



Translation

EC-Type Examination Certificate

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

(3) **DMT 02 ATEX E 025 X**

(4) **Equipment: Temperature measuring transformer Type T24.1*.*.***

(5) **Manufacturer:**

(6) **Address:**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the schedule to this type examination certificate.

(8) The certification body of Deutsche Montan Technologie GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council 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 test and assessment report BVS PP 02.2005 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 50014:1997+A1-A2 General requirements
EN 50020:1994 Intrinsic safety 'i'
EN 50284:1999 Equipment Group II Category 1G

(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 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:

Ex II 1G EEx ia IIB bzw. IIC T4/T5/T6 for Type T24.1*.*.*2
II 2G EEx ib IIB bzw. IIC T4/T5/T6 for Type T24.1*.*.*4

Deutsche Montan Technologie GmbH

Essen, dated 07. February 2002

Signed: Jockers

Signed: Dill

DMT-Certification body

Head of special services unit



(13) Appendix to

(14) **EC-Type Examination Certificate**

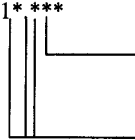
DMT 02 ATEX E 025 X

(15) 15.1 Subject and type

Temperature measuring transformer type T24.1* ***

In the full product name, the *** are replaced by letters and numbers which differentiate the various models:

Type T24.1* ***



2 = EEx ia II* T*

4 = EEx ib II* T*

Marking which does not influence explosion protection

15.2 Description

The temperature measuring transformer is used to transform a resistance signal into a proportional current signal (4 to 20 mA).

The electrical components of the measuring transformer are fitted into an enclosure made of a plastic material. The enclosure is completely filled with casting compound. Terminals are fitted to the enclosure in order to connect the intrinsically safe circuit.

The temperature measuring transformer has to be fitted into an enclosure with type of protection IP 20 according to EN 60529.

15.3 Parameters

15.3.1 power and loop circuit (terminals + and -)

voltage	U _i	DC	30	V
current	I _i		120	mA
power	P _i		800	mW
effective internal capacitance	C _i		6,2	nF
effective internal inductance	L _i		110	μH

15.3.2 sensor circuit (terminals. 1, 2 and 3)

voltage	U _o	DC	6,4	V
current	I _o		42,6	mA
power	P _o		37,1	mW

for group IIB

max. external capacitance	C _o		500	μF
max. external inductance	L _o		50	mH

for group IIC

max. external capacitance	C _o		20	μF
max. external inductance	L _o		10	mH



15.3.3 ambient temperature range T_a

In accordance with the temperature classes, the ambient temperature ranges are defined as follows:

temperature class	ambient temperature range
T1 - T4	$- 50\text{ °C} \leq T_a \leq + 85\text{ °C}$
T5	$- 50\text{ °C} \leq T_a \leq + 75\text{ °C}$
T6	$- 50\text{ °C} \leq T_a \leq + 60\text{ °C}$

(16) Test and assessment report

BVS PP 02.2005 EG as of 07.02.2002

(17) Special conditions for safe use

17.1 The temperature measuring transformer must be fitted into an enclosure with type of protection IP 20 according to EN 60529.

17.2 In accordance with the temperature class the measuring transformer can be used in the following ambient temperature ranges:

temperature classes T1 - T4	ambient temperature range $- 50\text{ °C} \leq T_a \leq + 85\text{ °C}$
temperature class T5	ambient temperature range $- 50\text{ °C} \leq T_a \leq + 75\text{ °C}$
temperature class T6	ambient temperature range $- 50\text{ °C} \leq T_a \leq + 60\text{ °C}$

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

45307 Essen, 03.04.2002
BVS-Schu/Mi E 303/02

Deutsche Montan Technologie GmbH

DMT-Certification body

Head of special services unit



Translation



1st Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

to the **EC-Type Examination Certificate**

DMT 02 ATEX E 025 X

Equipment: Temperature transmitter type T24.1*.***
Manufacturer: WIKA Alexander Wiegand GmbH & Co. KG
Address: D - 63911 Klingenberg/Main

Description

The temperature transmitter can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report.

Test and assessment report

BVS PP 02.2005 EG / N1 as of 03.06.02

Deutsche Montan Technologie GmbH

Essen, dated 03. June 2002

DMT-Certification body

Head of special services unit

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

45307 Essen, 03. June 2002
BVS-Schu/Ar A 20020260

Deutsche Montan Technologie GmbH



DMT-Certification body



Head of special services unit