

Translation

**Physikalisch-Technische Bundesanstalt**  
Braunschweig und Berlin (Federal Institute of Physics and Metrology)

PIB



- (1) **EC-Test Certificate for Design Samples**
- (2) Devices and protective systems to be duly used in potentially explosive atmospheres  
- Directive 94/9/EC
- (3) Number of EC-test certificate for design samples

**PTB 97 ATEX 2231 X**

- (4) Device: Echo meter type 1071 - Ex
- (5) Manufacturer: ECOM Rolf Nied GmbH
- (6) Address: D-97959 Assamstadt
- (7) The design of this device as well as its different permissible variations are stipulated in the appendix to this test certificate for design samples.
- (8) The Physikalisch-Technische Bundesanstalt (Federal Institute of Physics and Metrology) certifies as qualified authority no. 0102 according to article 9 of the directive of the European Council dated 23rd March 1994 (94/9/EC) that this device meets the basic safety and health requirements for design and construction of devices and protective systems to be duly used in potentially explosive atmospheres according to appendix II of the directive.

The results of the tests are described in the confidential test records PTB Ex 97-27224.

- (9) The basic safety and health requirements are met in accordance with

**EN 50014:1997**

**EN 50020:1994**

- (10) If the sign "X" is printed after the number of the certificates, special conditions for the safe operation of the device are mentioned in the appendix to this certificate.
- (11) This EC-test certificate for design samples only refers to the construction and design of the specified device according to the directive 94/9/EC. Further requirements included in this directive apply to the manufacturing, marketing and selling of this device.
- (12) The device must be marked with the following:

**Ex II 2(1)G EEx ia IIC T4**

Certifying Authority Ex-proofness  
By order (signature and stamp)  
Dr.-Ing. U. Johannsmeyer  
Regierungsdirektor

Braunschweig, 7th January 1998

page 1/2



- (13) **Appendix**
- (14) **EC-Test Certificate for Design Samples PTB 97 ATEX 2231 X**
- (15) Description of the device

The echo meter type 1071 - Ex serves the calculation of wall thickness of sound conducting material. The device complies with category 2, the sensor complies with category 1.

Electrical data

Supply (internal battery) U = 3 V, 2 pcs. of batteries Alkaline AA according to IEC LR6

Measuring circuitry (sockets) type of protection inherent safety EEx ia IIC only for connection with relevant measuring heads with following marking  
EDSE 18/25PB 1.5  
EDSE 10.4/6PB4  
EDSE 4.2/4P8

- (16) Test record PTB Ex 97-27224

- (17) Particular conditions

1. The batteries of the echo meter are only to be replaced outside potentially explosive atmospheres.
2. Within potentially explosive atmospheres the echo meter is only to be operated in a leather bag.

- (18) Basic safety and health requirements  
Covered by standards.

Certifying Authority Ex-proofness  
By order (signature and stamp)  
Dr.-Ing. U. Johannsmeyer  
Regierungsdirektor

Braunschweig, 7th January 1998

page 2/2

---

EC-test certificates for design samples without signature and official stamp are invalid.  
This EC-test certificate for design samples must be reproduced in full.  
Excerpts or alterations must officially be approved by the  
Physikalisch-Technische Bundesanstalt  
(Federal Institute of Physics and Metrology)  
Bundesallee 100 - D-38116 Braunschweig

Certified English Translation

The translation of the official document issued in German language is TRUE, CORRECT and COMPLETE to the best of my knowledge.

Sersheim, 12th January 1998

(Signature)

Claudia Salamon, Translator (BDÜ)  
Alleenstraße 17/1, 74372 Sersheim, FRG,  
Tel: 07042/32984 - Fax: 07042/34663