



# 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](http://www.iecex.com)

Certificate No.:	<b>IECEx DEK 11.0059X</b>	Page 1 of 4	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 3	<a href="#">Issue 2 (2019-03-26)</a>
Date of Issue:	2022-10-31		<a href="#">Issue 1 (2014-04-03)</a>
Applicant:	<b>Weidmüller Interface GmbH</b> Klingenbergstrasse 16 32758 Detmold <b>Germany</b>		<a href="#">Issue 0 (2011-08-17)</a>
Equipment:	<b>HART-Transparent Driver, Type ACT20X-SAI-HAO-S, Type ACT20X-SAI-HAO-P and Type ACT20X-2SAI-2HAO-S, Type ACT20X-2SAI-2HAO-P</b>		
Optional accessory:			
Type of Protection:	<b>Ex ia, Ex ec, Ex n</b>		
Marking:	Ex ec nC IIC T4 Gc [Ex ia Ga] IIC/IIB/IIA [Ex ia Da] IIIC [Ex ia Ma] I		

Approved for issue on behalf of the IECEx  
Certification Body:

**R. Schuller**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

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**Netherlands**





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Manufacturer: **Weidmüller Interface GmbH**  
Klingenbergstrasse 16  
32758 Detmold  
**Germany**

Manufacturing locations: **Weidmüller Interface GmbH**  
Klingenbergstrasse 16  
32758 Detmold  
**Germany**

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

**IEC 60079-15:2017** Explosive atmospheres - Part 15: Equipment protection by type of protection "n"  
Edition:5.0

**IEC 60079-7:2017** Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

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:

**NL/DEK/ExTR11.0083/03**

Quality Assessment Report:

**NL/DEK/QAR12.0052/08**



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

HART-Transparent Drivers, Type ACT20X-SAI-HAO-S, Type ACT20X-SAI-HAO-P and Type ACT20X-2SAI-2HAO-S, ACT20X-2SAI-2HAO-P for rail mounting, are 24 V powered isolating barriers that serve as current output isolators for 4 - 20 mA signals with HART communication.

The HART-Transparent Driver,  
Type ACT20X-SAI-HAO-S and Type ACT20X-SAI-HAO-P are the one channel versions;  
Type ACT20X-2SAI-2HAO-S and Type ACT20X-2SAI-2HAO-S are the two channel versions.

The driver provides a potential free contact for status indication.

Ambient temperature range -20 °C to +60 °C.

For electrical data, refer to the Annex to this certificate.

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

The HART-Transparent Driver shall be installed in a controlled environment with suitable reduced pollution, limited to pollution degree 2 or better.

The non-intrinsically safe circuits may only be connected to an overvoltage category I or II power source, as defined in IEC 60664-1.

If the HART-Transparent Driver is installed in an explosive atmosphere where the use of equipment protection level Gc is required, the HART-Transparent Driver shall be installed in a suitable enclosure, providing a degree of protection of at least IP54 according to IEC 60079-0.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

assessed per IEC 60079-0 Ed. 7.0, IEC 60079-7 Ed. 5.1, IEC 60079-15 Ed. 5.0

**Annex:**

[226311500-7-ExTR11.0083.03-Annex1.pdf](#)

## **Description**

HART-Transparent Drivers, Type ACT20X-SAI-HAO-S, ACT20X-SAI-HAO-P, ACT20X-2SAI-2HAO-S, and ACT20X-2SAI-2HAO-P for rail mounting, are 24 V powered isolating barriers that serve as current output isolators for 4 - 20 mA signals with HART communication.

The HART-Transparent Driver:

ACT20X-SAI-HAO-S and ACT20X-SAI-HAO-P are one channel versions.

ACT20X-2SAI-2HAO-S and ACT20X-2SAI-2HAO-P are two channel versions.

The driver provides a potential free contact for status indication.

Ambient temperature range -20 °C to +60 °C.

## **Electrical data**

Supply (terminals 51, 52):  $U = 19.2 \dots 31.2 \text{ Vdc}$ .

Status-Relay output (terminals 53, 54):

$U \leq 32 \text{ Vac}$  or  $32 \text{ Vdc}$ ,  $I \leq 0.5 \text{ Aac}$  or  $I \leq 1 \text{ Adc}$  respectively.

If the Driver is installed outside the hazardous area, the following data for the relay contacts apply:

$U \leq 110 \text{ Vdc}$  or  $125 \text{ Vac}$ ,  $I \leq 0.3 \text{ Adc}$  or  $I \leq 0.5 \text{ Aac}$  respectively.

Inputs (terminals 41, 42 resp. 43, 44):  $I = 4 \dots 20 \text{ mA}$ .

For all circuits above:  $U_m = 253 \text{ Vac}$  (max. frequency 400 Hz).

Loop supply outputs (terminals 11, 12 resp. terminals 21, 22):

in type of protection intrinsic safety Ex ia IIC/IIB/IIA/IIIC/I, with following maximum values:

$U_o = 28 \text{ V}$ ;  $I_o = 93 \text{ mA}$ ;  $P_o = 0.65 \text{ W}$ ;

$C_o = 0.08 \mu\text{F}$  (IIC) or  $0.65 \mu\text{F}$  (IIB) or  $2.15 \mu\text{F}$  (IIA) ) or  $3.76 \mu\text{F}$  (I);

$L_o = 4 \text{ mH}$  (IIC) or  $16 \text{ mH}$  (IIB) or  $32 \text{ mH}$  (IIA) or  $46 \text{ mH}$  (I).

For group IIIC, the parameters of group IIB apply.

Both channels (terminals 11...14 and terminals 21...24) are infallibly galvanically isolated from each other and from the non-intrinsically safe supply and output circuits.