

# CERTIFICAT OIML

## OIML CERTIFICATE

N° R49/2013-A-FR2-23.05 rév.2

Emis sous régime A Issued under scheme A

**Autorité de délivrance** : **Laboratoire National de Métrologie et d'Essais**  
**Issuing authority** : Personne responsable (Person responsible) : Emeric MOREL

**Demandeur** : DIEHL METERING SAS - 67 rue du Rhône BP 10160  
**Applicant** : FRANCE 68304 ST LOUIS CEDEX

**Fabricant** : DIEHL METERING SAS 67 rue du Rhône BP 10160  
**Manufacturer** : FRA 68304 ST LOUIS CEDEX

**Identification du type certifié** : Compteur d'eau DIEHL METERING type A3 / ALTAIR

Identification of the certified : Water meter DIEHL METERING type A3 / ALTAIR

**Caractéristiques** : Voir annexe  
**Characteristics** : See annex

Ce certificat atteste la conformité du modèle mentionné ci-dessus (représenté par les échantillons identifiés dans les rapports d'essais associés) aux exigences de la Recommandation suivante de l'Organisation Internationale de Métrologie Légale – OIML) :

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test reports with the requirements of the following Recommendation of the International Organization of Legal Metrology – OIML) :

### R49/2013 : Water meters for cold potable water and hot water

Ce certificat s'applique uniquement aux caractéristiques métrologiques et techniques du modèle d'instrument concerné, telles que couvertes par la Recommandation Internationale applicable. Ce certificat ne constitue en rien une approbation internationale à caractère légal. Note importante : à part la mention du numéro de référence du certificat avec le nom de l'Etat Membre de l'OIML dans lequel le certificat a été délivré, une reproduction partielle du certificat ou des rapports d'essais associés n'est pas autorisée, mais ils peuvent être reproduits dans leur totalité.

This certificate relates only to the metrological and technical characteristics of the pattern for the concerned instrument, as covered by the relevant OIML International Recommendation. 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 or the associated test report is not permitted, though they may be reproduced in full.

Les principales caractéristiques figurent dans l'annexe ci-jointe qui fait partie intégrante du certificat OIML de conformité et comprend 11 page(s).

The principal characteristics are set out in the appendix hereto, which forms part of the OIML certificate of conformity and consists of 11 page(s).



Etabli le 13 novembre 2024  
Issued on November 13th, 2024  
Autorité de délivrance / Pour Le Directeur Général  
Issuing Authority / On behalf of the General Director



Emeric MOREL  
Responsable du Département Certification  
Instrumentation  
Head of Instrumentation Certification Department

Référence LNE - 39216 rév. n°2

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*Identification of the certified pattern : A3 / ALTAIR*

*OIML R 49 EVALUATION REPORT (LNE) : P242845-2*

***Metrological characteristics***

<b>Type</b>	A3
<b>Version</b>	Linear
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Nominal Diameter</b>	15
<b>Body</b>	Brass
<b>Length (mm)</b>	110 - 115 – 145 – 165 – 170
<b>Connections</b>	Threads 3/4", 7/8"
<b>Position</b>	All positions
<b>Permanent flowrate <math>Q_3</math> (m<sup>3</sup>/h)</b>	1.6
<b>Overload flowrate <math>Q_4</math> (m<sup>3</sup>/h)</b>	2
<b><math>Q_3/Q_1</math> all positions</b>	500
<b><math>Q_3/Q_1</math> horizontal position</b>	630
<b><math>Q_2/Q_1</math></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
<b>Cyclical volume (cm<sup>3</sup>)</b>	38
<b>Temperature class</b>	T30 ; T50
<b>Maximum admissible pressure (bar)</b>	16
<b>Accuracy class</b>	2
<b>Pressure loss class</b>	$\Delta p_{63}$
<b>Flow profile sensitivity class</b>	U0D0
<b>Environmental class</b>	B/O
<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

\*\* In accordance with OIML R49-1 : 2013 §6.7.3.2.3

\*\*\* The meter can withstand accidental reverse flow without deterioration or change in its metrological properties for forward flow.

<b>Type</b>	A3
<b>Version</b>	Linear
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Nominal Diameter</b>	15
<b>Body</b>	Brass
<b>Length (mm)</b>	110 - 115 – 145 – 165 – 170
<b>Connections</b>	Threads 3/4", 7/8"
<b>Position</b>	All positions
<b>Permanent flowrate <math>Q_3</math> (m<sup>3</sup>/h)</b>	2.5
<b>Overload flowrate <math>Q_4</math> (m<sup>3</sup>/h)</b>	3.125
<b><math>Q_3/Q_1</math> all positions</b>	800
<b><math>Q_3/Q_1</math> horizontal position</b>	1000
<b><math>Q_2/Q_1</math></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
<b>Cyclical volume (cm<sup>3</sup>)</b>	38
<b>Temperature class</b>	T30 ; T50
<b>Maximum admissible pressure (bar)</b>	16
<b>Accuracy class</b>	2
<b>Pressure loss class</b>	$\Delta p_{63}$
<b>Flow profile sensitivity class</b>	U0D0
<b>Environmental class</b>	B/O
<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

\*\* In accordance with OIML R49-1 : 2013 §6.7.3.2.3

\*\*\* The meter can withstand accidental reverse flow without deterioration or change in its metrological properties for forward flow.

<b>Type</b>	A3
<b>Version</b>	Linear
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Nominal Diameter</b>	20
<b>Body</b>	Brass
<b>Length (mm)</b>	110 - 130 – 165 – 175 - 190
<b>Connections</b>	Threads 1“, 1 ¼”
<b>Position</b>	All positions
<b>Permanent flowrate Q<sub>3</sub> (m<sup>3</sup>/h)</b>	2.5
<b>Overload flowrate Q<sub>4</sub> (m<sup>3</sup>/h)</b>	3.125
<b>Q<sub>3</sub>/Q<sub>1</sub></b>	630
<b>Q<sub>2</sub>/Q<sub>1</sub></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
<b>Cyclical volume (cm<sup>3</sup>)</b>	59.9
<b>Temperature class</b>	T30 ; T50
<b>Maximum admissible pressure (bar)</b>	16
<b>Accuracy class</b>	2
<b>Pressure loss class</b>	Δp63
<b>Flow profile sensitivity class</b>	U0D0
<b>Environmental class</b>	B/O
<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

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\*\*\* The meter can withstand accidental reverse flow without deterioration or change in its metrological properties for forward flow.

<b>Type</b>	A3
<b>Version</b>	Linear
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Nominal Diameter</b>	20
<b>Body</b>	Brass
<b>Length (mm)</b>	110 - 130 – 165 – 175 - 190
<b>Connections</b>	Threads 1", 1 1/4"
<b>Position</b>	All positions
<b>Permanent flowrate Q<sub>3</sub> (m<sup>3</sup>/h)</b>	4
<b>Overload flowrate Q<sub>4</sub> (m<sup>3</sup>/h)</b>	5
<b>Q<sub>3</sub>/Q<sub>1</sub></b>	1000
<b>Q<sub>2</sub>/Q<sub>1</sub></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
<b>Cyclical volume (cm<sup>3</sup>)</b>	59.9
<b>Temperature class</b>	T30 ; T50
<b>Maximum admissible pressure (bar)</b>	16
<b>Accuracy class</b>	2
<b>Pressure loss class</b>	Δp63
<b>Flow profile sensitivity class</b>	U0D0
<b>Environmental class</b>	B/O
<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

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\*\*\* The meter can withstand accidental reverse flow without deterioration or change in its metrological properties for forward flow.

<b>Type</b>	A3
<b>Version</b>	Linear
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Nominal Diameter</b>	20
<b>Body</b>	Composite
<b>Length (mm)</b>	165 – 190
<b>Connections</b>	Threads 1"
<b>Position</b>	All positions
<b>Permanent flowrate <math>Q_3</math> (m<sup>3</sup>/h)</b>	2.5
<b>Overload flowrate <math>Q_4</math> (m<sup>3</sup>/h)</b>	3.125
<b><math>Q_3/Q_1</math></b>	630
<b><math>Q_2/Q_1</math></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
<b>Cyclical volume (cm<sup>3</sup>)</b>	59.9
<b>Temperature class</b>	T30 ; T50
<b>Maximum admissible pressure (bar)</b>	16
<b>Accuracy class</b>	2
<b>Pressure loss class</b>	$\Delta p_{63}$
<b>Flow profile sensitivity class</b>	U0D0
<b>Environmental class</b>	B/O
<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

\*\* In accordance with OIML R49-1 : 2013 §6.7.3.2.3

\*\*\* The meter can withstand accidental reverse flow without deterioration or change in its metrological properties for forward flow.

<b>Type</b>	A3
<b>Version</b>	Linear
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Nominal Diameter</b>	20
<b>Body</b>	Composite
<b>Length (mm)</b>	165 – 190
<b>Connections</b>	Threads 1"
<b>Position</b>	All positions
<b>Permanent flowrate <math>Q_3</math> (m<sup>3</sup>/h)</b>	4
<b>Overload flowrate <math>Q_4</math> (m<sup>3</sup>/h)</b>	5
<b><math>Q_3/Q_1</math></b>	1000
<b><math>Q_2/Q_1</math></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
<b>Cyclical volume (cm<sup>3</sup>)</b>	59.9
<b>Temperature class</b>	T30 ; T50
<b>Maximum admissible pressure (bar)</b>	16
<b>Accuracy class</b>	2
<b>Pressure loss class</b>	$\Delta p_{63}$
<b>Flow profile sensitivity class</b>	U0D0
<b>Environmental class</b>	B/O
<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

\*\* In accordance with OIML R49-1 : 2013 §6.7.3.2.3

\*\*\* The meter can withstand accidental reverse flow without deterioration or change in its metrological properties for forward flow.

<b>Type</b>	A3
<b>Version</b>	Concentric
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Body</b>	Brass or composite
<b>Connections</b>	G 1 ½" B
<b>Position</b>	All positions
<b>Permanent flowrate Q<sub>3</sub> (m<sup>3</sup>/h)</b>	2.5
<b>Overload flowrate Q<sub>4</sub> (m<sup>3</sup>/h)</b>	3.125
<b>Q<sub>3</sub>/Q<sub>1</sub></b>	630
<b>Q<sub>2</sub>/Q<sub>1</sub></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
<b>Cyclical volume (cm<sup>3</sup>)</b>	59.9
<b>Temperature class</b>	T30 ; T50
<b>Maximum admissible pressure (bar)</b>	16
<b>Accuracy class</b>	2
<b>Pressure loss class</b>	Δp63
<b>Flow profile sensitivity class</b>	U0D0
<b>Environmental class</b>	B/O
<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

\*\* In accordance with OIML R49-1 : 2013 §6.7.3.2.3

\*\*\* The meter can withstand accidental reverse flow without deterioration or change in its metrological properties for forward flow.



<b>Type</b>	A3
<b>Version</b>	Concentric
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Body</b>	Brass or composite
<b>Connections</b>	G 1 ½" B
<b>Position</b>	All positions
<b>Permanent flowrate Q<sub>3</sub> (m<sup>3</sup>/h)</b>	4
<b>Overload flowrate Q<sub>4</sub> (m<sup>3</sup>/h)</b>	5
<b>Q<sub>3</sub>/Q<sub>1</sub></b>	1000
<b>Q<sub>2</sub>/Q<sub>1</sub></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
<b>Cyclical volume (cm<sup>3</sup>)</b>	59.9
<b>Temperature class</b>	T30 ; T50
<b>Maximum admissible pressure (bar)</b>	16
<b>Accuracy class</b>	2
<b>Pressure loss class</b>	Δp63
<b>Flow profile sensitivity class</b>	U0D0
<b>Environmental class</b>	B/O
<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

\*\* In accordance with OIML R49-1 : 2013 §6.7.3.2.3

\*\*\* The meter can withstand accidental reverse flow without deterioration or change in its metrological properties for forward flow.

<b>Type</b>	A3
<b>Version</b>	Concentric MCI
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Nominal Diameter</b>	20
<b>Body</b>	Composite
<b>Length (mm)</b>	105 mm (flow-up body) 190 mm (horizontal body)
<b>Connections</b>	G3B
<b>Position</b>	All positions
<b>Permanent flowrate <math>Q_3</math> (m<sup>3</sup>/h)</b>	2.5
<b>Overload flowrate <math>Q_4</math> (m<sup>3</sup>/h)</b>	3.125
<b><math>Q_3/Q_1</math></b>	630
<b><math>Q_2/Q_1</math></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
<b>Cyclical volume (cm<sup>3</sup>)</b>	59.9
<b>Temperature class</b>	T30 ; T50
<b>Maximum admissible pressure (bar)</b>	16
<b>Accuracy class</b>	2
<b>Pressure loss class</b>	$\Delta p_{63}$
<b>Flow profile sensitivity class</b>	U0D0
<b>Environmental class</b>	B/O
<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

\*\* In accordance with OIML R49-1 : 2013 §6.7.3.2.3

\*\*\* The meter can withstand accidental reverse flow without deterioration or change in its metrological properties for forward flow.

<b>Type</b>	A3
<b>Version</b>	Concentric MCI
<b>Indicating device</b>	Plastic G1, Glass G1
<b>Nominal Diameter</b>	20
<b>Body</b>	Composite
<b>Length (mm)</b>	105 mm (flow-up body) 190 mm (horizontal body)
<b>Connections</b>	G3B
<b>Position</b>	All positions
<b>Permanent flowrate <math>Q_3</math> (m<sup>3</sup>/h)</b>	4
<b>Overload flowrate <math>Q_4</math> (m<sup>3</sup>/h)</b>	5
<b><math>Q_3/Q_1</math></b>	1000
<b><math>Q_2/Q_1</math></b>	1,6
<b>Indicating range</b>	9 999 ; 99 999
<b>Verification scale interval (dm<sup>3</sup>)**</b>	0,020 or 0,050
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<b>Climatic environment</b>	+5 ... +55°C
<b>Measurement of reverse flow***</b>	no

\* Lower values from the OIML R49-1 : 2013 §4.1.4 list are permitted

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**Picture**

*Actual meter name and presentation may differ. Legal markings may differ according to local regulation.*



*Water meter Diehl metering type A3  
DN20 linear hot and cold water*



*Water meter Diehl metering type A3  
concentric hot and cold water*



*Water meter Diehl metering type A3  
DN20 concentric MCI hot and cold  
water*