

Prüf- und Zertifizierungsstelle

ZELM Ex

(1) EC-Type Examination Certificate

- (2) Equipment and Protected Systems **Intended for Use** in Potentially Explosive Atmospheres - **Directive 94/9/EC**
- (3) EC-Type Examination Certificate Number

ZELM 05 ATEX 0271

(4) **Equipment: Explosion-protected Mobile Radio Unit Ex-PMR 1000**

(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 0550512403.

(9) The essential health and safety requirements are met by virtue of conformity with

EN 60079-0:2004

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 construction/design, checking and testing of the specified equipment 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 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 3 D T 130°C IP54

Zertifizierungsstelle **ZELM Ex**

Braunschweig, August 4, 2005

Prüf- und Zertifizierungsstelle

ZELM Ex

Attachment

(13)

(14) EC-Type Examination Certificate ZELM 05ATEX 0271

(15) Description of the equipment

The explosion-protected mobile radio unit Ex-PMR 1000 serves for communicating in the potentially explosive area.
The equipment is fitted with a rechargeable battery module Ex-AM PMR 1000 and must be charged only outside the potentially explosive area.
Only approved accessories listed in the operating instructions may be connected to the mobile radio unit.

The permitted ambient temperature range is -20 °C to +50 °C.

Electrical data

Supply	from an internal, rechargeable battery module EEx ib IIC The internal circuits are intrinsically safe.
Transmission power	up to 0.6 W
Microphone speaker Circuit:	Only for connection to approved accessories according to the operating instructions
Charging socket	Only for connection to the designated chargers.

Note

The operating instructions must be followed; the battery module must be charged only outside the potentially explosive area and only with the designated charger.

(16) Test report no.

: ZELM Ex 0550512403

(17) Special conditions

Not applicable

(18) Essential health and safety requirements

satisfied by virtue of
the standards

Zertifizierungsstelle **ZELM Ex**

Braunschweig, August 4,
2005



Prüf- und Zertifizierungsstelle
(Test and Certification Body)



ZELM Ex

**Translation
1st Addendum**

(Addendum in accordance with EC directive
94/9, appendix III number 6)

to EC type approval test
certificate

ZELM 05 ATEX 0271

Device: Explosion-protected handheld radio Ex-PMR
Manufacturer: 1000
ecom instruments GmbH
Address: D-97959
Assamstadt

Description of the addendum

The 1st addendum to the EC type approval test certificate particularly concerns internal design changes and does not involve significant changes to the PCB layout.

The technical data and the labeling, as well as the indications in the EC type approval test certificate, remain unchanged.

Test report no. ZELM Ex
1500515433

Special conditions not applicable

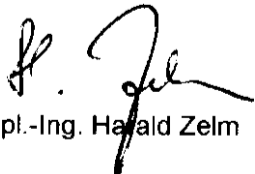
Basic health and safety requirements

The basic health and safety requirements are met by virtue of conformance with

EN 60079-0: 2004	EN 50020: 2002	EN 50281-1-1: 1998
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Zertifizierungsstelle
(Certification Body)
ZELM ex




Dipl.-Ing. Harald Zelm

Brunswick, 10.01.06

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EC type approval test certificates without a signature and stamp are not valid. This EC type approval test certificate may only be circulated without alteration. Extracts or alterations are subject to approval by the Prüf- und Zertifizierungsstelle (Test and Certification Body) ZELM Ex

2nd Addendum

(Addendum in accordance with EC directive 94/9, appendix III number 6)

ZELM eX

Translation

to EC type approval test certificate

ZELM 05 ATEX 0271

Device: **Explosion-protected handheld radio Ex-PMR 1000**

Manufacturer: **ecom instruments GmbH**

Address: **D-97959 Assamstadt**

Description of the addendum

The 2nd addendum to the EC type approval test certificate relates to the Ex-PMR 1000 explosion-protected handheld radio and considers changes to the internal configuration, updates to existing standards and a change of the certification for dust approval to "protection by intrinsic safety - iD".

The "electrical data", including the permitted ambient temperature range, as well as the information specified in the EC type approval test certificate remain unaffected and are also applicable for this 2nd addendum.

In the future the Ex-PMR 1000 explosion-protected handheld radio may also be manufactured in accordance with this 2nd addendum and designated as follows:

Ignition protection class / designation:

II 2 G Exib I CT4
II 3 D Exib D 22 T 130°C IP5x



The electrical data and all other specifications, as well as the details specified in the EC type approval test certificate remain unaffected and shall continue to apply.

Test report no. ZELM Ex

1660812675

Basic health and safety requirements

Furthermore, the basic health and safety requirements are met by virtue of conformance with:

EN 60079-0:2006
EN 60079-11:2007
EN 61241-0:2006
EN 61241-11:2006

Brunswick, 04.05.09

Zertifizierungsstelle (Certification Body) ZELM ex Dipl.-Ing. Harald

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