



(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:

**PTB 02 ATEX 2062 X**



(4) Equipment: Pressure transducer Cerabar T, types PMP 131/135, and  
measuring transducer P40/41

(5) Manufacturer: Endress+Hauser GmbH+Co. KG

(6) Address: Hauptstrasse 1, 79689 Maulburg, Germany

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 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 PTB Ex 02-21451.

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

**EN 50014:1997 + A1 + A2**

**EN 50020:1994**

**EN 50284:1999**

(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 in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 1/2 G or II 2 G EEx ib IIC T6

Zertifizierungsstelle Explosionsschutz  
By order:

Braunschweig, June 10, 2002

Dr.-Ing. U. Johannsmeyer  
Regierungsdirektor



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EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

## SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 02 ATEX 2062 X**

(15) Description of equipment

The pressure transducers Cerabar T, types PMP131-...1...., PMP135-...1...., PMP131-...D...., PMP135-...D...., and measuring transducer P40, types 5..-...1...., and P41, types 5..-...1...., and P41, types 5..-...Y...., are used for transforming pressure into an electrical signal in the supply and signal circuits.

The pressure transducers Cerabar T, types PMP131-...1...., PMP135-...1...., and measuring transducer P40, types 5..-...1...., and P41, types 5..-...1...., are used in potentially explosive atmospheres for category-2 equipment.

The pressure transducers Cerabar T, types PMP131-...D.... and PMP135-...D...., and measuring transducer P41, types 5..-...Y...., are installed in potentially explosive atmospheres requiring category-1/2 equipment. They are installed in the partition separating potentially explosive atmospheres requiring category-1 or category-2 equipment.

The maximum permissible ambient temperature is 65 °C.

### Electrical data

Supply and signal circuits  
(terminals:

1 & 2 for appliance connector  
1 & 3 for circular connector  
red/white for cable end)

type of protection Intrinsic Safety EEx ib IIC

only for connection to a certified intrinsically safe circuit with the following maximum values:

$U_i = 26 \text{ V}$

$I_i = 100 \text{ mA}$

$P_i = 800 \text{ mW}$

effective internal inductance negligibly low

effective internal capacitance  $\leq 3 \text{ nF}$

(16) Test report PTB Ex 02-21451

(17) Special conditions for safe use

The explosion protection primarily depends on the imperviousness of the diaphragm (stainless steel, diaphragm thickness  $\geq 0.025 \text{ mm}$ ). This is why the pressure transducers / measuring transducers may only be used for such flammable gases and liquids for which the diaphragm provides sufficient chemical and corrosion resistance.

(18) Essential health and safety requirements

Covered by the standards specified above.

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