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 ETL 16.0007X**	Page 1 of 4
Status:	**Current**	Issue No: 3
Date of Issue:	2024-02-29	

Applicant: **Reuter Stokes, LLC**
8499 Darrow Road, Twinsburg, OH-44087
United States of America

Equipment: **Flame Tracker**

Optional accessory: NONE

Type of Protection: **Intrinsic Safety 'ia'**

Marking: Ex ia IIB T1, T2, T3 Ga
for Ta see Special Condition of Use for details.
IECEx ETL 16.0007X

Approved for issue on behalf of the IECEx
Certification Body:

Todd L. Relyea

Position:

Certification Officer

Signature:
(for printed version)

Date:
(for printed version)

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

Intertek
3933 US Route 11 South
Cortland NY 13045-2995
United States of America

IECEx Certificate of Conformity

Manufacturer:	**Reuter Stokes, LLC** 8499 Darrow Road, Twinsburg, OH-44087, **United States of America**
Manufacturing locations:	**Reuter Stokes, LLC** 8499 Darrow Road, Twinsburg, OH-44087, **United States of America**

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:

US/ETL/ExTR16.0024/03

Quality Assessment Report:

GB/ITS/QAR10.0012/11

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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-9010, a threaded electrical connector for connection to a HOT END cable assembly that has the glass lens and photodiode only is mounted on combustion chamber, while the circuit is present on other side in relative cool ambient, hence called as COOL END. 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.

For RS-FS-9010-03-XXX, both separate parts HOT and COOL ends are brazed and welded at connections to form one complete assembly. Electrically both COLD and HOT end used in RS-FS-9010-03 are identical to RS-FS-9010 COLD and HOT End.

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.

Model Similarity:

RS-FS-9010-03-XXX

XXX can be 25X, XXX represents the different gains.

See Annex for Manufacturer's Documents and Ex coding details

SPECIFIC CONDITIONS OF USE: YES as shown below:

Equipment is marked with the following ambient temperature ranges:

COOL END Marking for RS-FS-9010-03-XXX:

-51°C to 150°C Temperature Code: T3

HOT END Marking for RS-FS-9010-03-XXX:

-51°C to 325°C Temperature Code: T1

-51°C to 285°C Temperature Code: T2

-51°C to 190°C Temperature Code: T3

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Added Trademark
- Updated Ingress Peotection from IP20 to IP54
- Updated Certificate number from 'IECEx ETL 16.0007' to 'IECEx ETL 16.0007X' to add Special Condition of use "X"
- Removed model RS-FS-9010-01, RS-FS-9010-02
- Removed below Rated ambient temperature range:
  COLD END Marking for RS-FS-9010-02:
  -51°C to 150°C Temperature Code: T3
  HOT END Marking for RS-FS-9010-01:
  -51°C to 325°C Temperature Code: T1
  -51°C to 285°C Temperature Code: T2
  -51°C to 190°C Temperature Code: T3
- Added Special conditions of use
- Updated drawing FS-9010-24-CB from "Rev B Date 05-24-2022" to " Rev C Date 11/08/2023"
- Updated drawing FS-9010-60B-CERT from "Rev A Date 05/16/2022" to "Rev B Date 07/12/2023"
- Updated drawing FS-9010QSM-CERT from "Rev – Date 05/24/2022" to "Rev A Date July 2023"
- Updated drawing FS-9010QSM-CERT from "Title: QUICK START GUIDE, Rev – Date 05/24/2022" to "Title: QUICK START MANUAL, Rev A Date July 2023"
- Due to removal of models model RS-FS-9010-01, RS-FS-9010-02, below drawings are removed:

  - Title: FLAME TRACKER DRY COLD END, Drawing#: FS-9009-02-CERT, Rev leve: A, Rev Date: 12-12-2014
  - Title: FLAME TRACKER DRY HOT END ASM, Drawing#: FS-9009-01-CERT, Rev Level: B, Rev Date: 02/02/2016
  - Title: CERTIFICATION MARKING HOT END, Drawing#: FS-9010-55-CERT, Rev Level: NC, Rev Date: 04-03-2015
  - Title: PCB FLAME SENSOR DIV 1, Drawing#: FS-9004-20B-CERT, Rev Level: A, Rev Date: 03/02/2022

- Updated Test item description section from "Flame Tracker Lite" to "Flame Tracker Dry 325 (FTD 325)"
- Updated Model/Type reference from "RS-FS-9010-03" to "RS-FS-9010-03-XXX" and replace "RS-FS-9010-03" to "RS-FS-9010-03-XXX" in entire report
- In General product information section:

  - Updated text from "Flame Tracker Lite" to "Flame Tracker Dry 325 (FTD 325)"
  - Added Model Similarity
  - Removed "Electrically both COLD and HOT end used in RS-FS-9010-03 are identical to RS-FS-9010 COLD and HOT End."
  - Updated text 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."
  - Text from "photo diode" to "photodiode"

- Updated text from "Cold End" to "Cool End" in entire report.

Annex:

105603871DAL-003-SFT-IECEx-OP-19f - Annex for IECEx Certificate of Conformity.pdf

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Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
*CERTIFICATION MARKING - CB	FS-9010-24-CB	C	11/18/2023
*QUICK START MANUAL	FS-9010QSM-CERT	A	July 2023
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
FLAME SENSOR INTERCONNECTING CABLE (2 Sheets)	RS-E2-0285-CERT	NC	04-07-2014
PCB FTD 325 DIV1	FS-9009-29B-CERT	A	05/16/2022
SCH, SMT FLAME SENSOR	FS-9010-60S-CERT	A	02/17/2022
*CERT, FLAME SENSOR PCB	FS-9010-60B-CERT	B	07/12/2023
FLAME TRACKER DRY HOT/COOL ASSEMBLY	FS-9009-03-CERT	A	06-29-2021

Note: An * is included before the title of documents that are new or revised.

Ambient Temperature Range:

COOL END Marking for RS-FS-9010-03-XXX:
-51°C to 150°C Temperature Code: T3

HOT END Marking for RS-FS-9010-03-XXX:
-51°C to 325°C Temperature Code: T1
-51°C to 285°C Temperature Code: T2
-51°C to 190°C Temperature Code: T3