



# OIML Certificate

**OIML Member State**  
The Netherlands

Number R85/2008-A-NL1-24.01 revision 0  
Project number 3818745  
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Issuing authority

NMi Certin B.V.  
Person responsible: M.Ph.D. Schmidt

Applicant and  
Manufacturer

Flowworld (Shandong) Technologies LTD.  
No. 2222, South Section of YuQing Road  
Pingan Street Office, Changqing District  
Jinan Shandong  
P.R. China

Identification of the  
certified type

An **automatic level gauge** (servo principle) with temperature and density  
displacer sensor  
Type: LTD-50

Characteristics

See following page(s)

This OIML Certificate is issued under scheme A.

This Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML Type Evaluation Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

**R 85-1&2: 2008** "Automatic level gauges for measuring the level  
of liquid in stationary storage tanks"

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation identified above.  
This Certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Type Evaluation Report(s) is not permitted, although either may be reproduced in full.

Issuing Authority

**NMi Certin B.V., OIML Issuing Authority NL1**  
18 July 2024

Certification Board

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This document is issued under the provision that no liability is accepted and that the applicant shall indemnify third-party liability.

The notification of NMi Certin B.V. as Issuing Authority can be verified at  
[www.oiml.org](http://www.oiml.org)

This document is digitally signed and sealed. The digital signature can be verified in the blue ribbon at the top of the electronic version of this certificate.



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The conformity was established by the results of tests and examinations provided in the associated report(s):

- No. NMI-2579596-01 dated 14 June 2022 that includes 29 pages;
- No. NMI-2579596-02 dated 14 June 2022 that includes 23 pages.

## Characteristics of the measuring instrument

In Table 1 the general characteristics of the measuring instrument are presented.  
The construction of the measuring instrument is recorded in the Documentation folder R85-2008-A-NL1-24.01-1.

The automatic level gauge is intended to measure by servo principle automatically and display the level of the liquid contained in a tank. Herewith the following displacer types can be used:

- SF displacer with no additional sensors;
- TF displacer including temperature sensor;
- MF displacer including temperature sensor and density sensor.

**Table 1 General characteristics**

Maximum measuring range level		30 metres (applicable for all displacer types)
Temperature displacer measuring range		-5 – +35 °C (only applicable for TF and MF displacers)*
Density displacer measuring range		600 – 1020 kg/m <sup>3</sup> (only applicable for MF displacers)* at maximum viscosity of 5 mPa·s
Ambient temperature range		-40 – +70 °C; condensing humidity
Power supply voltage		200 – 240 V AC; 50/60 Hz 24 – 48 V DC
Software identification	Level gauge	Version number: V10.9 Checksum: 136699
	TF or MF displacer	Version number: V5.2 Checksum: 63162
Data communication	Inputs	- Manual temperature input - 3 x HART for temperature transducers
	Outputs	- Display - 4-20 mA analog output (not for legal metrology) - Modbus RS485 serial communication

\* The mentioned measuring ranges can be used for legal metrology. Outside these ranges, the measurement performance is not approved.



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## Certificate history:

Revision	Date	Description of the modification
0	18 July 2024	Initial Issue