DNV·GL

Certificate No: TAP00001UJ

# **TYPE APPROVAL CERTIFICATE**

This is to certify: That the Magnetic Liquid Level Indicator

with type designation(s) Seetru Seemag (G35)

# Issued to SEETRU LTD. **BRISTOL**, United Kingdom

is found to comply with DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

### **Application :**

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

#### Design: See Certificate

Issued at Høvik on 2019-07-01

This Certificate is valid until **2023-12-31**. DNV GL local station: Manchester

Approval Engineer: Mehdi Rowshan

for DNV GL

Zeinab Sharifi 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: 262.1-002711-10 Certificate No: TAP00001UJ

#### **Product description**

Direct reading magnetic gauge with liquid level indicated by a high visibility ring might be provided with Remote reading transmitter, High/low level alarm and/or computer interface, Trace heating, Level switching.

#### Material:

Item	Material	Item	Material
Flange:	SS316	Drain Plug:	SS316
Level Indicator:	Nylon	Collar	SS316
Float:	SS316	By-Pass Tube	SS316
Follower:	Nylon	Guard Tube:	Polycarbonate

#### Application/Limitation

Pressure:	18 barg
Maximum liquid temperature:	180°C

The gauge can be used on all ships in engine rooms and machinery space environment on tanks containing fluids with flashpoint above 60°C.

Pressure transmitter fitted to gauge is to carry a DNVGL type approval, the transmitter is not to be used on ships with class notation "Passenger Ships".

Each level gauge fitted to a tank containing flammable liquids is to be equipped with self closing valves at the connection points to the tank and shall be protected against mechanical damage.

In passenger ships, no oil level indicating devices requiring penetrations below the top of the tank are permitted.

Stainless steel grade 316 is not seawater resistant materials and products covered by this certificate shall not be used in seawater applications.

Product certificate is not required for the DNVGL classed vessels.

#### **Production Test:**

Hydraulic/Leakage test to 1.5 times the maximum allowable pressure to be performed accordingly.

#### Type Approval documentation

The approval is based on the following documentation: Drawings:

- G353218 1/5 issue 5 "Magnetic Liquid Level Indicator Gauge" Marine Version, dated 05.12.2012.
- G353218 2/5 issue 4 "Magnetic Liquid Level Indicator Gauge with remote reading", dated 05.12.12.
- G353218 3/5 issue 6 "Magnetic Liquid Level Indicator Gauge with trace heating", dated 08.11.2018.
- G353218 4/5 issue 4 "Magnetic Liquid Level Indicator Gauge with level switching", dated 05.12.2012.
- G353218 5/5 issue 1 " Magnetic Liquid Level Indicator Alternative collars", dated 05.12.12 Manufacturer's leaflet "Liquid Level Gauges Magnetic Liquid Level Indicator
- Seemag ® Model Robust construction with all-round clear viewing"

# Marking of product

For traceability to this type approval the product is to be marked with:

- Manufacturer's name or trade mark
- Type designation

## Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/-90 days) and after 3.5 years (+/-90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.