(1) EC-Type Examination Certificate

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

(3) No. of EC-Type Examination Certificate: **BVS 12 ATEX E 008**

(4) Equipment: **MEMOSENS sensor simulator Memocheck Sim**
Type CYP03D-BB+**

(5) Manufacturer: **Endress+Hauser Conducta Gesellschaft für Mess- und Regeltechnik mbH + Co. KG**

(6) Address: **70839 Gerlingen**

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

(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 12.2012 EG.

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

EN 60079-0:2009	**General requirements**
EN 60079-11:2007	**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 appendix 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 Ex ia IIC T4 Gb

DEKRA EXAM GmbH
Bochum, dated 24.01.2012

Certification body

Special services unit

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

(13) Appendix to

(14) **EC-Type Examination Certificate**
BVS 12 ATEX E 008

(15) 15.1 Subject and type

MEMOSENS sensor simulator Memocheck Sim

Type CYP03D-BB+**
└──── non ex-relevant

15.2 Description

The MEMOSENS sensor simulator Memocheck Sim type CYP03D-BB+**, in connection with the measuring cable type CYK 10-G*** (BVS 04 ATEX E 121 X) or an in hardware and function identical and certified measuring cable, serves as a test tool for transmitters offering MEMOSENS technology capabilities.
The connection between sensor simulator and measuring cable is galvanically isolated via a completely isolated connection system (inductive coupling).

The MEMOSENS sensor simulator Memocheck Sim type CYP03D-BB+** is a portable instrument which is powered by 3 Alkaline batteries (size AA). The batteries have to be changed only outside of the hazardous area. The approved battery types are listed by Endress+Hauser Conducta Gesellschaft für Mess- und Regeltechnik mbH + Co. KG in the manufacturer's instructions.

15.3 Parameters

15.3.1 MEMOSENS interface (inductive coupling)

The MEMOSENS sensor simulator Memocheck Sim type CYP03D-BB+**, in connection with the measuring cable type CYK 10-G*** (BVS 04 ATEX E 121 X) or an in hardware and function identical and certified measuring cable, may be connected to the intrinsically safe sensor output circuit for digital sensors pH/redox and temperature
of the field measuring device MYCOM-S of type CPM 153-G5..... (1 sensor output circuit), or
of the field measuring device MYCOM-S of type CPM 153-G6..... (2 sensor output circuits)
(DMT 01 ATEX E 174 / 2nd supplement),
as well as to the sensor module FSDG1 of the field measuring device type
Liquiline M CM42-..... (TÜV SÜD – EX5 05 03 30266 012 / 1st – 5th supplement).

Furthermore, the connection with the measuring cable to an intrinsically safe output circuit (Ex ia IIC) with the following maximum values is possible:

Maximum output voltage	U_o	DC	5.1	V
Maximum output current	I_o		130	mA
Maximum output power (linear output characteristic)	P_o		166	mW

The maximum internal capacity and inductivity of the intrinsically safe output circuit may not exceed the following maximum values:

Maximum internal capacity	C_i	15	µF
Maximum internal inductivity	L_i	95	µH

Alternative:

Maximum output voltage	U_o	DC	5.04	V
Maximum output current	I_o		80	mA
Maximum output power (trapezoid output characteristic)	P_o		112	mW

The maximum internal capacity and inductivity of the intrinsically safe output circuit may not exceed the following maximum values:

Maximum internal capacity	C_i	14.1	µF
Maximum internal inductivity	L_i	237.2	µH

Further connection possibilities can be taken from the actual manufacturer's instructions.

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15.3.2 Power supply

3 Alkaline batteries (size AA)

Nominal voltage 4.5 V

The approved battery types are listed by the Endress+Hauser Conducta Gesellschaft für Mess- und Regeltechnik mbH + Co. KG in the manufacturer's instructions.

15.3.3 Ambient temperature range $-20\ °C \leq T_a \leq +50\ °C$

(16) Test and Assessment Report

BVS PP 12.2012 EG as of 24.01.2012

(17) Special conditions for safe use

None

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Level Pressure Flow Temperature Liquid Analysis Systems Components Registration Services Solutions

EG 187A/07/a3

EG-Konformitätserklärung
EC Declaration of Conformity
CE Déclaration de Conformité

Endress+Hauser Conducta Gesellschaft für Mess- und Regeltechnik mbH+Co. KG
Dieselstrasse 24, 70839 Gerlingen, Germany

erklärt in alleiniger Verantwortung, dass die Produkte
declares in sole responsibility that the products
déclare sous sa seule responsabilité que les produits

Sensor-Simulatoren / sensor simulators / simulateurs de capteurs

Memocheck Sim CYP03D-BB+**

zusammen mit Messkabel / together with measuring cable / ensemble avec câble de mesure

CYK10-Ga, a = 1, 2**

EG-Baumusterprüfbescheinigung:
EC type examination certificate:
Certificat de l'examen CE de type : **BVS 12 ATEX E 008 X**

mit den Vorschriften folgender Europäischen Richtlinien übereinstimmen:
are in conformity with the regulations of the following European Directives:
sont conformes aux prescriptions et directives Européennes suivantes:

94/9/EG (Geräte zur Verwendung in explosionsgefährdeten Bereichen)
(Equipment for use in potentially explosive atmospheres)
(Appareils et systèmes de protection en atmosphère explosive)

2004/108/EG (Elektromagnetische Verträglichkeit)
(Electromagnetic Compatibility)
(Compatibilité électrotechnique)

Angewandte harmonisierte Normen oder normative Dokumente:
Applied harmonized standards or normative documents:
Normes harmonisées ou documents normatives appliquées:
EN 60079-0:2009, EN 60079-11:2007
EN 61326-1:2006, EN 61326-2-3:2006

Benannte Stelle für QS-Überwachung:
Notified body for QA control:
Organisme notifié pour l'assurance qualité :
DEKRA EXAM GmbH
Kennnummer / Identification number / numéro d'identification (0158)

Gerlingen, 2012-02-16

i.V. Jörg-Martin Müller
Director Development

i.V. Peter Dierich
Certifications and Approvals

Endress+Hauser
People for Process Automation