



# Certificate / Certificat Zertifikat / 合格証

RAD 1406037 C001

*exida* hereby confirms that the:

## **FPGA-Based Safety Controller (FSC) RadICS**

### **RPC Radiy**

29, Akademika Tamma  
Kropyvnytskyi, Ukraine

Has been assessed per the relevant requirements of:

**IEC 61508 : 2010 Parts 1-7**

and meets requirements providing a level of integrity to:

**Systematic Capability: SC 3 (SIL 3 Capable)**

**Random Capability: Type B Element**

**SIL 3 @ HFT=0; Route 1<sub>H</sub>**

**PFDAVG, PFH and Architecture Constraints  
must be verified for each application**

#### **Safety Function:**

The FSC will read input signals, perform user-defined application layer logic and write results to the output signals within the stated response time.

#### **Application Restrictions:**

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

The manufacturer  
may use the mark:



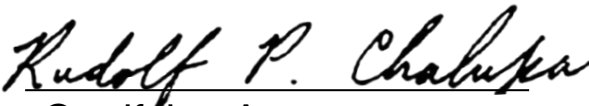
Revision 4.1 November 16, 2020  
Surveillance Audit Due  
December 1, 2023



ISO/IEC 17065  
PRODUCT CERTIFICATION BODY  
#1004



  
Evaluating Assessor

  
Certifying Assessor

RAD 1406037 C001

**Systematic Capability: SC 3 (SIL 3 Capable)**

**Random Capability: Type B Element**

**SIL 3 @ HFT=0; Route 1<sub>H</sub>**

**PFD<sub>AVG</sub>, PFH and Architecture Constraints  
must be verified for each application**

FPGA-Based Safety  
Controller (FSC)  
RadICS

**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.

For failure rates, see the Safety Manual.

**SIL Verification:**

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFH/PFD<sub>avg</sub> 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.



80 N Main St  
Sellersville, PA 18960

The following documents are a mandatory part of certification:

**Assessment Report:** RAD 14-06-037 R002 V4R1 61508 Assessment - FSC

**Safety Manual:** Radiy FSC Product Safety Manual