



Translation

EC-Type Examination Certificate

(1)

EC-Type Examination Certificate

(2)

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

(3)

BVS 10 ATEX E 054

(4)

Equipment: Pulse-Amplifier with local display type VTB * - Ex - *

(5)

Manufacturer: KEM Küppers Elektromechanik GmbH

(6)

Address: 85757 Karlsfeld, Germany

(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 10.2203 EG.

(9)

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

EN 60079-0:2006 General requirements
EN 60079-1:2007 Flameproof enclosure 'd'
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 d [ia] IIC T4

DEKRA EXAM GmbH

Bochum, dated 04. August 2010

Signed:

Dr. Franz Eickhoff

Certification body

Signed:

Dr. Michael Wittler

Special services unit

(13)

Appendix to

(14)

EC-Type Examination Certificate

BVS 10 ATEX E 054

(15) 15.1 Subject and type

Pulse-Amplifier with local display	type VTB * - Ex - *
Pickup Carrier-Frequency indicator	_____
Sensor length K, L, R, S	_____
Ex protected version	_____
Enclosure material	_____

ST = stainless steel, AL = aluminium

15.2 Description

The Pulse-Amplifier with local display is a battery supplied apparatus receiving r.p.m./flow measuring signals of non magnetic mechanical turbine-, spindle- or gear wheel flow meters without contacting the measuring medium.

The Pulse Amplifier comprises a flameproof stainless steel or light alloy enclosure with inspection glass, dealt with in EC-Type Examination Certificate FTZU 07 ATEX 0002U and FTZU 03 ATEX 0207U, containing two printed circuit boards with electronic components (VTB Display and VTB Amplifier), a battery holder and three non chargeable battery cells (primary cells).

The Pulse Amplifier with local display does not provide any connection facilities for external circuits.

The intrinsically safe circuit of the external pulse pick up coil (oscillator inductor), embedded in casting compound, is inserted into the enclosure by means of a permanently connected cable.

The batteries shall only be replaced by the manufacturer of the Pulse-Amplifier with local display type VTB * - Ex - *.

15.3 Parameters

15.3.1 Internal power supply battery

Nominal voltage	DC	3.7 V
Nominal current		150 mA
Capacitance		19.5 Ah

15.3.2 Intrinsically safe sensor circuit

Voltage	U_o	DC	3.7 V
Current	I_o		25 mA
Power	P_o		25 mW

15.3.3 Ambient temperature range $-40\text{ °C} \leq T_a \leq 50\text{ °C}$

(16) Test and assessment report

BVS PP 10.2203 EG as of 04.08.2010

(17) Special conditions for safe use

None

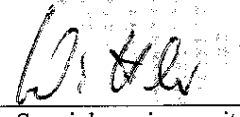
We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 04.08.2010
BVS-Scha/Her A 20091042

DEKRA EXAM GmbH



Certification body



Special services unit