



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **KIWA 15ATEX0031X** Issue: **3**

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

5 Applicant: **Klay Instruments B.V.**

6 Address: **Nijverheidsweg 5  
Dwingeloo 7991 CZ  
Netherlands**

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-11:2012

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 1 G  
Ex ia IIC T4 Ga  
Ex ia IIC T5 Ga  
Ex ia IIC T6 Ga

Signed:

Michelle Halliwell

Title: Senior Director of Operations



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## SCHEDULE

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#### 13 DESCRIPTION OF EQUIPMENT

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)

#### 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	T4	-20 °C to +70 °C	-20 °C to +100 °C
G190, with dual 4 - 20 mA output	T5	-20 °C to +70 °C	-20 °C to +100 °C
G185, with single 4 - 20 mA output			

#### 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:

$U_i = 30 \text{ Vdc}$ ;  $I_i = 110 \text{ mA}$ ;  $P_i = 0,9 \text{ W}$ ;  $C_i = 41 \text{ nF}$ ;  $L_i = 0,08 \text{ mH}$ .

**Variation 1** – This variation introduced the following changes:

- Upgrade from EN 60079-0 : 2012 + A11 : 2013 to EN IEC 60079-0 : 2018.
- Removal of EN 60079-26 (no longer applicable for EPL Ga equipment).

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**Variation 2** – This variation introduced the following changes:

- i. Hart Module HM2000 changed to HM4000
- ii. Manufacturer's Documents added for HM4000
- iii. Change "Process Temperature" to Sensor (Process) Temperature

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
1	21 January 2016	150431313	The release of the prime certificate.
2	24 April 2020	150401313	The introduction of Variation 1.
3	04 March 2025	R80236298A	The introduction of Variation 2.

#### 15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 From a safety point of view, the supply and output circuit is considered to be earthed.

15.2 Refer to section 13 for thermal data

#### 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

#### 17 CONDITIONS OF MANUFACTURE

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

# Certificate Annexe



Certificate Number: KIWA 15ATEX0031X

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

Applicant: Klay Instruments B.V.

Issue 1 & 2 – Refer to section 14.2 for the drawings detailed in the associated reports.

## Issue 3

Drawing	Sheets	Rev.	Date (Stamp)	Title
40001-11-14102024	1 to 3	11	30 Jan 25	Manufacturer's Documents
43004-HM4000	1 to 6	01	30 Jan 25	Partlist – HM4000 (Optional HART® module)
44004-HM4000	1 of 1	01	30 Jan 25	PCB Specification – HM4000 (Optional HART® module)
44008-HM4000	1 to 9	01	30 Jan 25	Gerbers + PCB-Specification – HM4000 (Optional HART® module)
44012-HM4000	1 to 3	01	30 Jan 25	Electronic Schematic – HM4000 (Optional HART® module)
46014-HM4000	1 to 37	01	30 Jan 25	DATASHEET – HART IC – SD2057 / AD5700 (HM4000)
46015-HM4000	1 to 12	01	30 Jan 25	DATASHEET – HART IC – SD2015 SDIC (Second source) (HM4000)

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