Certificate / Certificat
Zertifikat / 合格証

BHR 1911139 C001

exida hereby confirms that the:

Flame Tracker Dry (FTD 325) – RS-FS-9009-03 and RS-FS-9010-03

Reuter-Stokes, LLC
Twinsburg, OH - USA

Has been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-2

Flame Detector Device Requirements:

EN 298:2012, EN 50156-1:2015

and meets requirements providing a level of integrity to:

Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type A, Route 1_H Device

PFD_{avg} and Architecture Constraints must be verified for each application

Safety Function:

The Flame Tracker will detect the presence of a flame and provide an analog output within the stated safety accuracy.

Application Restrictions:

The unit must be properly designed into a Safety Instrumented Function per the Safety Manual requirements.

The manufacturer may use the mark:

Revision 2.1 March 15, 2024
Surveillance Audit Due
March 1, 2026

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17065
PRODUCT CERTIFICATION BODY
#1004

exida Certification

Evaluating Assessor

Certifying Assessor

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Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type A, Route 1_H Device

PFD_{avg} and Architecture Constraints must be verified for each application

Flame Tracker Dry (FTD 325) –

RS-FS-9009-03 and RS-FS-9010-03

Systematic Capability:

The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 3. These are intended to achieve sufficient integrity against systematic errors of design by the manufacturer.

A Safety Instrumented Function (SIF) designed with this product must not be used at a SIL level higher than stated.

Random Capability:

The SIL limit imposed by the Architectural Constraints must be met for each element.

IEC 61508 Failure Rates in FIT*

Failure Category	Failure Rate (FIT) Profile 3	
Fail Safe Undetected	2,988	
Fail Dangerous Detected	168	
Fail Detected (detected by internal diagnostics)		0
Fail High (detected by logic solver)		20
Fail Low (detected by logic solver)		148
Fail Dangerous Undetected	1,877	

* FIT = 1 failure / 10^9 hours

Application Standards: EN 298:2012, EN 50156-1:2015

The Flame Tracker was evaluated as the flame detector device portion of a system per the relevant requirement of the listed application standards. All requirements of an Application Standard and the Authority Having Jurisdiction must be met for any particular application. Any additional regulatory requirements that exist must be followed.

SIL Verification:

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFD_{avg} considering redundant architectures, proof test interval, proof test effectiveness, any automatic diagnostics, average repair time and the specific failure rates of all products included in the SIF. Each element must be checked to assure compliance with minimum hardware fault tolerance (HFT) requirements.

The following documents are a mandatory part of certification:

Assessment Report: BHR 1910018 R002 V4R1 (or later)

Safety Manual: FS-9009SM Rev. D (or later)

80 N Main St
Sellersville, PA 18960