OIML Certificate

OIML Member State
The Netherlands

Number R85/2008-A-NL1-22.02 revision 2
Project number 3999104

Issuing authority	NMi Certin B.V. Person responsible: M.Ph.D. Schmidt
Manufacturer	Joyo M&C Technology Co., Ltd. Room 008, 1F (2-3), Building 4, Ganluyuan, Chaoyang District Beijing China
Identification of the certified type	An **automatic level gauge** (servo principle) with temperature and density displacer sensor Manufacturer's mark: Joyo M&C Technology Co., Ltd. Type: BJLM-80H
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
14 August 2025

Certification Board

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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 [1] dated 14 June 2022 that includes 29 pages;
- No. NMi-2579596-02 dated 14 June 2022 that includes 23 pages;
- No. NMi-3866763-01 dated 25 May 2025 that includes 29 pages;
- No. NMi-3866764-01 dated 27 June 2025 that includes 11 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 no. 2579596-2.

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		50 metres
Ambient temperature range		-40 – +70 °C; condensing humidity
Temperature displacer measuring range		-5 – +35 °C (only applicable for TF and MF displacers)
Density displacer measuring range		600 – 1020 kg/m3 (only applicable for MF displacers) at maximum viscosity of 5 mPa·s
Power supply voltage		200 – 240V AC; 50/60Hz or 24 – 48 V DC
Software identification		Level gauge Version number: V10.9 - Checksum: 136699 Version number: V50.8 - Checksum: 31452 TF or MF displacer Version number: V5.2 - Checksum: 63162 Version number: V10.9 - Checksum: 63162
Data communication	Inputs	- HART
	Outputs	- Modbus - BPM - HART - 4-20 mA analog output

[1] In type evaluation report NMi-2579596-01 annex 3 includes performance test on the displacer for liquid density and temperature. The maximum permissible error is based on OIML R117-1:2019.

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Certificate history:
This revision replaces the previous versions.

Revision	Date	Description of the modification
Initial	14 June 2022	Initial issue
1	27 June 2025	Extension to 50 m and software update
2	14 August 2025	Adding remark to clarify where the MPE for density and temperature test came from. Correcting Type name.