



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

Certificate No.:	IECEX DEK 14.0060	Issue No: 2	<u>Certificate history:</u> Issue No. 2 (2016-12-20) Issue No. 1 (2015-07-30) Issue No. 0 (2014-10-17)
Status:	Current	Page 1 of 4	
Date of Issue:	2016-12-20		
Applicant:	Bronkhorst High-Tech B.V. Nijverheidsstraat 1a 7261 AK Ruurlo The Netherlands		
Equipment:	Measuring head Model X100		
Optional accessory:			
Type of Protection:	Ex i		
Marking:	Ex ib IIC T4 Gb		

Approved for issue on behalf of the IECEX
Certification Body:

R. Schuller

Position:

Certification Manager

Signature:
(for printed version)

Date:

2016-12-20

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:

DEKRA Certification B.V.
Meander 1051,
6825 MJ Arnhem
The Netherlands





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Page 2 of 4

Manufacturer: **Bronkhorst High-Tech B.V.**
Nijverheidsstraat 1a
7261 AK
Ruurlo
The Netherlands

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/DEK/ExTR14.0004/02](#)

Quality Assessment Report:

[NL/DEK/QAR12.0036/02](#)



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Certificate No: IECEx DEK 14.0060

Issue No: 2

Date of Issue: 2016-12-20

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The measuring head model X100 is used in the Bronkhorst High-Tech B.V. mass flow meter.
The sensor is operating on a principle of heat transfer by sensing the delta-T along a heated section of a capillary tube.

Ambient temperature range -10 °C to +70 °C.

Electrical data

Signal circuit (terminals 1 and 3):
in type of protection intrinsic safety Ex ib IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 28 \text{ V}$; $I_i = 98 \text{ mA}$; $P_i = 686 \text{ mW}$; $C_i = 1 \text{ nF}$; $L_i = 0.3 \text{ mH}$.

CONDITIONS OF CERTIFICATION: NO



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Issue No: 2

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Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

minor constructional changes and additional enclosure.