

## 12. EC-type examination certificate



EXAM  
BBG Prüf- und Zertifizier GmbH

- (1) **EC Type Examination Certificate**  
(2) **- Directive 94/9/EC -**  
**Devices and safety systems for use as intended in areas at risk of explosions**

(3) **BVS 07 ATEX E 005**

(4) **Device: Type SHL 100-Ex hand lamp**

(5) **Manufacturer: ecom instruments GmbH**

(6) **Address: 97959 Assamstadt**

(7) The design of this device is specified along with the different permitted types in the attachment to this type examination certificate.

(8) The certification body of EXAM BBG Prüf- und Zertifizier GmbH, appointed body No. 0158 in accordance with Article 9 of Directive 94/9/EC by the European Parliament and the Council dated 23 March 1994, certifies that the device fulfils the basic safety and health requirements for the conception and construction of devices and safety systems for use as intended in areas at risk of explosion in accordance with Attachment II of the directive. The test results have been recorded in Test Report BVS PP 07.2001 EC.

(9) The basic safety and health requirements are fulfilled through compliance with  
EN 50014:1997 + A1 - A2 General provisions  
EN 50020:2002 Intrinsic Safety 'i'

(10) If an "X" follows the certificate number, reference is being made to special conditions for the safe application of the device that have been set out in the attachment to this certificate.

(11) This EC type examination certificate only refers to the conception and type test of the device described in compliance with Directive 94/9/EC. Additional requirements by the directive not covered by this certificate must be fulfilled for the manufacture and bringing into circulation of the device.

(12) The device marking must include the following information:

 **II 2G EEx ib IIC T4**

**EXAM BBG Prüf- und Zertifizier GmbH**  
Bochum, 4 January 2007

Certification Body

Department

(13) Attachment to  
(14) **EC Type Examination Certificate**

BVS 07 ATEX E 005

(15) 15.1 Subject and type

Type SHL 100-Ex hand lamp

15.2 Description

The hand lamp designed as a portable electrical product consists of a plastic housing whose bottom section contains the intrinsically safe power-supply battery and a circuit board with the electronic components for the electronic control and monitoring unit.

The top of the hand lamp's casing is designed as a torch and contains the bulbs (main lamp and auxiliary lamp).

Operating elements (on/off button, adjusting lever for focusing the light beam) are located on the rear of the torch housing.

LEDs for displaying the operating state and charging contacts are integrated in the back of the lower section of the housing.

The power-supply battery is charged outside the area at risk of explosion with a charging unit specially adapted to the battery's cell type.

15.3 Parameters

15.3.1 Internal power-supply battery  
(closed lead-gel rechargeable battery)

Voltage	U	DC	4.7	V
Nominal capacity		≤	3.5	Ah

15.3.2 Ambient temperature range:  $-20^{\circ}\text{C} < T_a < +50^{\circ}\text{C}$

(16) Test report  
BVS PP 07.2001 EC, date 04.01.2007

(17) Special conditions for safe application

Not applicable