

# TRANSLATION

## (1) **EC type approval test certificate ZELM ex**

- (2) Devices and shielding systems intended for regulated use in explosive areas - **Directive 94/9/EC**
- (3) EC type approval test certificate number

### **ZELM 12 ATEX 0479 X**

- (4) Device: **Handlamp model SHL 350-Ex**
- (5) Manufacturer: **ecom instruments GmbH**
- (6) Address: **Industriestr. 2, D-97959 Assamstadt**
- (7) The design of this device and its various approved embodiments are defined in the attachment to this type approval test certificate.
- (8) As nominated body no. 0820 in accordance with article 9 of the EC council directive dated March 23, 1994 (94/9/EC), Testing and Certification Body ZELM Ex certifies compliance with the basic health and safety requirements for the design and construction of devices and protection systems for designated use in areas with an increased risk of explosion in accordance with Appendix II of the directive.

The results of the test are documented in confidential test report no. ZELM Ex 1431119894.

- (9) The fundamental health and safety requirements are fulfilled through compliance with

**EN 60079-0:2009**  
**EN 60079-28:2007**

**EN 60079-11:2007**  
**EN 61241-11:2006**

**EN 60079-26:2007**

- (10) If the certification number is followed by an "X", then this indicates that special conditions exist for the safe operation of the device. These special conditions are contained in the attachment to this certificate.
- (11) This EC type approval test certificate only refers to the construction/design, inspection and testing of the specified device or protection system in accordance with directive 94/9/EC. Further requirements contained in this directive may apply with regard to the manufacturing process and the supply of the device or protection system. Such requirements are not covered by this certification.
- (12) The device must be provided with the following information:



**II 1 G Ex ia op is IIC T4 Ga or**

**II 1 G Ex ia IIIC T130°C Da**

Brunswick, 2012-02-07

## ZELM ex

## ZELM ex

Certification body

**Zertifizierungsstelle**  
**(certification body) ZELM ex**  
**Dipl.-Ing. Harald Zeim**

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## (13) Attachment

### (14) EC type approval test certificate ZELM 12 ATEX 0479 X

#### (15) Description of the device

The explosion-protected handlamp SHL 350-Ex is a hand-operated, portable device for use in areas with an increased risk of explosion (categories 1G or 1D).

The device consists of a plastic housing with a pivoting lamp head. Three LEDs are integrated in the lamp head. Power is supplied by an integrated battery pack.

permitted operating temperature range:  $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +50^{\circ}\text{C}$   
permitted storage temperature range:  $-30^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$   
permitted charging temperature range:  $0^{\circ}\text{C} \leq T_{\text{amb}} \leq +40^{\circ}\text{C}$

#### Electrical data

Power supply from an integrated rechargeable battery.  
The internal electric circuit is intrinsically safe.

#### (16) Test report no.

ZELM Ex 1431119894

#### (17) Special conditions

1. Opening the housing within an explosive area is not permitted.
2. The device should only be charged outside the explosive area together with the appropriate battery charger.
3. The integrated batteries may only be exchanged outside the explosive area by the manufacturer or a person authorised by the manufacturer.
4. Avoid contact between the unit and abrasive acids or bases.
5. A visual and functional inspection should be conducted at regular intervals to ensure an orderly external condition of the handlamp. If the batteries are depleted or there is visible damage, the handlamp is to be removed from the explosive area.
6. The operating manual is to be observed.

#### (18) Fundamental health and safety requirements fulfilled by

standards

Brunswick, 2012-02-07

# ZELM ex

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Certification body

Zertifizierungsstelle  
(certification body)  
ZELM ex Dipl.-Ing.  
Harald Zelm

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