

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Signalconditioning units ACT20X

Issued to

Weidmüller Interface GmbH & Co. KG
Detmold, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Temperature D

Humidity B

Vibration A

EMC B

Enclosure required protection according to relevant rules shall be provided upon installation on board

Issued at **Hamburg** on **2017-07-04**

This Certificate is valid until **2021-06-30**.

DNV GL local station: **Magdeburg**

for **DNV GL**

Approval Engineer: **Klaus-Peter Schröder**

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Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Signal conditioning units and power control unit as listed below:

Order No.	Model	Description	Function
8965340000	ACT20X-HDI-SDO-RNO-S	NAMUR isolator – relay NO	NAMUR in (from Ex) to relay out
8965350000	ACT20X-HDI-SDO-RNC-S	NAMUR isolator – relay NC	NAMUR in (from Ex) to relay out
8965360000	ACT20X-HDI-SDO-S	NAMUR isolator	NAMUR in (from Ex) to digital out
8965370000	ACT20X-2HDI-2SDO-RNO-S	2 Ch. NAMUR isolator – relay NO	2x NAMUR in (from Ex) to 2x relays out
8965380000	ACT20X-2HDI-2SDO-RNC-S	2 Ch. NAMUR isolator – relay NC	2x NAMUR in (from Ex) to 2x relays out
8965390000	ACT20X-2HDI-2SDO-S	2 Ch. NAMUR isolator	2x NAMUR in (from Ex) to 2x digital out
8965400000	ACT20X-SDI-HDO-L-S	Solenoid/alarm driver L	digital in to safe digital out (to Ex IIC)
8965410000	ACT20X-SDI-HDO-H-S	Solenoid/alarm driver H	digital in to safe digital out (to Ex IIB)
8965420000	ACT20X-2SDI-2HDO-S	2 Ch. Solenoid/alarm driver	2x digital in to 2x safe digital out (to Ex)
8965430000	ACT20X-HAI-SAO-S	HART-transparent repeater	mA in (from Ex) to mA out with HART transparency
8965440000	ACT20X-2HAI-2SAO-S	2 Ch. HART-transparent repeater	2x mA in (from Ex) to 2x mA out with HART transparency
8965450000	ACT20X-SAI-HAO-S	HART-transparent driver	mA in to mA out (to Ex) with HART transparency
8965460000	ACT20X-2SAI-2HAO-S	2 Ch. HART-transparent driver	2x mA in to 2x mA out (to Ex) with HART transparency
8965470000	ACT20X-HTI-SAO-S	Temperature/mA converter	temperature in (from Ex) to mA out
8965480000	ACT20X-2HTI-2SAO-S	2 Ch. temperature/mA Converter	2x temperature in (from Ex) to 2x mA out
8965490000	ACT20X-HUI-SAO-S	Universal converter	universal analog in (from Ex) to analog (V/mA) + trip relay out

Units tested for power supply voltage 24 Vdc +30% and 24 Vdc -20%.

Application/Limitation

The Type Approval covers hardware listed under Product description.

When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

To satisfy the class requirements for power supply variations, the units are to be installed with a power supply of approved type.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Type Approval documentation

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

Marking of product

The products to be marked with:

- manufacturer name Weidmüller Interface GmbH & Co. KG
- device name as listed under Product description
- order number

Job Id: **262.1-013320-3**
Certificate No: **TAA000019C**

- unique serial number.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
 - Inspection of factory samples, selected at random from the production line (where practicable)
 - Review of production and inspection routines, including test records from product sample tests and control routines
 - Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
 - Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
 - Ensuring traceability between manufacturer's product type marking and the type approval certificate
- Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE