Translation

1st Supplement

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

to the EC-Type Examination Certificate
BVS 03 ATEX E 414

Equipment: **Pressure transmitter type ME 49 T ** * * *000 R**

Manufacturer: **Fischer Mess- und Regeltechnik GmbH**

Address: **32107 Bad Salzuflen, Germany**

Description

The pressure transmitter can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report and shall then be marked as followed:

Pressure transmitter — type ME 49 T ** *** 000 R

Measuring range	
0 up to 40 mbar	= 57
0 up to 60 mbar	= 58
0 up to 100 mbar	= 59
0 up to 160 mbar	= 60
0 up to 250 mbar	= 82
0 up to 400 mbar	= 83
0 up to 0.6 bar	= 01
0 up to 1 bar	= 02
0 up to 1.6 bar	= 03
Output signal	
4..20 mA 2-wire (ascending characteristic)	= B
Electrical connection	
M12 connector plug	= M
Supply voltage	
DC 15 V up to 30 V	= A

The pressure transmitter type ME49T ** * * * 000R is to measure flammable media and transmits the pressure signal into an intrinsically safe circuit (4..20 mA current loop).

The pressure transmitter consists of a light metal or chrome-nickel-steel housing which clearance contains insulating plates with partially casting compound covered electronic components.

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

Pressure sensors adjusted according to respective application and a bubbling-through component (non-electrical) are built into the bottom of the housing. Between the bubbling-through component and the pressure transmitters' electronics a flame arrester is integrated.

The intrinsically safe supply and signal circuit is wired to a connector.

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
DIN EN 13463-1:2002	Non-electrical equipment part 1: Basic method and requirements with corrigendum 1
DIN EN 13463-5:2004	Non-electrical equipment part 5: Protection by constructional safety "c"

The marking of the equipment shall include the following:

II 1/2G EEx ib IIC T6	Pressure transmitter
II 1G c	Bubbling-through component (non-electrical)

Parameters

1. Supply and signal circuit (type ME 49 T ** * * *000 R)

Voltage	U_i	DC		30	V
Current	I_i			100	mA
Power	P_i			750	mW
Effective internal capacity	C_i			15	nF
Effective internal inductivity	L_i			90	μH
Capacity between circuit and housing			≤	2.2	nF

2. Permitted ambient and medium temperature range (for electric part): $-20\ °C \le T_a \le +60\ °C$
   (for non-electric part): $-20\ °C \le T_a \le +40\ °C$

Special conditions for safe use

None

Test and assessment report

BVS PP 03.2268 EG as of 16. October 2006
BVS PP 1100/108/05 EG as of 18. September 2006

EXAM BBG Prüf- und Zertifizier GmbH
Bochum, dated 16 October 2006

Signed: Dr. Jockers
Certification body

Signed: Dr. Eickhoff
Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

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, 06.11.2007
BVS-Scha/Ar E 1562/07

DEKRA EXAM GmbH

Certification body

Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

Translation

(1) 2nd 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: **BVS 03 ATEX E 414**

(4) Equipment: **Pressure Transmitter type ME 49 F *, type ME 49 T ***

(5) Manufacturer: **Fischer Mess- und Regeltechnik GmbH**

(6) Address: **Bielefelder Str. 37a, 32107 Bad Salzuflen, 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 Reports BVS PP 03.2268 EG and PP 1100/108/05 EG.

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

EN 60079-0:2012	**General requirements**
EN 60079-11:2012	**Intrinsic safety "i"**
EN 60079-26:2007	**Equipment with equipment protection level (EPL) Ga**
DIN EN 13463-1:2009	**Non-electrical equipment part 1: Basic method and requirements**
DIN EN 13463-5:2011	**Non-electrical equipment part 5: Protection by constructional safety "c"**
IEC/TS 60079-32-1:2013	**Electrostatic hazards, guidance**

(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 2G Ex ib IIC T6 Gb	Pressure Transmitter type ME 49 F *
II 1/2G Ex ib IIC T6 Ga/Gb	Pressure Transmitter type ME 49 T *
II 1G c	Bubbling-through component of type ME 49 T * (non-electrical)

DEKRA EXAM GmbH
Bochum, dated 2014-09-25

Signed: Simanski
Certification body

Signed: Dr. Eickhoff
Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

(13) Appendix to

(14) **2nd Supplement to the EC-Type Examination Certificate BVS 03 ATEX E 414**

(15) 15.1 Subject and type

Pressure Transmitter type ME 49 F ** ** * * *000 *
(Type code: no change)

Pressure Transmitter type ME 49 T ** * * *000 R
(Type code: no change)

15.2 Description

The Pressure Transmitter can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report

The status of applied standards dealing with the electrical and non-electrical part has been subjected to update.

The construction of the Pressure Transmitter remains unchanged.

15.3 Parameters

No change

(16) Test and Assessment Report

BVS PP 03.2268 EG as of 2014-06-10
BVS PP 1100/108/05 as of 2014-09-23

(17) Special conditions for safe use

None

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, 2014-09-25
BVS-Scha/Ma A20131192

Certification body

Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

Translation

(1) # EC-Type Examination Certificate

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

(3) # BVS 03 ATEX E 414

(4) **Equipment:** **Pressure transmitter type ME 49 ********000***

(5) **Manufacturer:** **Klaus Fischer**

(6) **Address:** **32107 Bad Salzuflen, 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 03.2268 EG.

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

EN 50014:1997 + A1 – A2 General requirements
EN 50020:2002 Intrinsic safety ´i´

(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 2G EEx ib IIC T6

Deutsche Montan Technologie GmbH
Bochum, dated 02. December 2003

Signed: Dr. Jockers
Certification body

Signed: Dr. Eickhoff
Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

(13) Appendix to

(14) # EC-Type Examination Certificate

BVS 03 ATEX E 414

(15) 15.1 Subject and type

Pressure transmitter — type ME 49 * ** ** * * * 000*

Construction in Fischer type field housing	= F
Measuring range	
0 up to 40 mbar	= 57
0 up to 60 mbar	= 58
0 up to 100 mbar	= 59
0 up to 160 mbar	= 60
0 up to 250 mbar	= 82
0 up to 400 mbar	= 83
0 up to 0.6 bar	= 01
0 up to 1 bar	= 02
0 up to 1.6 bar	= 03
0 up to 2.5 bar	= 04
0 up to 4 bar	= 05
0 up to 6 bar	= 06
0 up to 10 bar	= 07
0 up to 16 bar	= 08
0 up to 25 bar	= 09
0 up to 40 bar	= 10
-1 up to 0 bar	= 31
-1 up to 0.6 bar	= 32
-1 up to 1.5 bar	= 33
-1 up to 3 bar	= 34
-1 up to 5 bar	= 35
-1 up to 9 bar	= 36
-1 up to 15 bar	= 37
Pressure connection: G1/2B male threaded stem	G1/2B = 87
Output signal	
4..20 mA 2-wire (ascending characteristic)	= B
Electrical connection	
Terminals	= E
Supply voltage	
DC 15 V up to 30 V	= A
Diaphragm seal	
Without diaphragm seal	= 0
With diaphragm seal	= 1

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com
(until 31.05.2003: Deutsche Montan Technologie GmbH Am Technologiepark 1 45307 Essen Germany)

15.2 Description

The pressure transmitter type ME 49 ********000* is to measure non-flammable media and transmits the pressure signal into an intrinsically safe circuit (4..20 mA current loop).

The pressure transmitter consists of a light metal housing which clearance contains insulating plates with partially casting compound covered electronic components.

Pressure sensors adjusted according to respective application and process connection are inbuilt into the bottom of the housing.

The intrinsically safe supply and signal circuit is wired into the housing and applied to the clamps.

15.3 Parameters

17.3.1 Supply and signal circuit

Voltage	U_i	DC		30	V
Current	I_i			100	mA
Power	P_i			750	mW
Effective internal capacity	C_i			15	nF
Effective internal inductivity	L_i			90	μH
Capacity between circuit and housing			$\leq$	2.2	nF

17.3.2 Ambient temperature range $-20°C \leq T_a \leq +60°C$

(16) Test and assessment report
BVS PP 03.2268 EG as of 02.12.2003

(17) Special conditions for safe use

None

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, 06.11.2007
BVS-Scha/Ar E 1562/07

DEKRA EXAM GmbH

Certification body

Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com
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