



Translation

EC-Type Examination Certificate

(1)

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(2)

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

(3)

BVS 09 ATEX E 021 X

(4)

Equipment: Ultrasonic-Level Probe type NivOil-Sludgesensor
and Cable extension tube type CET02

(5)

Manufacturer: BAMO IER GmbH

(6)

Address: 68199 Mannheim

(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 09.2059 EG.

(9)

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

EN 60079-0:2006 General requirements

EN 60079-11:2007 Intrinsic safety 'i'

EN 60079-26:2004 Equipment Group II Category 1G

(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 1G Ex ia IIB T4

DEKRA EXAM GmbH

Bochum, dated 11. May 2009

Signed:

Simanski

Certification body

Signed:

Dr. Eickhoff

Special services unit

(13) Appendix to

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

BVS 09 ATEX E 021 X

(15) 15.1 Subject and type

Ultrasonic-Level Probe type NivOil-Sludgesensor and Cable extension tube type CET02

15.2 Description

The Ultrasonic-Level Probe type NivOil-Sludgesensor consists of a plastic enclosure (surface resistance $\geq 10^9 \Omega$) of special size and shape, which contains a printed circuit board embedded in casting compound fitted with electronic components.

The Cable extension tube type CET02 is made of conductive plastics material and provides optional extension of the sensor interconnection cable of the type of NivOil sensors:

- Oil level thickness gauge type NivOil oil sensor (BVS 07 ATEX E 091 X)
- Overfill sensor type NivOil blockage sensor (BVS 07 ATEX E 092 X)
- Ultrasonic-Level Probe type NivOil-Sludgesensor (BVS 09 ATEX 021 X)

The ends of the extension tube are closed with cable glands. Terminals are provided for interconnection of the NivOil-sensor cable to the extension cable.

15.3 Parameters

15.3.1 Supply- and signal circuit

15.3.1.1 Ultrasonic-Level Probe type NivOil-Sludgesensor

Voltage	U_i	DC	17.9	V
Current	I_i		157	mA
Power	P_i		695	mW
Effective internal capacity	C_i		0.14	nF/m
Effective internal inductance	L_i		70	μ H/m

15.3.1.2 Ambient temperature range $-20 \text{ }^\circ\text{C} \leq T_a \leq +60 \text{ }^\circ\text{C}$

15.3.2 Cable extension tube type CET02

15.3.2.1 Supply- and signal circuit

Voltage	$U_o = U_i$	DC	20	V
Current	$I_o = I_i$		200	mA
Power	$P_o = P_i$		1000	mW
Effective internal capacity	C_i		negligible	
Effective internal inductance	L_i		negligible	

15.3.2.2 Ambient temperature range $-20 \text{ }^\circ\text{C} < T_a \leq +60 \text{ }^\circ\text{C}$

(16) Test and assessment report

BVS PP 09.2059 EG as of 07.05.2009

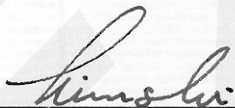
(17) Special conditions for safe use

- 17.1 The connecting cable of the Ultrasonic-Level Probe has to be led through the wall separating areas requiring category 1G equipment from less hazardous areas in such a way that the degree of protection IP 67 according to EN 60529 will be achieved.
- 17.2 Ultrasonic-Level Probe and connecting cable shall only be installed in areas where electrostatic charges effects will not occur..
- 17.3 The technical information provided by the manufacturer regarding:
- the use of the ultrasonic-level probe in contact with aggressive and corrosive media
 - protection against impact
 - floating velocity of media
 - cleaning
- have to be observed.

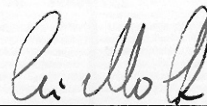
We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 11. May 2009
BVS-Scha/Sz A 20080125

DEKRA EXAM GmbH



Certification body



Special services unit