



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX KIWA 15.0014X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2020-04-24\)](#)
[Issue 0 \(2016-01-25\)](#)
Date of Issue: 2025-03-04
Applicant: **Klay Instruments B.V.**
Nijverheidsweg 5
Dwingeloo 7991CZ
Netherlands
Equipment: **Pressure-, Level-, Differential pressure and Temperature transmitter Series 4000, Series 4000-SAN, Series 4000-VALVE, Series DP-4000, Series TT-4000 and Series TT-4000-Remote**
Optional accessory:
Type of Protection: **Ex i**
Marking: Ex ia IIC T4 Ga
Ex ia IIC T5 Ga
Ex ia IIC T6 Ga

Approved for issue on behalf of the IECEx
Certification Body:

Dave Magee

Position:

Senior Director of Operations, Toronto

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

CSA Group
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Toronto Ontario M9W 1R3
Canada





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Manufacturer: **Klay Instruments B.V.**
Nijverheidsweg 5
7991 CZ Dwingeloo
Netherlands

Manufacturing
locations: **Klay Instruments B.V.**
Nijverheidsweg 5
7991 CZ Dwingeloo
Netherlands

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with 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 Reports:

[NL/KIWA/ExTR15.0013/00](#)

[NL/KIWA/ExTR15.0013/01](#)

[NL/KIWA/ExTR15.0013/02](#)

Quality Assessment Report:

[NL/DEK/QAR12.0013/08](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Transmitters Series 4000 are intrinsically safe Pressure, Level, Differential pressure and Temperature transmitters. The measurement signal of the applied pressure at the sensor is converted into a 4 - 20 mA signal and digital communication (Option HART®).

The following types with their application are available:

Type	Application
Series 4000	Pressure and Level
Series 4000-SAN*	Pressure and Level
Series 4000-VALVE**	Pressure and Level
Series DP-4000	Differential Pressure
Series TT-4000	Temperature
Series TT-4000 Remote	Temperature

* Transmitters Series 4000 and Series 4000-SAN are identical, with the exception that the process connection of the 4000-SAN is suitable for hygienic applications (e.g. food, chemical and pharmaceutical industries).

** Transmitters Series 4000-VALVE are identical to the transmitters Series 4000 and Series 4000- SAN, with the exception that a valve is located between the transmitter and the process.

As standard the transmitters are provided with a rotatable graphic display for local read-out and control, behind a blind cover. For local read-out a transparent cover can be provided (Option I)

The transmitters consist of a stainless steel enclosure with electronic circuits that are identical for all versions. The sensor and the process connection are directly mounted to the stainless steel enclosure and are different for the several versions. The Sensor of transmitters Series TT-4000-Remote is connected via an extension cable.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- From a safety point of view, the intrinsically safe supply and output circuit is considered to be earthed.
- Refer to Annex 1 to this certificate for thermal data.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, **Issue 2**, introduced the following changes, refer to the annexe for a comprehensive history:

1. Hart Module HM2000 changed to HM4000
2. Manufacturer's Documents added for HM4000
3. Change "Process Temperature" to Sensor (Process) Temperature

Annex:

[IECEX KIWA 15.0014X Issue 2 Annexe.pdf](#)

Annexe to: IECEx KIWA 15.0014X

Applicant: Klay Instruments B.V.

Apparatus: Pressure-, Level-, Differential pressure and Temperature transmitter Series 4000, Series 4000-SAN, Series 4000-VALVE, Series DP-4000, Series TT-4000 and Series TT-4000-Remote



Thermal data

The relation between transmitter option, electrical variant temperature class, ambient temperature and sensor (process) temperature is as follows:

Option, Electrical Variant	Temperature Class	Ambient Temperature	Sensor (Process) Temperature
-, Single 4 -20 mA output G190, with dual 4-20 mA output	T4	-20 °C to +70 °C	-20 °C to +100 °C
G185, with single 4-20 mA output	T5	-20 °C to +70 °C	-20 °C to +100 °C
	T6	-20 °C to +31°C	-20 °C to +50°C

Electrical data

Supply and output circuit (terminals + and -):

In type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with following maximum values per output channel:

$U_i = 30 \text{ Vdc}$; $I_i = 110 \text{ mA}$; $P_i = 0.9 \text{ W}$; $C_i = 41 \text{ nF}$; $L_i = 0.08 \text{ mH}$.

Full certificate change history

Issue 1 – this Issue introduced the following changes:

1. Update from IEC 60079-0 edition 6.0 to edition 7.0.
2. Removal of IEC 60079-26 (no longer applicable for EPL Ga equipment)

Issue 2 – this Issue introduced the following changes:

1. Hart Module HM2000 changed to HM4000
2. Manufacturer's Documents added for HM4000
3. Change "Process Temperature" to Sensor (Process) Temperature