



Translation

EC-Type Examination Certificate

(1)

(2)

- Directive 94/9/EC -

**Equipment and protective systems intended for use
in potentially explosive atmospheres**

(3)

DMT 02 ATEX E 091

(4)

Equipment: Pickup Carrier-Frequency Amplifier Type VTE*/P

(5)

Manufacturer: KEM Küppers Elektromechanik GmbH

(6)

Address: D 85757 Karlsfeld

(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 02.2047 EG.

(9)

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

EN 50014:1997+A1-A2 General requirements
EN 50020:1994 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 ia IIC T4

Deutsche Montan Technologie GmbH

Essen, dated 15. May 2002

Signed: Jockers

DMT-Certification body

Signed: Eickhoff

Head of special services unit

(13)

Appendix to

(14)

EC-Type Examination Certificate

DMT 02 ATEX E 091

 (15) 15.1 Subject and type

Pickup Carrier-Frequency Amplifier type VTE*/P

In the complete designation the "*" are replaced by letters marking mechanical details of the construction.

15.2 Description

The Pickup Carrier-Frequency Amplifier is an intrinsically safe 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 Pickup Carrier-Frequency Amplifier comprises a light alloy or stainless steel enclosure mountable to mechanical flow meters containing printed circuit boards with electronic components.

The intrinsically safe supply- and signal circuit is connected to a multi-pin plug.

The Pickup Carrier-Frequency Amplifier is designated for installation in hazardous areas requiring category 2G apparatus.

15.3 Parameters

15.3.1 Supply circuit

Connector-pins 1 und 3

Voltage	U_i	DC	30 V
Current	I_i		120 mA
Power	P_i		750 mW
Effective internal capacitance	C_i		negligible
Effective internal inductance	L_i		negligible

15.3.2 Signal-circuit Push/Pull

Connector-pins 2 and 3

Voltage	U_i	DC	30 V
Current	I_i		120 mA
Power	P_i		750 mW
Internal resistance	R_i		1350 Ω +/-5%
Effective internal capacitance	C_i		negligible
Effective internal inductance	L_i		negligible

15.3.3 Signal-circuit OC

Connector-pins 4 and 5

Voltage	U_i	DC	30 V
Current	I_i		120 mA
Power	P_i		750 mW
Internal resistance	R_i		1200 Ω +/-5%
Effective internal capacitance	C_i		negligible
Effective internal inductance	L_i		negligible

With regard to safety aspects, the signal circuit shall be considered as being interconnected galvanically to the supply circuit

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

(16) Test and assessment report
BVS PP 02.2047 EG as of 15.05.02

(17) Special conditions for safe use

None

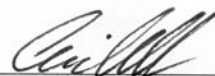
We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

45307 Essen, 15. May 2002
BVS-scha/Ar A 20020215

Deutsche Montan Technologie GmbH



DMT-Certification body



Head of special services unit