



Prüf- und Zertifizierungsstelle

ZELM Ex



(1) **EC-TYPE-EXAMINATION CERTIFICATE**
(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-TYPE-EXAMINATION CERTIFICATE Number:

ZELM 00 ATEX 0027

(4) Equipment: **Temperature transmitter SINEAX V624 types 624-33... , 624-93... , 624-34... and type 624-94...**

(5) Manufacturer: **Camille Bauer AG**

(6) Address: **Aargauerstrasse 7, CH-5610 Wohlen**

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Prüf- und Zertifizierungsstelle ZELM Ex, notified body No. 0820 in accordance with Article 9 of the Council Directive 94/9/EC 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 confidential report ZELM Ex 0479918028.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50 014: 1997

EN 50 020: 1994

(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 and construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

(12) The marking of the equipment shall include the following:



II (1) G D [EEx ia] IIC

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Braunschweig, December 22, 2000

Adolf Gruber

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EC-type-examination Certificates without signature and stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Prüf- und Zertifizierungsstelle ZELM Ex. In case of dispute, the German text shall prevail.



SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE ZELM 00 ATEX 0027**

(15) Description of equipment

The input signal of a temperature sensor, as PT100 or thermocouple, is converted into a current or voltage signal at the output. The adaptation to different measurement variables occurs by software via the serial interface by a IBM AT or compatible computer. The electric connection of the computer at the programming socket on the front panel of the device occurs via a specific programming adapter PK610 with a separate EC-type-examination certificate.

The points in the type designation characterize variants which have no influence on the explosion protection of the devices.

The maximum ambient temperature range conducts: -40 °C to +55 °C

Electrical data

Power supply
(screw terminals
10 and 11)

Type 624-33... and type 624-93...
direct voltage 24 V – 60 V -15 % / +33 % ($U_m = 125 \text{ V}$)
or
alternating voltage 24 V – 60 V $\pm 15 \%$ ($U_m = 253 \text{ V}$)
resp.

Type 624-34... and type 624-94...
direct voltage 85 V – 110 V -15 % / +10 % ($U_m = 125 \text{ V}$)
or
alternating voltage 85 V – 230 V $\pm 10 \%$ ($U_m = 253 \text{ V}$)

measuring input
(screw terminals
1, 2, 4, 5)

type of protection Intrinsic Safety EEx ia IIC/IIB
maximum values:

$$U_o = 7,2 \text{ V}$$
$$I_o = 3 \text{ mA}$$
$$P_o = 5,4 \text{ mW}$$

(linear output characteristic)

	IIC	IIB
max. permissible external capacitance C_o	13,5 μF	240 μF
max. permissible external inductance L_o	1 H	1 H

The following maximum values are also valid if capacitance and inductance are effective at the same time:

	IIC	IIB
max. permissible external capacitance C_o	1,1 μF	4,4 μF
max. permissible external inductance L_o	7 mH	25 mH



SCHEDULE TO EC-TYPE-EXAMINATION CERTIFIKATE ZELM 00 ATEX 0027

in the case of connection of the programming cable PK610, the following maximum values are valid:

$$U_o = 15,5 \text{ V}$$
$$I_o = 6,2 \text{ mA}$$
$$P_o = 24 \text{ mW}$$

(linear output characteristic)

	IIC	IIB
max. permissible external capacitance C_o	491 nF	3,09 μ F
max. permissible external inductance L_o	820 mH	1 H

The following maximum values are also valid if capacitance and inductance are effective at the same time:

	IIC	IIB
max. permissible external capacitance C_o	245 nF	883 nF
max. permissible external inductance L_o	1,6 mH	5,6 mH

Programming circuit only for a short-time connection of a standard personal computer via the programming cable type PK 610 with the EC-type-examination Certificate ZELM 99 ATEX 0011 to the programming connector.

Output circuit
(screw terminals 7 and 8) Nominal voltage $\leq 120V$
Only for the connection to devices with operating voltages less than 253 V

The measuring input and the programming circuit are safely electrically isolated from the output circuit and the power supply up to a peak value of the nominal voltage of 375 V.

(16) Report No.

ZELM Ex 0479918028

(17) Special conditions for safe use

not applicable

(18) Essential Health and Safety Requirements

met by standards

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