IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx KEM 10.0031	Issue No: 2	Certificate history:
			Issue No. 2 (2014-04-08)
Status:	**Current**	Page 1 of 5	Issue No. 1 (2012-10-15)
			Issue No. 0 (2010-12-23)
Date of Issue:	**2014-04-08**		
Applicant:	**Endress+Hauser GmbH+Co. KG** Hauptstraße 1 79689 Maulburg **Germany**		
Electrical Apparatus:	**Pressure transmitters CERABAR S and Differential Pressure Transmitters DELTABAR S**		
Optional accessory:			
Type of Protection:	**Ex d, Ex ia**		
Marking:	Ex d IIC T6 ... T4 Gb or Ex d IIC T6 ... T2 Gb or Ex d ia IIC T6 ... T4 Gb Ex d ia IIC T6 ... T3 Gb		

Approved for issue on behalf of the IECEx Certification Body: T. Pijpker

Position: Certification Manager

Signature:
(for printed version)

Date: 2014-04-08

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
The Netherlands

DEKRA

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Manufacturer:	**Endress+Hauser GmbH+Co. KG** Hauptstraße 1 79689 Maulburg **Germany**	

Additional Manufacturing location(s):

Refer to Annex 2 for a list of manufacturing locations

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

NL/KEM/ExTR10.0023/00 NL/KEM/ExTR10.0023/01 NL/KEM/ExTR10.0023/02

Quality Assessment Report:

DE/TUN/QAR06.0003/04

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Pressure Transmitters CERABAR S, Types PMP71, PMP72, PMP75 and PMC71 and Differential Pressure Transmitters DELTABAR S, Types PMD75, FMD77 and FMD78.

For details see Annex 1.

For information on the dimensions of the flameproof joints, the manufacturer shall be contacted.

CONDITIONS OF CERTIFICATION: NO

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Change for issue 2:
An alternative sensor, SD7, added for use in the differntial Pressure Transmitters type Deltabar S.

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Additional information:

See Annex 1 and 2

Annex:

216808600 - KEM 10.0031 Iss 2 - Annex 1.pdf

216808600 - KEM 10.0031 Iss 2 - Annex 2.pdf

Annex 1 to Certificate of Conformity IECEx KEM 10.0031, issue 2
Annex 1 to IECEx Test Report No. NL/KEM/ExTR10.0023/02

Description

The Pressure Transmitters CERABAR S Types PMP71, PMP72, PMP75 and PMC71 and the Differential Pressure Transmitters DELTABAR S Types PMD75, FMD77 and FMD78 are used to convert an over- or underpressure into a 4-20 mA HART (SIL), Profibus PA or Foundation Fieldbus output signal.

Minimum ambient temperature -50°C.

The relation between type, temperature class, process temperature and ambient temperature shall be taken from the following table:

Type	Temperature class	Process temperature	Ambient temperature
PMP71 PMP75, PMD75, FMD77, FMD78	T6 T4	≤ 80 °C ≤ 120 °C	≤ 75 °C
PMP72	T6 T4 T2	≤ 80 °C ≤ 120 °C ≤ 280 °C	≤ 75 °C
PMC71	T6 T4 T3	≤ 80 °C ≤ 120 °C ≤ 150 °C 1)	≤ 40 °C ≤ 70 °C ≤ 70 °C

1) PMC71 High Temperature only

The maximum process temperatures applicable to the different types of pressure and differential pressure transmitters are documented in the technical information of the manufacturer.

Electrical data

Supply voltage: max. 32 Vdc (Profibus PA and Foundation Fieldbus)
max. 45 Vdc (HART)
Power dissipation: max. 3 W

For transmitter CERABAR S Type PMC71: U_m = 250 V

Marking

The marking of the Pressure Transmitters shall include the following:

Ex d IIC T6 ... T4 Gb	CERABAR S, Type PMP71, PMP75 and DELTABAR S Types PMD75, FMD77, FMD78
Ex d IIC T6 ... T2 Gb	CERABAR S, Type PMP72
Ex d ia IIC T6 ... T4 Gb	CERABAR S, Type PMC71
Ex d ia IIC T6 ... T3 Gb	CERABAR S, Type PMC71 (high temperature)

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Annex 2 to Certificate of Conformity IECEx KEM 10.0031

Manufacturing locations

1. Endress+Hauser GmbH+Co. KG
   Hauptstraße 1
   79689 Maulburg
   Germany

2. Endress+Hauser GmbH+Co. KG
   Miramstraße 87
   34123 Kassel
   Germany

3. Endress+Hauser (USA) Automation Instrumentation Inc.
   2340 Endress Place
   Greenwood, Indiana 46143
   USA

4. Endress+Hauser (Suzhou) Automation Instrumentation Co. Ltd.
   China-Singapore Industrial Park (SIP)
   Su-Hong-Zhong-Lu, No. 491
   Jiangsu Province, 215021 Suzhou
   P.R. China

5. Endress+Hauser (India) Automation Instrumentation Pvt. Ltd.
   M-192, Waluj MIDC
   Aurangabad - 431136
   Maharashtra State
   India

6. Endress+Hauser Yamanashi Co. Ltd.
   862-1, Sakaigawa-cho
   Fuefuki-shi
   406 0846 Yamanashi
   Japan

7. Endress+Hauser (Brasil),
   Instrumentação e Automação Ltda.,
   Avenida Antonio Sesti, 600, Itatiba/SP
   Brasil

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