

# Testing and Certifying Body

## ZELM Ex

### (1) EC-Type Examination Certificate, (translation)

- (2) Equipment and Protected Systems Intended for Use in Potentially Explosive Atmospheres - Directive 94/9/EC  
(3) EC-TYPE EXAMINATION CERTIFICATE Number

### ZELM 03 ATEX 0188

- (4) Equipment: Explosion-protected Digital Camera Ex-Cam 01  
(5) Manufacturer: ecom instruments GmbH  
(6) Address: D-97959 Assamstadt  
(7) The design of this equipment and its various approved embodiments are defined in the attachment to this type examination certificate.  
(8) The Prüf- und Zertifizierungsstelle ZELM, notified body no. 0820 in accordance with Article 9 of the EC Council Directive dated March 23, 1994 (94/9/EC), certifies that this equipment has been found to conform with the essential health and safety requirements for the design and construction of equipment and protected systems for proper intended use in potentially explosive areas in accordance with Appendix II of the directive.

The results of the test are documented in the confidential test report no. ZELM Ex 0800312249.

- (9) The essential health and safety requirements are met by virtue of conformity with  
EN 50014:1997+A1+A2                      EN 50020:2002                      EN 50281-1-1:1998
- (10) If the certification number is followed by an "X", then this indicates that special conditions exist for the safe operation of the equipment. These special conditions are contained in the attachment to this certificate.
- (11) This EC-type examination certificate only refers to the design, checking and testing of the specified equipment or protected 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 equipment or protected system. Such requirements are not covered by this certification.
- (12) The equipment must be labelled with the following information:



II 2 G EEx ib IIC T4, II 2 D T70°C IP64

Zertifizierungsstelle ZELM

Braunschweig, November 11, 2003

Dipl.-Ing. Harald Zelm

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## ZELM Ex

### Attachment

(13)

(14) EC-Type Examination Certificate ZELM 03ATEX 0188

(15) Description of the equipment

The explosion-protected Digital Camera Ex-Cam 01 is used as a compact camera with a digital zoom and integrated memory in potentially explosive atmospheres. The equipment is fitted with a power supply in the form of an internal rechargeable battery which must be charged only outside the Ex-area using the designated charger.

#### Electrical data

Power supply circuit                      from an integral battery, EEx ib IIC The internal circuits are intrinsically safe.

Ambient temperature                      0 °C to +40 °C

#### Note:

The battery must be charged outside the Ex-area with the designated charger of type DSC 01.

The operating instructions must be followed.

(16) Test report no.

ZELM Ex 0800312249

(17) Special conditions

Not applicable

(18) Essential health and safety requirements

Met by standards

Zertifizierungsstelle ZELM Ex

Braunschweig, November 24, 2003

Dipl.-Ing. Harald Zelm