



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 248**

(4) **Equipment: Temperature Transmitter Type T*2**-***

(5) **Manufacturer: ABB Automation Products GmbH**

(6) **Address: 63754 Alzenau, Germany**

(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 02.2136 EG.

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

EN 50281-1-1:1998 Dust explosion protection

(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:

 **II 1 D IP 65 T 135 °C**

Deutsche Montan Technologie GmbH

Essen, dated 10. December 2002

Signed: Dr. Jockers

Signed: Dr. Eickhoff

DMT-Certification Body

Head of Special Services Unit

(13)

Appendix to

(14)

EC-Type Examination Certificate

DMT 02 ATEX E 248

(15) 15.1 Subject and type

Temperature transmitter type T * 2 ** - *

┌	┌	Ex	transmitter of protection type intrinsic safety
		Ex D	non-intrinsically safe transmitter
└	└	Electrical models:	
			02
			04
			12
└	└	S	universally programmable
		H	universally programmable (HART)
		F	field bus
		R	standard resistor sensor

15.2 Description

The temperature transmitter type T * 2 ** - * serves the purpose to record, enforce and transfer thermal measuring data used together with other transmitters.

The transmitter type T * 2 ** - * consists of either a head mounted design of one of the following types: AGL, AGLH, AGLHD, AGLF, AGLFH or AGLFD respectively; or a field housing of one of the following types: AGS, AGSH, AGSHD, AGSF, AGSFH or AGSFD respectively with the electronic equipment contained therein. Both the head-mounted as well as the field-mounted types can house two transmitters maximum. Both the head-mounted and the field-mounted types are executed in protection type "d", flameproof enclosure (PTB Ex 99-19133, PTB Ex 01-11103).

The following types of the temperature transmitter have already been certified for the use in potentially gas explosive atmospheres as to comply with the protection type intrinsic safety:

Type TS202-Ex as per EC-Type Examination Certificate PTB 01 ATEX 2035 X

Type TH202-Ex as per EC-Type Examination Certificate PTB 99 ATEX 2139 X

Type TR204-Ex as per EC-Type Examination Certificate PTB 99 ATEX 2053 X

Type TF202-Ex as per EC-Type Examination Certificate DMT 02 ATEX E 068 X

Type TF212-Ex as per EC-Type Examination Certificate ZELM 99 ATEX 0021.

The temperature transmitter type T * 2 ** - * is equipped for power supply from intrinsically safe as well as non-intrinsically safe sources. In the case of non-intrinsically safe sources the power shall be limited by an upstream fuse. The nominal voltage of this fuse is to be 32 mA if one transmitter shall be installed, and 63 mA in case two transmitters shall be installed.

15.3 Parameters

15.3.1 Electrical data

15.3.1.1 Type TS202-Ex

as per EC-Type Examination Certificate PTB 01 ATEX 2035 X

- | | | | |
|-----------|---|----|--------------------------------------|
| 15.3.1.2 | Type TS202-Ex D
supply voltage
max. power loss | DC | 11,5... 30 V
< 1 W |
| 15.3.1.3 | Type TH202-Ex
as per EC-Type Examination Certificate PTB 99 ATEX 2139 X | | |
| 15.3.1.4 | Type TH202-Ex D
supply voltage
max. power loss | DC | 8,5... 30 V
< 1 W |
| 15.3.1.5 | Type TR204-Ex
as per EC-Type Examination Certificate PTB 99 ATEX 2053 X | | |
| 15.3.1.6 | Type TR204-Ex D
supply voltage
max. power loss | DC | 10,5... 30 V
< 1 W |
| 15.3.1.7 | Type TF202-Ex
as per EC-Type Examination Certificate DMT 02 ATEX E 068 X | | |
| 15.3.1.8 | Type TF202-Ex D
supply voltage
max. power loss | DC | 9... 32 V
< 1 W |
| 15.3.1.9 | Type TF212-Ex
as per EC-Type Examination Certificate ZELM 99 ATEX 0021 | | |
| 15.3.1.10 | Type TF212-Ex D
supply voltage
max. power loss | DC | 9... 32 V
< 1 W |
| 15.3.2 | Thermal data | | |
| | Permitted ambient temperature | | - 20 °C ≤ T _{amb} ≤ + 85 °C |
| | Maximum surface temperature T | | 135 °C |
| 15.3.3 | Degrees of protection according to EN 60529 | | IP 65 |
- (16) Test and assessment report
BVS PP 02.2136 EC, status 10.12.2002
- (17) Special conditions for safe use
Not applicable

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.

44809 Bochum, 27.03.2006
BVS-Hk/Mi E 0333/06

EXAM BBG Prüf- und Zertifizier GmbH



Certification body



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 248

Equipment: Temperature Transmitter Type T*2**-*
Manufacturer: ABB Automation Products GmbH
Address: 63754 Alzenau, Germany

Description

The Temperature Transmitter Type T*2**-* meets degrees of protection IP67.

Parameters

Electrical and thermal data without change
Degrees of protection according to EN 60529 IP 67

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:

EN 50281-1-1 :1998+A1 Dust explosions protection

The marking of the equipment shall include the following:

 II 1D IP67 T 135 °C

Special conditions for safe use

none

Test and assessment report
BVS PP 02.2136 EG as of 31.08.2006

EXAM BBG Prüf- und Zertifizier GmbH
Bochum, dated 31. August 2006

Signed: Dr. Jockers

Certification body

Signed: Dr. Wittler

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.

44809 Bochum, 31.08.2006
BVS-Hk/Mi A 2060481

EXAM BBG Prüf- und Zertifizier GmbH



Certification body



Special services unit