

(1) EC-TYPE EXAMINATION CERTIFICATE

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

(3) EC-Type Examination Certificate Number: **KEMA 06ATEX0257** Issue Number: 1

(4) Equipment: **Dual Channel Shunt Diode Barrier, Model 218AY04**

(5) Manufacturer: **Kraus Global Inc.**

(6) Address: **20 Paquin Road, Winnipeg, MB, Canada, R2J 3V9**

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

(8) KEMA Quality B.V., notified body number 0344 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 confidential test report number 2097879.

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

EN 60079-0 : 2006

IEC 60079-11 : 2006

(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 according 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 shall include the following:



II (2) G

[Ex ib] IIC

This certificate is issued on 26 January 2007 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.



T. Pijpker
Certification Manager



(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 06ATEX0257**

Issue No. 1

(15) **Description**

The Model 218AY04 is a Dual Channel Shunt Diode Barrier with each channel providing an intrinsically safe output for group IIC. The barrier is intended for use in non-hazardous locations. The barrier consists of a printed circuit board encapsulated within a zinc plated steel enclosure. Wires are provided for the electrical connections.

Electrical data

The barrier has the following entity parameters:

$U_m = 250 \text{ V}$; $U_o = 7,2 \text{ V}$; $I_o = 4 \text{ mA}$; $P_o = 8 \text{ mW}$; $L_o = 1 \text{ H}$; $C_o = 13,5 \text{ }\mu\text{F}$ (for IIA 1000 μF)

Installation instructions

Refer to Installation Drawing 218AY04.INS.

Routine tests

Each barrier assembly shall be tested in accordance with Kraus Global Inc. Test Procedure 218AY04.

(16) **Test Report**

KEMA No. 2097879.

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

None.

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

Assured by compliance with the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 2097879.