

# (1) EC-TYPE-EXAMINATION CERTIFICATE

# ZELM ex

- (2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**
- (3) EC-TYPE-EXAMINATION CERTIFICATE Number:

## ZELM 12 ATEX 0482 X

- (4) Equipment: **Transmitter for angular position type KINAX HW730-2\*\*\* resp. HW730-3\*\*\***
- (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 1491119902
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 60079-0:2009                      EN 60079-11:2007                      EN 60079-31:2009**
- (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 or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this Certificate.
- (12) The marking of the equipment shall include the following:



**II 2 G Ex ia IIC T4 Gb bzw.  
II 2 D Ex ia IIIC T80°C Db bzw.  
II 2 D Ex tb IIIC T80°C Db**

Braunschweig, February 29, 2012

## ZELM ex

**Zertifizierungs-  
stelle**

**Zertifizierungsstelle ZELM EX  
Dipl.-Ing. Harald Zelm**



Sheet 1 of 2

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

**ZELM ex**  
Prüf- und Zertifizierungsstelle  
Siekgraben 56 · D-38124 Braunschweig



(13)

## SCHEDULE

# ZELM ex

### (14) EC-TYPE-EXAMINATION CERTIFICATE ZELM 12 ATEX 0482 X

#### (15) Description of equipment

The transmitter for angular position type KINAX HW730-2\*\*\* resp. HW730-3\*\*\* convert the angular position of a shaft contact free into a current signal that is proportional to the angular of the shaft.

Type designation code: KINAX HW730-a \*\*\*

a, Certification: 2, type of protection „Intrinsic Safety“  
3, type of protection „protection by enclosure“

The signs „\*\*“ in the type designation code can be replaced by letters or numbers, these alphanumeric signs indicate different versions of the device, which have no influence on the explosion protection concept of the device.

permissible ambient temperature range:  $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq 75^{\circ}\text{C}$

#### Electrical Data KINAX HW730-2\*\*\*:

Output circuit (Terminals + -) type of protection Intrinsic Safety Ex ia IIC resp. Ex ia IIIC  
only for connection to an certified intrinsic safe circuit  
with following maximum values:

$$\begin{aligned}U_i &= 30 \text{ V} \\I_i &= 160 \text{ mA} \\P_i &\leq 1 \text{ W}\end{aligned}$$

maximum effective internal capacitance:

$$C_i = 22 \text{ nF}$$

maximum effective internal inductance:

$$L_i = 7,3 \text{ } \mu\text{H}$$

#### Electrical Data KINAX HW730-3\*\*\*:

Output circuit (Terminals + -) only for connection to a circuit with following maximum values:

$$\begin{aligned}U &= 24 \text{ VDC (+30%, -50%)} \\I &= 4 - 20 \text{ mA}\end{aligned}$$

#### (16) Report No.

ZELM Ex 1491119902

#### (17) Special conditions for safe use

1. The transmitter for angular position type KINAX HW730-2\*\*\* and HW730-3\*\*\* are only intended for acquisition of the angular position of the shaft. The usage as a rotational speed sensor is not permitted.
2. The instruction manual has to be observed.

#### (18) Essential Health and Safety Requirements

Fulfilled by standards.

Braunschweig, February 29, 2012

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Sheet 2 of 2

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