6)	Address:	D-42551 Velbert, Eintrachtstr. 95

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council 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 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 the confidential report PTB Ex 99-19101.

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

EN 50014:1997 **EN 50018:1994** **EN 50019:1994**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment 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 in accordance with Directive 94/9/EC. 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 G EEx de IIC T4 resp. T6

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor

Braunschweig, January 19, 2000

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 24

(13) # S C H E D U L E

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1049

(15) Description of equipment

The housing of the signal light consists of a lamp compartment of the flameproof enclosure type of protection and a terminal compartment of the increased safety type of protection. The lamp compartment consists of an aluminium casting and a glass cap which are potted to form a flameproof unit. A sealing plate closes the flameproof compartment and forms the electrical connection by means of a certified bushing to the terminal compartment. The whole metal housing has a polyurethane enclosure providing double isolation protection. A cable entry of plastics complete the double isolation protection.

The signal light can be manufactured in the following designs:
dSLD15 = rotating beacons
dSLB15 = strob light
dSLB16 = strob light with monitoring function for the flasher systems

Technical data

Range of permissible ambient temperature	-20 °C to +40 °C								
Lamp type	dSLD15				dSLB15 and dSLB16				
Temperature class	T4				T6				
Rated voltage	115 V AC	230 V AC	12 V DC	24 V DC	115 V AC	230 V AC	12 V DC	24 V DC	48 V DC
Voltage tolerance	±10%	±10%	9...12 V DC	18...30 V DC	±10%	±10%	9...12 V DC	18...30 V DC	36...60 V DC
Lighting means	halogen lamp 12V / 24V sccording to DIN 49820				max. 2 flash tubes BU4668FH 1				
Power consumption	max. 35 W				max. 15 W				
Flash energy	-				type dSLB15: single-mode flash each 1,5 s with 15 Ws double flash each 1,5 s with 7,5 Ws offset 0,2 s push/pull flash each 0,75 s with 7,5 Ws			type dSLB16: 15 Ws (single flash)	
Mode of operation	continuous				common mode (double flash) or alternation mode (alternation flash)			independent flash systems	
Normal position	no restriction								

(16) Test report PTB Ex 99-19101

(17) Special conditions for safe use

not applicable; the following hints have to be observed:

Hints for installation

Only connecting cables whose diameter has been certified by the test certificate for the respective conduit entries may be installed. In addition, the hints for installation in the test certificate for the respective conduit entry have to be observed.

Hints for operation

A damp rag must be used to clean the housing of the signal light.

The signal light must not be opened when under voltage. After switching-off, the signal light may be opened only after a certain time (cf. Table).

Lamp type	dSLD15	dSLB15	dSLB16
Waiting time	4 minutes	10 minutes	

(18) Essential health and safety requirements

Met by the standards mentioned above

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