Certificate / Certificat
Zertifikat / 合格証

PREI 070902 P0002 C007

exida hereby confirms that the:

9107 HART Transparent Driver
Product Version 9107-002

PR electronics A/S
Rønde - Denmark

Has been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-2

and meets requirements providing a level of integrity to:

Systematic Capability: SC 2 (SIL 3 Capable)

•Random Capability: Type A Route 1_H Device

**PFH/PFD$_{avg}$ and Architecture Constraints
must be verified for each application**

Safety Function:
The 9107 HART Transparent Driver isolates 4-20 mA process signals and realizes a ground loop elimination.
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Application Restrictions:
The unit must be properly designed into a Safety Instrumented Function per the Safety Manual requirements.

_____
Evaluating Assessor

_____
Certifying Assessor

Certificate / Certificat / Zertifikat / 合格証

9107 HART Transparent Driver
Product Version 9107-002
Systematic Capability: SC 2 (SIL 2 Capable)

•Random Capability: Type A Route 1$_H$ Device

PFH/PFD$_{avg}$ and Architecture Constraints must be verified for each application

9107 HART Transparent Driver

Systematic Capability :

The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 2. 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.

9107 Configuration	λ_S	λ_{DD}	λ_{DU}
Single active input and active output	0	127	48

IEC 61508 Failure Rates in FIT*

* FIT = 1 failure / 10^9 hours

SIL Verification:

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFH/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: PR 23/12-098 R035 V1R0

Safety Manual: 9107 Safety Manual V1R2

exida®

80 N Main St
Sellersville, PA 18960

T-061, V5R3