



Certificate No:
TAA000032K

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Level Control System

with type designation(s)
SMLC2 / EL030-M & DLT2 / EC8-M

Issued to

IGEMA GmbH
Münster, Nordrhein-Westfalen, Germany

is found to comply with
DNV rules for classification – Ships

Application :

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

Temperature A [SMLC2, EL030-M], [DLT2, EC8-M]

Humidity B

Vibration A

EMC A

Enclosure Required protection according to DNV Rules shall be provided upon installation on board

Issued at **Hamburg** on **2022-01-10**

This Certificate is valid until **2027-01-09**.

for **DNV**

DNV local station: **Essen**

Approval Engineer: **Didier Girardin**

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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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2021-03

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Product description

[**SMC2 / EL030-M**] self-monitoring controller SMC2 with level probe EL030-M LLW-limiter with safety function

self-monitoring low level water limiter
Supply: 230V - 15% + 10% / 50/60Hz

EL030 Level probe:

Name	PS	TS	connection	Electrode length
EL030-M	32 bar	239°C	G 1/2"	125mm – 1700mm

[**DLT2 / EC8-M**] self-monitoring controller DLT2 with level probe EC8-M for continuous level measurement 4 to 20 mA with safety function

EC8 Level probe:

Name	PS	TS	connection	Electrode length	Measuring range min
EC8-M	32 bar	239°C	G 1/2"	125mm – 2130 mm mm	50 mm

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

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

Type Approval documentation

See Annex

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- 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



Job Id: 262.1-035666-1
Certificate No: TAA000032K

ANNEX
Type Approval documentation
Hidden