

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Peripheral Equipment**

with type designation(s)
ACT 20 M Series Isolators / Converters / Repeaters

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	B
EMC	B
Enclosure	Required protection according to relevant rules shall be provided upon installation on board

Issued at **Hamburg** on **2019-01-14**

for **DNV GL**

This Certificate is valid until **2024-01-13**.

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.



Product description

Isolators, converters and repeaters as listed below:

Type	Name
ACT20M-CI-CO-S	Isolated repeater
ACT20M-AI-AO-S	Isolated converter
ACT20M-AI-AO-E-S	Isolated converter
ACT20M-CI-2CO-S	Isolated repeater/splitter
ACT20M-AI-2AO-S	Isolated converter/splitter
ACT20M-UI-AO-S	Isolated universal converter
ACT20-FEED-IN-BASIC-S	Power connector unit
ACT20M-CI-CO-ILP-S	1 channel loop-powered isolator
ACT20M-2CI-2CO-ILP-S	2 channel loop-powered isolator
ACT20M-CI-CO-OLP-S	1 channel transmitter isolator
ACT20M-2CI-2CO-OLP-S	2 channel transmitter isolator
ACT20M-BAI-AO-S	Isolated converter
ACT20M-BAI-2AO-S	Isolated converter/splitter
ACT20M-TCI-AO-E-S	Non-isolated TC converter
ACT20M-RTI-AO-E-S	Non-isolated Pt100 converter
ACT20M-TCI-AO-S	Isolated TC converter
ACT20M-RTI-AO-S	Isolated Pt100 converter
ACT20M-RTCI-CO-OLP-S	2-wire isolated temperature converter
ACT20M-RTI-CO-EOLP-S	Non-isolated 2-wire Pt100 converter

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.

Application/Limitation

Ex installations 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

Reference is made to DNV GL Project No. 262.1-010635

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product

The products to be marked with model name, manufacturer name and 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



Job Id: **262.1-029955-1**
Certificate No: **TAA000023T**

- 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