DNV·GL

Certificate No:
TAA00001T7

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Flow Sensor

with type designation(s)
SI0521, SI0557

Issued to
IFM Electronic GmbH
Essen, 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	**A**
Enclosure	**C**

Issued at **Hamburg** on **2018-04-10**
This Certificate is valid until **2023-04-09**.
DNV GL local station: **Augsburg**

Approval Engineer: **Dariusz Lesniewski**

for **DNV GL**

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.

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Job Id: **262.1-027764-1**
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Product description
Application: liquids
Medium temperature: - 15°C...70°C
Power supply: 24V DC (18..32 VDC)
Output: 2x switching outputs (PNP)
SI0521: 2x no / nc (programmable)
SI0557: 1x no, 1x nc (programmable)
Measuring and setting range: 3...300 cm/s
Switch point accuracy: +-10cm/s
HMI: display 10 LED (three-colour), push-buttons
Process connection: internal thread M18x1.5 for adapter
Probe length: 45mm
Electrical connection: M12 connector
Degree of protection: IP 56, IP 67

Place of manufacture
ifm electronic gmbh
Waldesch 9
88069 Tettnang, GERMANY

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

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

Marking of product
The products to be marked with:
- manufacturer name
- model name
- production code
- 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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE