



# Certificate / Certificat Zertifikat / 合格証

Weidmüller 070902 P0002 C007

*exida* hereby confirms that:

**HART transparent driver  
ACT20X-(2)SAI-(2)HAO-S/P**  
Device version 2

The manufacturer  
may use the mark:



Revision 2.4 February 10, 2021  
Surveillance Audit Due  
February 28, 2023

**Weidmüller Interface GmbH CO KG  
Detmold, Germany**

Has been assessed per the relevant requirements of:

**IEC 61508 : 2000 Parts 1 - 7**

and meets requirements providing a level of integrity to:

**Systematic Capability: SC 2 (SIL 2 Capable)**

**Random Capability: Type A Device**

**PFD<sub>Avg</sub> and Architecture Constraints  
must be verified for each application**

**Safety related function:**

The HART transparent driver isolates 4..20mA process signals and realizes a ground loop elimination.

**Application restrictions:**

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





**Evaluating Assessor**



**Certifying Assessor**

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## Systematic Capability: SC 2 (SIL 2 Capable)

### Random Capability: Type A Device

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

#### 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 these products must not be used at a SIL level higher than the statement without "prior use" justification by end user or diverse technology redundancy in the design.

#### Random Capability:

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

#### Summary for the HART transparent driver ACT20X-(2)SAI-(2)HAO-S/P:

Type A device  
IEC 61508:2000 Failure rates

	$\lambda_{Safe}$	$\lambda_{DD}$	$\lambda_{DU}$	$\lambda_{No\ effect}$
Single active input and active output	0	127	48	164

All failure rates are given in FIT=10<sup>-9</sup>/h

#### 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 subsystem must be checked to assure compliance with minimum hardware fault tolerance (HFT) requirements.

#### The following documents are mandatory parts of this certificate:

0709-02-C R017 V2 R2 Assessment Report

Safety manual ACT20X-(2)SAI-(2)HAO-S V0.1



80 N Main St  
Sellersville, PA 18960

T-061, V3R1