

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Universal Converter**

with type designation(s)  
**ACT20P-PRO DCDC II-S/P, ACT20P-PRO DCDC II-24-S/P**

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:

<b>Temperature</b>	<b>B</b>
<b>Humidity</b>	<b>B</b>
<b>Vibration</b>	<b>B</b>
<b>EMC</b>	<b>B</b>
<b>Enclosure</b>	<b>A</b>

Issued at **Hamburg** on **2021-06-22**

for **DNV GL**

This Certificate is valid until **2025-08-02**.

DNV GL local station: **Magdeburg**

Approval Engineer: **Dariusz Lesniewski**

**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.



Job Id: **262.1-027459-5**  
Certificate No: **TAA00001JH**  
Revision No: **4**

## Product description

The universally configurable DC isolating amplifier ACT20P-PRO DCDC II-(**24**)-S/P isolates and converts analogue signals. An analogue input signal (current or voltage) is linearly converted into an analogue output signal (current or voltage) and galvanically isolated.

The power supply is galvanically isolated from input and output (3-way isolation).

### Power supply:

ACT20P-PRO DCDC II-S/P:

24 ... 230V DC+/-20%

24 ... 230V AC+/-10% @ 48 ... 62Hz

ACT20P-PRO DCDC II-24-S/P:

24V DC +30%/-20%

### Input signal range:

Voltage: +/-40mV ... +/-300V

Current: +/-0.2mA ... +/-100mA

### Output signal range:

Voltage: 0 ... +/-10V

Current: 0 ... +/-20mA / 4 ... 20mA

### General data:

Degree of protection: IP20

Mounting: on a TS 35 DIN rail

Housing material: PA66 GF30

Connection type: Srew (indicated by -S)

Connection type: Push-in (indicated by -P)

Front LED for indication operation status

## Approval conditions

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.

## Type Approval documentation

Test report: Preelectronics ACT20P-PRO DCDC Marine (V2R0 / 2015-06-12)

Test report: Delta DANAK-19/15072 (2015-03-20)

Test report: Weidmüller LAB22976E (2020-08-25)

Test report: FORCE Technology no. 121-25600-1 (2021-05-12)

Operating instruction: R.T.Nr. 1536830000/00/11.14

Operating instructions: 2816710000/00/13-21 and 2816720000/00/13-21

Drawings enclosures, Part lists 5822-1SMD, 5822-2SMD, 5822L (2015-04-29)

Drawings printing layout: 74372 and 74373 (26.03.2021)

Schematic-PCB 5822-1-07 (2015-04-23)

Change release document: System 5822

Project 5822-1-10 (2021-04-08) - referenced documents

Certificate IECEx ULD 20.0020X, Certificate DEMKO 15 ATEX 1397X Rev. 5

Technical Specifications ACT20P-PRO DCDC II-S 1536830000/02/06-2017

Technical Specifications ACT20P-PRO DCDC II-P 2508060000/02/06-2017

Type approval assessment report issued at Hamburg on 2020-06-10

## Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, December 2019.

## Marking of product

The products to be marked with:

- manufacturer name
- model name

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- serial number
- power supply ratings

### **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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE