



(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:

**PTB 97 ATEX 2083**

(4) Equipment: Supply unit SINEAX B811 type 811-1... and  
Supply unit SIRAX B811 type 811-6...

(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 Physikalisch-Technische Bundesanstalt, notified body No. 0102 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 PTB Ex 97-27221.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**DIN EN 50014:1994-03      DIN EN 50020:1996-04      DIN EN 50014/prA1:1996**

(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.

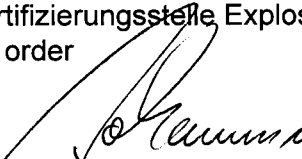
(12) The marking of the equipment shall include the following:

 **II (1) G [EEEx ia] IIC**

Zertifizierungsstelle Explosionsschutz

Braunschweig, 29.08.1997

By order

  
Dr.-Ing. U. Johannsmeyer  
Oberregierungsrat



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## Schedule

(13)

(14) **EC-type-examination Certificate No. PTB 97 ATEX 2083**

(15) Description of equipment

The supply unit is used for the supply of 2-wire-measuring transducers installed inside the explosion hazardous area as well as for the electrical isolation of the measured signal. Optionally the supply unit facilitates the communication between correspondingly equipped measuring transducers and suitable hand-held terminals or host-computers.

The supply unit SIRAX B811 of type 811-6... is only used to be plugged on the associated apparatus rack or on the apparatus rack SIRAX BP 902 of type 902-2... with EC-type-examination certificate PTB 97 ATEX 2113, manufactured by Camille Bauer AG.

The maximum permissible ambient temperature of the supply unit SINEAX B811 of type 811-1... is 55 °C.

The maximum permissible ambient temperature of the supply unit SIRAX B811 of type 811-6... is 40 °C.

The supply unit shall be installed outside the explosion hazardous area only.

### Electrical data

The indicated terminal clamps refer to the design SINEAX B811 of type 811-1...

The indicated connections refer to the design SIRAX B811 of type 811-6...

Auxiliary power	<b>type 811-13... resp. type 811-63...</b>	
(terminal clamps 10 and 5 resp. 14 and 20)	direct voltage	24 - 60 V -15% / +33% (U <sub>m</sub> = 125 V)
	or	
	alternating voltage	24 - 60 V ± 15% (U <sub>m</sub> = 253 V)
	resp.	
	<b>type 811-14... resp. type 811-64...</b>	
	direct voltage	85 - 110 V -15% / +10% (U <sub>m</sub> = 125 V)
	or	
	alternating voltage	85 - 230 V ± 10% (U <sub>m</sub> = 253 V)

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

## Schedule to EC-type-examination Certificate No. PTB 97 ATEX 2083

Measuring-output-circuits  
(terminal clamps 4 and  
9 resp. 3 and 8 resp.  
connections 26 and  
28 resp. 30 and 32)

per circuit  $U_{\max} = 15 \text{ V}$ ;  $I_{\max} = 25 \text{ mA}$   
maximum voltage ( $U_m = 253 \text{ V}$ )

Contact circuit  
(terminal clamps 13, 14,  
15 resp. connections 27,  
29, 31)

switching contacts  
alternating voltage up to 250 V, up to 5 A  
direct voltage up to 125 V, up to 0,24 A  
or up to 30 V, up to 1 A

maximum voltage  $U_m = 253 \text{ V}$

Measuring-supply-circuit  
(terminal clamps 1,2 resp.  
6, 7 resp. connections 1,3  
resp. 4,2)

type of protection Intrinsic Safety EEx ia IIB/IIC  
resp. EEx ib IIB/IIC  
(trapezoidal output characteristic)

maximum values:  $U_o = 21 \text{ V}$   
 $I_o = 75 \text{ mA}$   
 $P_o = 660 \text{ mW}$

**IIC resp. IIB**

max. permissible external inductance 6,7 mH 25 mH  
max. permissible external capacitance 178 nF 1260 nF

A certified intrinsically safe circuit of a hand-held terminal for communication with an interconnected intelligent measuring transducer may also be connected to the terminal clamps 1,2 resp. 6,7 resp. to the connections 1,3 resp. 4,2 considering the following maximum values:

maximum values:  $U_i = 9,4 \text{ V}$   
 $I_i = 25 \text{ mA}$   
 $P_i = 60 \text{ mW}$

If a hand-held terminal is connected, the interconnection determines the maximum values of the measuring-supply-circuit as mentioned below. The category "ia" is only possible, if the intrinsically safe circuit of the hand-held terminal corresponds to category "ia" too.

Measuring-supply-circuit  
(terminal clamps 1,2 resp.  
6,7 resp. connections 1,3  
resp. 4,2)

type of protection Intrinsic Safety EEx ia IIB/IIC  
resp. EEx ib IIB/IIC  
(trapezoidal output characteristic)

maximum values:  $U_o = 21 \text{ V}$   
 $I_o = 100 \text{ mA}$   
 $P_o = 660 \text{ mW}$

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	IIC	resp.	IIB
max. permissible external inductance	4	mH	15 mH
max. permissible external capacitance	178	nF	1260 nF

Additionally the possible effective internal reactances of the hand-held terminal must be taken into account.

The measuring-supply-circuit is safely electrically isolated from all further circuits up to a peak value of the nominal voltage of 375 V.

(16) Report PTB Ex 97-27221

(17) Special conditions for safe use

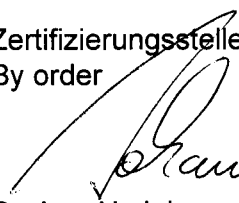
not applicable

(18) Essential Health and Safety Requirements

met by standards

Zertifizierungsstelle Explosionsschutz

By order

  
Dr.-Ing. U. Johannsmeyer  
Oberregierungsrat



Braunschweig, 29.08.1997