

# EU TYPE-EXAMINATION CERTIFICATE

1. **EU type-examination Certificate (Module B)**

2. **Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)**



3. **EU type examination certificate Nr**      **ITS16ATEX18438 R.2**

4. **Product:**                      Flame Tracker™ (RS-FS-9004)

5. **Manufacturer:**            Reuter-Stokes, LLC

**Applicant:**                      Reuter-Stokes, LLC

6. **Address:**                    8499 Darrow Road,  
Twinsburg, OH 44087  
USA

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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., Notified Body n° 2575 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and Council of the 26 February 2014, 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. 102368390CRT-006d, -006e and -006f dated 14 June 2016, 104619750DAL-007 dated 11 March 2022 and 105603871DAL-002 dated 2024-01-17.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 and EN 60079-11: 2012 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 Specific Conditions of Use specified in the schedule to this certificate.

11. This EU-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 1 G  
Ex ia IIB T2...T3 Ga  
-51°C ≤ Ta ≤ 150°C  
-51°C ≤ Ta ≤ 200°C (Model with cooling option)

29 February 2024

**Certificate issue date**



**Todd L. Relyea**  
Certification Officer  
Intertek Italia S.p.A. (NB 2575)



PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements

This certificate has been issued by Intertek Italia S.p.A. NB 2575 on transfer from Intertek Testing & Certification Ltd. (NB 0359) using the same issued original certificate number.



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.

**Intertek Italia S.p.A.** Via Miglioli, 2/A - 20063 Cernusco sul Naviglio, Milano - Italy

LFT-EMEA-IT-ATEX-OP-23a (8 March 2022)



## SCHEDULE

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### 13. DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM

The Flame Tracker is used to detect a flame/combustion optically. The product senses the UV light given off by the flame and produces a 4-20mA signal in response to the flame. The product has a sealed, argon filled metal enclosure.

For RS-FS-9004 is a single unit with a thread mounting head that houses glass lens where the photo diode is positioned, this threads onto the combustion chamber and monitors the flame/combustion. The equipment is powered by a certified Intrinsically Safe Barrier satisfying the specific entity parameters. The RS-FS-9004 has a cooling option allowing installation in an ambient up to 200°C with a T2 temperature classification. The circuit board is evaluated with both through mount components as per schematic under controlled drawing no. FS-9004-20S-CERT and surface mount board as per schematic under controlled drawing no. FS-9004-60S-CERT.

Entity Parameters:

- $U_i=30V_{dc}$
- $I_i=110mA$
- $P_i=770mW$
- $C_i=455nF$
- $L_i=303\mu H$

\*Note: The inductance is entirely due to the interconnect cable that carries the 4-20 mA current. There is no inductance in the sensor itself. As such the mixed circuit conditions do NOT apply when calculating the IS barrier. 100% of entity parameters can be used.

CE Marking shall be accompanied by the identification number of the Notified Body responsible for surveillance of production.

### 14. DRAWINGS AND DOCUMENTS

TITLE	DOCUMENT Nr	LEVEL	DATE
SCH, FLAME SENSOR DIV 1	FS-9004-20S-CERT	A	02/08/2022
SCH, SMT FLAME SENSOR	FS-9004-60S-CERT	A	02/08/2022
*CERT, FLAME SENSOR PCB	FS-9004-60B-CERT	C	07/12/2023
INTRINSICALLY SAFE CONTROL DRAWING	FS-9004-IWD	K	12/16/2021
FLAME SENSOR (UV)	FS-9001-CERT	A	02/07/2022
PCB FLAME SENSOR DIV1	FS-9004-20B-CERT	A	03/02/2022
*QUICK START MANUAL	FS-9004QSM-CERT	NC	July 2023
*CERTIFICATION MARKING CB	FS-9004-24-CB	H	11/08/2023
FLAME SENSOR INTERCONNECTING CABLE	RS-E2-0285-CERT	NR	04/07/2014



## SCHEDULE

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*Note: An \* is included before the title of documents that are new or revised.*  
Copies of the above listed documents are kept at Intertek Italia S.p.A. archive.

### 15. SPECIFIC CONDITIONS OF USE

None

### 16. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS

The relevant Essential Health and Safety Requirements have been identified and assessed in Intertek Report Nr. 105603871DAL-002 dated 2024-01-17.

### 17. ROUTINE (FACTORY) TESTS

None

### 18. DETAIL OF CERTIFICATE CHANGES

#### R.1 (11 March 2022)

- Updated standard from EN 60079-0:2012 + A11 to EN IEC 60079-0:2018.
- Updated Manufacturer from "GE Reuter Stokes, Inc." to "Reuter Stokes, LLC".
- Added below note in product information:

\*Note: The inductance is entirely due to the cable, there is no inductance in the sensor itself. As such the mixed circuit conditions do NOT apply when calculating the IS barrier. 100% of entity parameters can be used.

#### R.2 (07 November 2023)

- Updated Ingress Protection from IP20 to IP54
- Updated drawing FS-9004-24-CB from "Rev G Date 02/03/2022" to "Rev H Date 11/08/2023"
- Updated drawing FS-9004-60B-CERT from "Rev B Date 03/02/2022" to "Rev C Date 07/12/2023"
- Updated drawing FS-9004QSM from "Title: QUICK START GUIDE MODEL RS-FS-9004, Drawing# FS-9004QSM, Rev F Date 03/02/2022" to "Title: QUICK START MANUAL, Drawing#FS-9004QSM-CERT, Rev NC Date July 2023"
- Updated text in Product Description section from "The inductance is entirely due to the cable, there is no inductance in the sensor itself" to "The inductance is entirely due to the interconnect cable that carries the 4-20 mA current. There is no inductance in the sensor itself."