



# 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](http://www.iecex.com)

Certificate No.:	<b>IECEX EESF 20.0044X</b>	Page 1 of 5	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 2	<a href="#">Issue 1 (2021-06-17)</a> <a href="#">Issue 0 (2021-02-08)</a>
Date of Issue:	2023-08-16		
Applicant:	<b>Vaisala Oyj</b> Vanha Nurmijärventie 21 FI-01670 VANTAA Finland		
Equipment:	<b>HMT370EX Humidity and Temperature Transmitter</b>		
Optional accessory:	Vaisala USB-cable		
Type of Protection:	<b>Ex ia</b>		
Marking:	<b>Ex ia IIC T4 Ga</b> <b>Ex ia IIC T<sub>200</sub> 85 °C Da</b> <b>-40 °C ≤ T<sub>amb</sub> ≤ +60 °C.</b>		

Approved for issue on behalf of the IECEx  
Certification Body:

**Jenni Hirvelä**

Position:

**Senior Expert**

Signature:  
(for printed version)

Date:  
(for printed version)

2023-08-16

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Finland





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Manufacturer: **Vaisala Oyj**  
Vanha Nurmijärventie 21  
FI-01670 VANTAA  
**Finland**

Manufacturing  
locations: **Vaisala Oyj**  
Vanha Nurmijärventie 21  
FI-01670 VANTAA  
**Finland**

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 Report:

[FI/EESF/ExTR20.0043/02](#)

Quality Assessment Report:

[FI/EESF/QAR19.0011/03](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Vaisala Intrinsically Safe Humidity and Temperature Transmitter HMT370EX Series is designed with the protection concept Ex ia and is intended to be used in Groups IIC and IIIC. Equipment consists of the HMT370EX transmitter and HMP370EX probe. The HMT370EX consist of three main parts: transmitter body, detachable probe body and probe head attached to the probe body, either directly or with a cable. The enclosure Type of Protection of the transmitter body is IP54 (IEC 60079-0), but IP66 (IEC 60079-0) when the probe body is attached.

### Input values of 4...20 mA loops (ch. 1 and 2):

**Ui = 28 Vdc**

**Ii = 100 mA**

**Pi = 700 mW**

**Ci = 12.1 nF**

**Li = 16 µH.**

Two transmitter body types are available in HMT370EX series.

Model Explanation	Tamb range	Temperature class
Display and 4 button keypad	-40 °C ... +60 °C	T4
LED indicator	-40 °C ... +60 °C	T4

The probe can only be used together with the transmitter body in explosive atmospheres. In safe area, transmitter and probe can be used with Vaisala USB-cable connected to a PC.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The cable glands and blanking elements used with the transmitter shall conform to requirements of IEC 60079-0.
2. For EPL Ga Group II it has to be ensured that sparks due to impact or friction do not occur.



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**Equipment (continued):**

A series of probes (HMP370EX) are available in the HMT370EX series. They all have the same probe body, but different probe head. The differences between the probes are process interface, temperature range and pressure range. Probe heads come with three different cable lengths. The available probe models are listed below:

Model	Explanation	Cable lengths	Ambient temperature range	Probe head temperature	Probe head temp. class	Probe head pressure range
1	for wall mounting	No Cable	-40 °C ... +60 °C	-40 °C ... +60 °C	T4	
3	for confined spaces	2, 5 and 10 m	-40 °C ... +60 °C	-40 °C ... +55 °C	T6	
				-40 °C ... +100 °C	T5	
				-40 °C ... +120 °C	T4	
4	for pressurized spaces	2, 5 and 10 m	-40 °C ... +60 °C	-70 °C ... +55 °C	T6	0 ... 10 MPa
				-70 °C ... +100 °C	T5	
				-70 °C ... +135 °C	T4	
				-70 °C ... +180 °C	T3	
5	for high temperatures	2, 5 and 10 m	-40 °C ... +60 °C	-70 °C ... +55 °C	T6	
				-70 °C ... +100 °C	T5	
				-70 °C ... +135 °C	T4	
				-70 °C ... +180 °C	T3	
7	for high humidities	2, 5 and 10 m	-40 °C ... +60 °C	-70 °C ... +55 °C	T6	0... 1 MPa
				-70 °C ... +100 °C	T5	
				-70 °C ... +135 °C	T4	
				-70 °C ... +180 °C	T3	
8	for pressurized pipelines	2, 5 and 10 m	-40 °C ... +60 °C	-70 °C ... +55 °C	T6	0 ... 4 MPa
				-70 °C ... +100 °C	T5	
				-70 °C ... +135 °C	T4	
				-70 °C ... +180 °C	T3	
F	for moisture in oil	2, 5 and 10 m	-40 °C ... +60 °C	-70 °C ... +55 °C	T6	0 ... 4 MPa
				-70 °C ... +100 °C	T5	
				-70 °C ... +135 °C	T4	
				-70 °C ... +180 °C	T3	
H	for moisture in fuel	2, 5 and 10 m	-40 °C ... +60 °C	-70 °C ... +55 °C	T6	0 ... 4 MPa
				-70 °C ... +100 °C	T5	
				-70 °C ... +135 °C	T4	
				-70 °C ... +180 °C	T3	



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

New window materials introduced. IP66 in accordance with IEC 60079-0:2017 assessed when probe body is attached to transmitter.