

TYPE-EXAMINATION CERTIFICATE

1. Type-examination Certificate (Module A)
2. Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)



3. Type examination certificate Nr **ITS-I 23 ATEX 38197X Rev. 0**

4. **Product:** Flame Sensor

5. **Manufacturer:** Fireye Inc. **Applicant:** Fireye Inc.

6. **Address:** 3 Manchester Road **Address:** 3 Manchester Road
Derry, NH 03038 USA Derry, NH 03038 USA

7. This product and any acceptable variation thereto are specified in the schedule to this certificate and therein referred to.

8. INTERTEK ITALIA S.p.A., certifies that the equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmosphere, given in Annex II of the Directive.

The examination and tests results are recorded in confidential technical evaluation Intertek Report Nr. 105316524CRT-002a.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 except in respect of those requirements referred to at item 16 of the Schedule

10. If the sign X is placed after the certificate number, it indicates that the product is subject to Special Conditions for Safe Use specified in the schedule to this certificate.

11. This Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12. The marking of the product shall include the following:



II 3 G
Ex ec IIC T3 Gc
Tamb: -15°C ≤ Ta ≤ +140°C

20 November 2023

Certificate issue date



Todd L. Relyea
Certification Officer/Manager ATEX
Intertek Italia S.p.A.



This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

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SCHEDULE

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13. DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM

The equipment is a Turbine Flame Sensor which responds to ultraviolet optical energy from the flame (200-400 nanometers) and has a loop-powered 4-20mA output representing flame brightness from a very low level. The Sensor has an electrical connection on one side and a fiber optic cable assembly on the opposite side.

VFS2000-K, NED-GEAC-2000-K, or NED-GEAC-2000; -K may be followed by two numbers.

Used with 59-606XXX or 59-621XXX cable assembly (XXX = length)

The only difference between VFS-2000 and NED-GEAC-2000 is the part number.

14. DRAWINGS AND DOCUMENTS

TITLE	DOCUMENT Nr	LEVEL	DATE
Label, Unit	55-8249	3	11/10/2023
Housing Electronics Turbine	1-1183	1	4/26/2023
Connector, 5 Pin Flanged	21-925	1	4/28/2023
O-Ring Seal	29-441	2	9/1/2023
O-Ring Seal	34-300	2	9/1/2023
O-Ring Seal	34-299	2	9/1/2023
Seal, Gasket, Connector	29-444	2	9/1/2023
Cap Housing Turbine	44-169	1	4/26/2023
Turbine Flame Sensor Assembly	60-2964	3	09/05/2023
Electronic Assembly	60-2986	2	6/9/2023
Turbine sensor PCB	3-2967	8	10/27/2023
Top Level Schematic	75-6825	6	9/22/2023
Cable Assembly, Turbine Sensor, EU	59-621	1	8/28/2023
Cable Assembly, Turbine Sensor	59-606	2	8/28/2023
Lens, Plano Convex	46-202	1	4/28/2023
Objective Lens Assembly	61-7447	2	9/01/2023
Fiber Optic Bundle Turbine	61-7492	1	4/26/2023
Adapter, Lens Turbine	63-167	1	4/26/2023
Turbine Sensor Assembly with Window	60-2989	3	7/13/2023
61-7424_Turbine Sensor PCA Agency Parts List	127-3639	6	9/17/2023
NED-GEAC-2000 Turbine Flame Sensor	CU-123	-	9/21/2023
VFS-2000 Turbine Flame Sensor	CU-125	-	9/27/2023

Copies of the above-listed documents are kept at Intertek Italia S.p.A. archive.

15. SPECIFIC CONDITIONS OF USE

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – CLEAN WITH A DAMP CLOTH ONLY



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16. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS

The relevant Essential Health and Safety Requirements have been identified and assessed in Intertek Report Nr. 105316524CRT-002a Revision 0 dated 11.13.2023

17. ROUTINE (FACTORY) TESTS

Dielectric test at 500 V r.m.s. maintained for at least 1 minute without dielectric breakdown occurring between circuits and dead metal.

Alternatively, a test shall be carried out at 1.2 times the test voltage, but maintained for at least 100 ms.