



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx KIWA 16.0011X Issue No: 0 Certificate history:  
Issue No. 0 (2016-11-17)

Status: **Current** Page 1 of 3

Date of Issue: **2016-11-17**

Applicant: **Krohne Messtechnik GmbH**  
Ludwig-Krohne-Straße 5  
47058 Duisburg  
**Germany**

Equipment: **Loop powered local display/control unit, Model SMARTMAC 200W**  
*Optional accessory:*

Type of Protection: **Ex i**

Marking: Ex ia IIC T4 Gb

*Approved for issue on behalf of the IECEx  
Certification Body:*

Pieter van Breugel

*Position:*

Certification Officer

*Signature:  
(for printed version)*

*Date:*

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**Kiwa Nederland B.V. (Unit Kiwa ExVision)**  
Wilmersdorf 50  
7327 AC Apeldoorn  
P.O. Box 137  
The Netherlands





# IECEx Certificate of Conformity

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Manufacturer: **Krohne Messtechnik GmbH**  
Ludwig-Krohne-Straße 5  
47058 Duisburg  
Germany

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

## STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

**IEC 60079-0 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0  
**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

[NL/KIWA/ExTR16.0013/00](#)

Quality Assessment Report:

[DE/PTB/QAR06.0002/04](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

Local display/control unit Model SMARTMAC 200W is a 4 - 20 mA loop powered display with metallic enclosure that allows the indication of physical quantities and configuration and calibration of a connected sensor. The apparatus is provided with HART communication.

Ambient temperature range -40 °C to +55 °C.

### Electrical data

Supply/output circuit (terminals F, G, H):

In type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with following maximum values:  
 $U_i = 30 \text{ V}$ ;  $I_i = 120 \text{ mA}$ ;  $P_i = 1 \text{ W}$ ;  $C_i = 45 \text{ nF}$ ;  $L_i = 0 \text{ }\mu\text{H}$ .

The connected external capacitance and inductance at the sensor input circuit shall be added to  $C_i$  and  $L_i$  respectively.

Sensor input circuit (terminals S, A, B):

In type of protection intrinsic safety, with following maximum values:  
 $U_o = 30 \text{ V}$ ;  $I_o = 120 \text{ mA}$ ;  $P_o = 1 \text{ W}$ .

**CONDITIONS OF CERTIFICATION: YES as shown below:**

