



Translation

EC-Type Examination Certificate

- (1)
- (2) - Directive 94/9/EC -
Equipment and protective systems intended for use
in potentially explosive atmospheres
- (3) **DMT 02 ATEX E 243 X**
- (4) **Equipment:** Temperature transmitter type 9182/*0-5*-1*
- (5) **Manufacturer:** R. STAHL Schaltgeräte GmbH
- (6) **Address:** D 74638 Waldenburg
- (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 02.2126 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
EN 50281-1-1:1998 Dust explosion protection
EN 50021:1999 Type of protection 'n'
- (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) GD [EEx ia] IIC/IIB and
II 3G EEx nAC II T4

Deutsche Montan Technologie GmbH

Essen, dated 25. November 2002

Signed: Jockers

Signed: Eickhoff

DMT-Certification body

Head of special services unit

(13) Appendix to

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

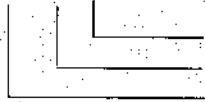
DMT 02 ATEX E 243 X

(15) 15.1 Subject and type

Temperature transmitter type 9182/*0-5*-1*

Instead of the *** in the complete denomination numerals will be inserted which characterize modifications:

Type 9182/*0-5*-1*



numeral 1 or 2 for contacts
 numeral 0, 1 or 3 for analog output
 numeral 1 or 2 for channel

15.2 Description

The temperature transmitter, which will be installed outside the hazardous area or in an enclosure which is in accordance with EN 50021, is used for converting the intrinsically safe input signals into non-intrinsically safe output signals.

15.3 Parameters

15.3.1 Power supply circuit (terminals 7 - 9 and pac-bus connector V007/1 – V007/2)

Nominal voltage		DC	24	V
max. voltage	Um	AC	250	V
Nominal current			100	mA

15.3.2 Non-intrinsically safe signal circuits

max. voltage	Um	AC	250	V
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15.3.2.1 Type 9182/*0-51-1*

15.3.2.1.1 Analog output circuits

Output 1: terminals 1 and 2

Output 2: terminals 5 and 6

Nominal voltage		DC	15	V
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Nominal current			20	mA
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15.3.2.1.2 Switching circuits, only for type 9182/10-51-12

Contact 1: terminals 3 and 4

Contact 2: terminals 5 and 6

Nominal voltage		AC/DC	30	V
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Nominal current			100	mA
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15.3.2.2 Type 9182/10-50-12

Switching circuits

Contact 1: terminals 3 and 4

Contact 2: terminals 5 and 6

Nominal voltage		AC/DC	30	V
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Nominal current			100	mA
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15.3.2.3	Type 9182/20-50-12 Switching circuits Contact 1: terminals 1 and 2 Contact 2: terminals 2 and 3 Contact 3: terminals 5 and 6 Contact 4: terminals 6 and 4 Nominal voltage Nominal current		AC/DC	30 100	V mA
15.3.2.4	Type 9182/*0-53-1*				
15.3.2.4.1	Analog output circuits Output 1: terminals 1 and 2 Output 2: terminals 5 and 6 Nominal voltage Nominal current		DC	5 10	V mA
15.3.2.4.2	Switching circuits, only for type 9182/10-53-12 Contact 1: terminals 3 and 4 Contact 2: terminals 5 and 6 Nominal voltage Nominal current		AC/DC	30 100	V mA
15.3.2.5	Fault monitoring circuits Loop 1 terminals 8 – 9 Loop 2 pbc-bus connector V007/3 – V007/4, floating contact Nominal voltage Nominal current		DC	30 100	V mA
15.3.2.6	Configuration circuits (RS232) connection V401 Nominal voltage Nominal current			± 15 10	V mA
15.3.3	Intrinsically safe input circuits (terminals 10 up to 15, any combination) Voltage Current Power linear output characteristic effective internal capacitance effective internal inductance	U _o I _o P _o C _i L _i	DC	6,5 19,7 32	V mA mW negligible negligible

The values for the external capacitances C_o and inductances L_o are shown in the following table:

	IIB	IIC
Lo	330 mH	90 mH
Co	570 μF	25 μF

15.3.4 Ambient temperature range T_a -20 °C up to +70 °C

(16) Test and assessment report
BVS PP 02.2126 EG as of 25.11.2002

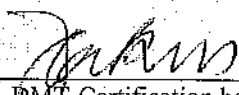
(17) Special conditions for safe use

For installation of the temperature transmitters in areas, where category 3 equipment is required, those modules have to be mounted in enclosures which are in accordance with EN 50021.

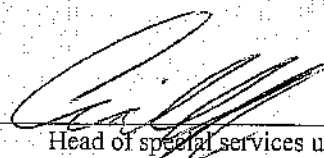
We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

45307 Essen, 25.11. 2002
BVS-Schu/Mi A 20020588

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 243 X

Equipment: Temperature transmitter type 9182/*0-5*-1*
Manufacturer: R. STAHL Schaltgeräte GmbH
Address: D - 74638 Waldenburg

Description

The temperature transmitter can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report and the following variation is also possible:

type 9182/10-59-1*

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

EN 50014:1997+A1-A2 General requirements
EN 50020:2002 Intrinsic safety 'i'
EN 50284:1999 Equipment Group II Category 1G
EN 50021:1999 Type of protection 'n'

Parameters

for type 9182/10-59-1*

non-intrinsically safe signal circuits

max. voltage

Um

AC

250

V

1 Type 9182/10-59-1*

1.1 Analog output circuits

Output 1: terminals 1 and 2

Nominal voltage

Nominal current

DC

31,2

V

20

mA

1.2 Switching circuits, only for type 9182/10-59-12

Contact 1: terminals 3 and 4

Contact 2: terminals 5 and 6

Nominal voltage

Nominal current

AC/DC

30

V

100

mA

Test and assessment report
BVS PP 02.2126 EG as of 17.06.2004

EXAM BBG Prüf- und Zertifizier GmbH

Bochum, dated 17. June 2004

Signed: Dr. Jockers

Signed: Dr. Eickhoff

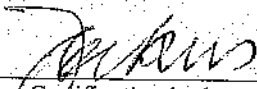
Certification body

Special services

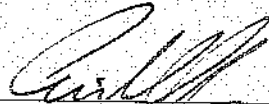
We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 17. Juni 2004
BVS-Schu/Kw A 20040119

EXAM BBG Prüf- und Zertifizier GmbH



Certification body



Special services



Translation

2nd Supplement

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

to the EC-Type Examination Certificate DMT 02 ATEX E 243 X

Equipment: Temperature transmitter type 9182/*0-5*-1*
Manufacturer: R. STAHL Schaltgeräte GmbH
Address: 74638 Waldenburg, Germany


Description

The temperature transmitter has been assessed in acc. with the standards EN 60079-** and EN 61241-*.

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

EN 60079-0:2006 General requirements
EN 60079-11:2007 Intrinsic safety 'i'
EN 60079-15:2005 Type of protection 'n'
EN 60079-26:2004 Equipment Group II Category 1G
EN 61241-0:2006 General requirements
EN 61241-11:2006 Protection by intrinsic safety 'iD'

The marking of the equipment shall include the following:

 **II 3 (1) G Ex nA nC [ia] IIC T4**
II (1) D [Ex iaD]

Modified parameters

1	Power supply circuit (terminals 7 - 9 and pac-bus connector V007/1 – V007/2)				
	Nominal voltage		DC	24	V
	Max. voltage	Um	AC	253	V
	Nominal current			80	mA
2	Non-intrinsically safe signal circuits				
	Max. voltage	Um	AC	253	V

Special conditions for safe use

- 1 For installation of the temperature transmitter in areas, where category 3 equipment is required, the module has to be mounted in an enclosure which is in accordance with EN 60079-15.
- 2 The analog output circuit of the types 9182/10-59-11 and 9182/10-59-12 is a passive circuit and will be connected to an external supply circuit; for installation of the temperature transmitter in areas, where category 3 equipment is required, this analog output shall only be connected to an energy limited circuit in accordance with EN 60079-15.

Test and assessment report

BVS PP 02.2126 EG as of 06.02.2008

DEKRA EXAM GmbH

Bochum, dated 06. February 2008

Signed: Dr. Jockers

Certification body

Signed: Dr. Eickhoff

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, 06. February 2008
BVS-Schu/Sz A 20070811**DEKRA EXAM GmbH**

Certification body

Special services unit



Translation

3rd Supplement

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

to the EC-Type Examination Certificate DMT 02 ATEX E 243 X

Equipment: Temperature transmitter type 9182/*0-5*-1*
Manufacturer: R. STAHL Schaltgeräte GmbH
Address: 74638 Waldenburg, Germany


Description

The temperature transmitter can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report; new apparatus variations are possible and the marking has been modified due to the standard versions used.

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

IEC 60079-0:2007 General requirements
EN 60079-11:2007 Intrinsic safety 'i'
EN 60079-15:2005 Type of protection 'n'
EN 60079-26:2004 Equipment Group II Category IG
EN 61241-0:2006 General requirements
EN 61241-11:2006 Protection by intrinsic safety 'iD'

The marking of the equipment shall include the following:

 **II 3 (1) G Ex nAc nCc [ia] IIC T4**
II (1) D [Ex ia] IIIC

Parameters

1	Power supply circuit (terminals 7 - 9 and pac-bus connector V007/1 – V007/2)				
	Nominal voltage		DC	24	V
	Max. voltage	Um	AC	253	V
	Nominal current			80	mA
2	Non-intrinsically safe signal circuits				
	Max. voltage	Um	AC	253	V

2.1	Type 9182/20-51-11 and type 9182/20-51-13 Analog output circuits Output 1: terminals 1 and 2 Output 2: terminals 5 and 6 Nominal voltage Nominal current	DC	15 20	V mA
2.2	Type 9182/10-51-11 and type 9182/10-51-13 Analog output circuits Output 1: terminals 1 and 2 Nominal voltage Nominal current	DC	15 20	V mA
2.3	Type 9182/10-51-12 and type 9182/10-51-14			
2.3.1	Analog output circuits Output 1: terminals 1 and 2 Nominal voltage Nominal current	DC	15 20	V mA
2.3.2	Switching circuits Contact 1: terminals 3 and 4 Contact 2: terminals 5 and 6 Nominal voltage Nominal current	AC/DC	30 100	V mA
2.4	Type 9182/10-50-12 and type 9182/10-50-14 Switching circuits Contact 1: terminals 3 and 4 Contact 2: terminals 5 and 6 Nominal voltage Nominal current	AC/DC	30 100	V mA
2.5	Type 9182/20-50-12 and type 9182/20-50-14 Switching circuits Contact 1: terminals 1 and 2 Contact 2: terminals 2 and 3 Contact 3: terminals 5 and 6 Contact 4: terminals 6 and 4 Nominal voltage Nominal current	AC/DC	30 100	V mA
2.6	Type 9182/10-53-11 Analog output circuits Output 1: terminals 1 and 2 Nominal voltage Nominal current	DC	5 10	V mA
2.7	Type 9182/10-53-12			
2.7.1	Analog output circuits Output 1: terminals 1 and 2 Nominal voltage Nominal current	DC	5 10	V mA

2.7.2	Switching circuits Contact 1: terminals 3 and 4 Contact 2: terminals 5 and 6 Nominal voltage Nominal current	AC/DC	30 100	V mA
2.8	Type 9182/20-53-11 Analog output circuits Output 1: terminals 1 and 2 Output 2: terminals 5 and 6 Nominal voltage Nominal current	DC	5 10	V mA
2.9	Type 9182/10-59-11 and type 9182/10-59-13 Analog output circuits Output 1: terminals 1 and 2 Nominal voltage Nominal current	DC	22 20	V mA
2.10	Type 9182/20-59-11 and type 9182/20-59-13 Analog output circuits Output 1: terminals 1 and 2 Output 2: terminals 5 and 6 Nominal voltage Nominal current	DC	19 20	V mA
2.11	Type 9182/10-59-12 and type 9182/10-59-14			
2.11.1	Analog output circuits Output 1: terminals 1 and 2 Nominal voltage Nominal current	DC	22 20	V mA
2.11.2	Switching circuits Contact 1: terminals 3 and 4 Contact 2: terminals 5 and 6 Nominal voltage Nominal current	AC/DC	30 100	V mA
2.12	Fault monitoring circuits Loop 1 terminals 8 – 9 loop 2 pac-bus connector V007/3 – V007/4, floating contact Nominal voltage Nominal current	DC	30 100	V mA
2.13	Configuration circuits (RS232) (connection V401) Nominal voltage Nominal current		± 15 10	V mA
3	Intrinsically safe input circuits Terminals 10 up to 15, any combination Voltage Current Power Linear output characteristic	DC	6,5 19,7 32	V mA mW

Translation

(1) 4. Supplement to the EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC Supplement accordant with Annex III number 6
- (3) No. of EC-Type Examination Certificate: **DMT 02 ATEX E 243 X**
- (4) Equipment: **Temperature transmitter type 9182/*0-5*-1***
- (5) Manufacturer: **R. STAHL Schaltgeräte GmbH**
- (6) Address: **74638 Waldenburg, Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.
- (8) The certification body of DEKRA EXAM 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 02.2126 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:

IEC 60079-0:2011 General requirements
IEC 60079-11:2011 Intrinsic safety 'i'
EN 60079-15:2010 Type of protection 'n'
EN 60079-26:2007 Equipment with equipment protection level (EPL) Ga

- (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 appendix to this certificate.
- (11) This supplement to the 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 3 (1) G Ex nA nC [ia Ga] IIC T4 Gc
II (1) D [Ex ia Da] IIIC

alternatively

II 3 (1) G Ex nAc nCc [ia] IIC T4
II (1) D [Ex ia] IIIC

DEKRA EXAM GmbH
Bochum, dated 17.04.2012

Signed: Migenda

Certification body

Signed: Dr. Wittler

Special services unit

- (13) Appendix to
- (14) **4. Supplement to the EC-Type Examination Certificate
DMT 02 ATEX E 243 X**
- (15) 15.1 Subject and type

Temperature transmitter type 9182/*0-5*-1*

15.2 Description

The temperature transmitter can be modified according to the descriptive documents as mentioned in the pertinent Test and Assessment Report and the conformity of the digital output with the standards IEC 60079-0:2011, IEC 60079-11:2011, EN 60079-26:2007 and EN 60079-15:2010 has been assessed.

15.3 Parameters

Unchanged

- (16) Test and Assessment Report

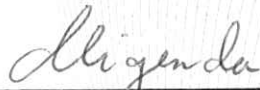
BVS PP 02.2126 EG as of 17.04.2012

- (17) Special conditions for safe use

For installation of the temperature transmitter in areas, where Category 3 equipment is required, the module has to be mounted inside an enclosure which is in accordance with EN 60079-15.

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.

DEKRA EXAM GmbH
44809 Bochum, 17.04.2012
BVS-Schu/Sch A 20120123



Certification body



Special services unit