



(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:

**ZELM 02 ATEX 0086**

(4) Equipment: **Palmsize PC type m5\*\*-Ex**

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

(6) Address: **D-97959 Assamstadt**

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

(8) The Prüf- und Zertifizierungsstelle ZELM Ex, notified body No. 0820 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 ZELM Ex 0140212119.

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

**EN 50 014: 1997+A1+A2**

**EN 50 020: 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, examination and tests 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 shall include the following:



**II 2 G EEx ia IIC T4**

Zertifizierungsstelle **ZELM Ex**

  
Dipl.-Ing. Harald Zelm



Braunschweig, May 8, 2002



## SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE ZELM 02 ATEX 0086**

(15) Description of equipment

The Palmsize PC type m5\*\*-Ex is used as an industry-type PDA (Personal Digital Assistant) for mobile data management in the hazardous area. Alternatively an additional SD- or MMC-card may be integrated.

An included IrDA interface enables communication to other equipment by infrared signals on short distances.

The equipment must be charged with the appropriate charging set outside of the hazardous area only.

Inside of the hazardous area it must be weared with the appropriate leather case which also covers the „Universal Palm Terminal“.

Electrical data

Supply circuit

type of protection Intrinsic Safety EEx ia IIC from the built-in battery

The internal circuits are intrinsically safe.

maximum ambient temperature

0 °C to + 45 °C

References:

The instruction manual has to be considered.

The equipment must be charged with the appropriate charging set type LG M5\*\* outside of the hazardous area only.

Within the hazardous area the equipment must be weared with the appropriate leather case.

(16) Report No.

ZELM Ex 0140212119


(17) Special conditions for safe use

not applicable

(18) Essential Health and Safety Requirements

met by standards

Zertifizierungsstelle **ZELM Ex**

  
Dipl.-Ing. Harald Zelm



Braunschweig, May 8, 2002



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# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

***Palmsize PC type m515-Ex.***

IS / I / 1 / ABCD / T4 Ta = 45°C;

NI / I / 2 / ABCD / T6 Ta = 45°C

Special Condition of Use:

1. When use with batteries meeting the requirement of ecom test procedure 0150PA01A00.

### Equipment Ratings:

Intrinsically Safe for use in a Class I, Division 1, Groups A, B, C, & D and as Nonincendive for use in a Class I, Division 2, Groups A, B, C, & D with a Temperature class of T4 at Ta = 45°C

### Approved for:

ecom instruments GmbH  
Industriestrasse 2  
D-97959 Assamstadt, Germany



This certifies that the equipment described has been found to comply with the following FM Approval Standards and other documents:

Class 3600	1998
Class 3810	1989
Class 3610	1999
Class 3611	1999

Original Project ID: 3015400

FM Approval Granted: March 25, 2003

Subsequent Revision Reports / Date FM Approval Amended

Report Number	Date	Report Number	Date
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FM Global Technologies LLC

Donald E. Major  
Technical Team Manager

March 28, 2003  
Date