



(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres - **Directive 94/9/EC**



(3) EC-Type Examination Certificate Number

TÜV 04 ATEX 2579

(4) Equipment: Thermometric unit MTC 05

(5) Manufacturer: TERMICS S.r.l.

(6) Address: Via S. Predengo, 29
Loc. Costa S. Abramo
I – 26022 Castelverde (CR)

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

(8) The TÜV NORD CERT GmbH & Co. KG, TÜV CERT-Certification Body, notified body number N° 0032 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system 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 N° 04 YEX 316958

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

EN 50014:1997

EN 50020:2002

EN 50284:1999

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

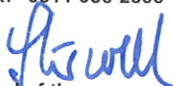
(11) This EC-type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment or protective system must include the following:



II 1/2 G EEx ia/ib IIC T6 to T1

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TÜV CERT-Certification Body
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Head of the
Certification Body

Hanover, 2004-07-28



TÜV NORD CERT

(13)

SCHEDULE

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 04 ATEX 2579**

(15) Description of equipment

The multiple thermometric complex is made of 5 double element thermocouples assembled in a pressure thermowell, complete with connection head and accessories. The complex was designed and for the use in difficult environmental conditions for long periods. All sub components in contact with process and/or environmental gas were planned in stainless steel AISI 316.

Marking	Max. temperature at the protecting tube / measuring insert	Ambient temperature range T_{amb}
1/2 G EEx ia/ib IIC T6	-40 °C...60°C	-40 °C...45 °C
1/2 G EEx ia/ib IIC T5	-40 °C...72°C	-40 °C...60 °C
1/2 G EEx ia/ib IIC T4	-40 °C...108 °C	-40 °C...80 °C
1/2 G EEx ia/ib IIC T3	-40 °C...152°C	-40 °C...80 °C
1/2 G EEx ia/ib IIC T2	-40 °C...232°C	-40 °C...80 °C
1/2 G EEx ia/ib IIC T1	-40 °C...352 °C	-40 °C...80 °C

Electrical Data

Ambient temperature: See above table
Temperature class: See above table

Electrical Inlet values per transducer: $U_i = 29,4 \text{ V DC}$
 $I_i = 130 \text{ mA}$
 $P_i = 0,8 \text{ W}$

Effective internal capacitance per transducer: $C = 15 \text{ nF}$
Effective internal inductance per transducer: $L = 220 \text{ } \mu\text{H}$

Electrical Inlet values from transducer to thermocouple sensor: $U_o = 5,6 \text{ V}$
 $I_o = 145 \text{ mA}$
 $P_o = 20 \text{ mW}$

(16) Test documents are listed in the test report No.: N° 04 YEX 316958



(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones