DNV·GL

Certificate No:
TAP000023J

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Hydrostatic and Pneumatic Level Gauge Indicator

with type designation(s)
PEL-C

Issued to
Pleiger Maschinenbau GmbH & Co. KG
Witten, Nordrhein-Westfalen, Germany

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.
Max. working press.: 6bar

Issued at **Hamburg** on **2020-05-26**
This Certificate is valid until **2025-05-25**.
DNV GL local station: **Essen**

for **DNV GL**

Approval Engineer: **Hagen Markus**

Olaf Drews
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

The PEL-C pneumatic tank level indicating system consists of the following main components, refer to drawing HyH1769-202-2

Components	**Drawing, Reference**
Control cabinet	
- Supply air treatment - Pneumatic valve blocks type PEL-C1 or PEL-C2	Drawing HyH1769-02-2 Air supply pressure max.: 6bar Components connected by metallic piping
Electric level gauges	TAE00001TW
P/E - Transmitter Type PE1	TAA00001N, TA00001BY
Single components	
Pleiger Process Control System PPC (optional)	TAA00001FJ May also be integrated into control cabinet
Membrane safety valves Type PEL-C-S	PK-672, PK697 (Tank level measuring)
	PK-699 (Draft measuring)
Measuring unit PEL D2-V	PK-761 (Tank level sensor), TAA00001NN
Air purge pipes, draft measuring pipes	PK-697, PK-699
Measuring pipe between control cabinet – Membrane Safety Valve(s) PEL-C-S	Metallic pipes, Bundle tubes DNV GL Pt.4, Ch.6 Piping systems

Application/Limitation

The tank level indicating system PEL-C is approved for tank level indicating of tanks. PLEIGER - Installation specification PEL-C - to be observed.

LIMITATIONS

The tank level indicating system PEL-C is not approved:
- on passenger ships, in case that the air purge pipe penetrates fuel and oil tanks below the tank top.
- for cargo tanks on chemical and gas tankers as well as for cargo tanks carrying oils having flash points <60°C on oil tankers.
- for indication of high- and low-level alarms required by the Rules

Installation instruction

For installation and calibration, the following Pleiger documents are to be observed:
- PK-699 "Installation Instruction for Draft Measurement Type PEL-C-S"
- PK-888 "Principle Function Filling Level Measuring Type PEL-C-S"

Type Approval documentation

Tests carried out

- Performance test and pressure test

Marking of product

Component	Example
Control cabinet name plate	
Manufacturer name	Pleiger
Serial number (Project number)	1769-02
Membrane safety valves PEL-C-S Tank Level Measuring Unit, Type PEL-D2-V	
Label with product and order details	PEL-C-S
Part number on cover	
Pleiger Process Control System PPC name plate	
Manufacturer name	Pleiger Elektronik GmbH&Co.KG
Project number	Hull CX 0814
Drawing number	HyH 3456-05
Commission number	PE 1830085 000003
Electrical operation data	e.g. voltage, power, frequency, rated current
Year of construction	06 CW /2020

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment to verify that the conditions for the Type Approval are complied with. Refer to the Class Programme DNVGL-CP-0338, Sec.4.

To check the validity of this certificate, please look it up in https://approvalfinder.dnvgl.com

End of certificate