

Translation

(1) **EC-Type-Examination Certificate**

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



- (3) **Certificate Number** TÜV 11 ATEX 080882
- (4) for the equipment: Grounding Control Device type EKX-4
- (5) of the manufacturer: **H. Timm Elektronik GmbH**
- (6) Address: Humboldtstrasse 29
21509 Glinde
Deutschland
- Order number: 8000394236
- Date of issue: 2012-02-21

- (7) The design of this equipment or protective system and any acceptable variation thereto are specified in the schedule to this EC-Type-Examination Certificate and the documents therein referred to.
- (8) The TÜV NORD CERT GmbH, notified body No. 0044 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system 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 No. 11 203 080882.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2009

EN 60079-5:2007


EN 60079-7:2007

EN 60079-11:2007

EN 60079-31:2009

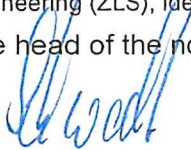
EN 61241-11:2006

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 the 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 or protective system must include the following:

 **II 2 G Ex e q [ib] IIC T4 Gb bzw. II 2 D Ex t [ibD] IIIC T80°C Db**

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the notified body



Schwedt

Hanover office, Am TÜV 1, 30519 Hanover, Fon +49 (0)511 986 1455, Fax +49 (0)511 986 1590

(13) **SCHEDULE**

(14) **EC-Type-Examination Certificate No. TÜV 11 ATEX 080882**

(15) Description of equipment

The grounding control device type EKX-4 together with the connected grounding cable with grounding clamp is intended for the supervision of the electrostatic grounding of containers or tank trucks during the decanting or loading with products which can form explosive gas or dust atmospheres.

Implemented into the device is a power supply unit which is inserted in an additional enclosure and realized in type of protection "powder filling". The connection of the supply voltage occurs with serial terminal blocks in type of protection "increased safety" together with three potential free switch contacts. The inserted electronics is carried out in type of protection "intrinsic safety" and provides, likewise via terminal blocks, the measuring circuit for the connection of the grounding cable and the electronic signal output (NAMUR). The enclosure is realized with a degree of protection IP65 and type of protection "dust ignition protection by enclosure".

The device is intended for the installation in zone 1 or zone 21 and corresponds as a device of the group II to the equipment protection level Gb respectively as a device of the group III to the protection level Db.

Technical data

Permissible ambient temperature range:	-30°C ≤ T _a ≤ +60 °C
Power supply (terminals L and N)	in type of protection Ex e 230V ±10% 50Hz appr. 10VA
Permissible outputs (terminals 1 and 2 resp. 3 and 4)	2 isolated make contacts in type of protection Ex e Switching power max. 250VAC, 3A, 100VA
Controlling output (terminals 5, 6 and 7)	1 isolated two-way contact in type of protection Ex e Switching power max. 250VAC, 3A, 100VA
NAMUR signal output (terminals 8 and 9)	in type of protection „Intrinsic safety“ Ex ib IIC only for the connection to certified intrinsic safe circuits. Maximum values: U _i = 20 V I _i = 20 mA P _i = 400 mW

The effective inner capacitances and inductances are negligibly small.

Schedule EC-Type Examination Certificate No. TÜV 11 ATEX 080882

Measuring circuit in type of protection „Intrinsic safety“ Ex ib IIC
(terminals 10 and 11) resp. Ex ibD IIIC

only for the connection of the ground cable with a maximum length of 50m.

Maximum values: $U_o = 6,7 \text{ V}$
 $I_o = 68 \text{ mA}$
 $P_o = 114 \text{ mW}$

Note:

The measuring circuit is galvanically connected to ground potential. Potential equalization has to exist in the complete course of the erection of the intrinsically safe measuring circuit.

(16) Test documents are listed in the test report No. 11 203 080882

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones