



EU - TYPE EXAMINATION CERTIFICATE

2014/32/EU Measuring Instruments Directive

Certificate No: 1783-MID-0204

In accordance with Measuring Instruments Directive dated February 26, 2014 and numbered 2014/32/EU of the European Union Parliament and Measuring Instruments Directive numbered 2014/32/AB which was published in Official Journal of Turkish Republic dated 29.06.2016 and numbered 29757:

Manufacturer : Jordan Factory for Meters Manufacturing Co, W. L.L.

**Amman – Zarqa Highway, Marka Industrial Area,
Amman – JORDAN**

Essential requirements Applied : MID Annex I and Annex MI-001

Name of Measuring Instrument : Water meter

Type : AJ-411

Environmental Classes

- Climatic -10 °C / +55 °C
- Mechanic M1 / O
- Electromagnetic E2

Project Number : 3399-24/217179

Comformity Assessment: 3399-MID-0204/2024-01

Date of issue : 07.10.2024

Valid until : 08.03.2026

Total Page Number : 18

**Dr. Alkan HAFÇI
Director of Directives
Ankara, 07.10.2024 Rev.00**



This Certificate is valid with its annexes and seal of "TSE- Notified Body number-1783".



1. General Information about Water Meter

1.1 Designation

Cold Water Meter(s) suitable for use in dwellings, commercial light industry and heavy industry; for indoor and outdoor, designed for measuring clean cold water volume, AJ-411 models, dry type, ultrasonic measurement principle, can be connected at any position.

1.2 Design

Essential Parts of the Meter

- Electronic card
- LCD display
- Lower Body
- Transducer

1.3 Metrological Characteristic

Measurement of the water volume passing through

1.4 Software

BAYLAN V2.2

Checksum 0x149CB80B

1.5 Supplementary equipments

Not applicable

1.6 Equipments out of the scope of MID

pre – paid device;

data recording and memorising device;

data output through module RF, MBUS, Modbus, LoRa, NB-iot GPRS veya SMARTcard;

Available for automatic meter reading and optical connection systems

pulse output (optional).

Coupling, Non-Return Valve



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AJ-411 Series (Screen 1):**LCD ICONS**

Flow direction



Lora Transmission

Valve shut off icon
(Activated when the valve is in closed state)

Battery Level Icon (The icon shows the charge level of the battery)



Warning Icon (Displayed when an exception or warning is active)



Key icon (Displayed in case of any detected defect)



Displays (128x64 Pixel GLCD)



Activated when the unit price is displayed on the screen.



Activated when the consumption is displayed on the screen. (cubic meter)

- MUNICIPALITY: indicates to which municipality the meter was produced.
- METER NO: Serial number of water meter.
- CONSUMER NO: consumer number of customer assigned.
- CONSUMPTION: The total consumption value of the meter in the flow direction.
- CREDIT: Consumer credit card amount.
- TOTAL CREDIT: Total amount of credit remaining on the meter.
- T 1/7 RATIO: Active tariff and unit price information.
- DIGIT: Active step definition and sequence.



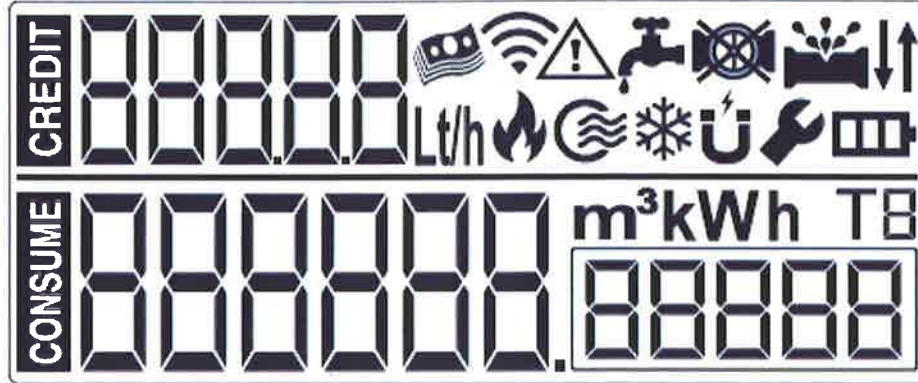


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AJ-411 Series (Screen 2):



	Shows the loan amount
	Consumption Used
	Displays
	Remaining Balance in Currency
	Radio Transmission
	Warning
	Leak
	Valve Status
	Burst
	Flow Direction
	Flowrate
	Fire Mode
	No water
	Frost
	Magnetic Penalty
	Service
	Battery Status
	Consumption Amount
	Heat Consumption Amount
	Tariff



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Sr-no
000022.34567

Serial No

PRICE
00100

Unit Price of Current Tariff

CS no
000000 000000

Customer No

STEP
0-5

Tariff Step Range

CREDIT 00020
CONSUME 000022 000000

Total Credit and Total Consumption

23 °C
dn 20 J3344

Temperature, Diameter and Version

00000 L/h
CONSUME 000000 000000

Flowrate and Total Consumption

08:51
22-05-2020

Date and Time

CREDIT LOAD
000

Last Loaded Credit Amount

CREDIT SPENT
000

Total Spent Credit Amount

CREDIT LOAD
00-00-2000

Last Loaded Credit Date

Authr
dEn70

Authority Name



**2. Technical and metrological data**

Type	-	AJ-411	AJ-411		AJ-411	AJ-411	AJ-411
Nominal Diameter	mm	15	20		25	32	40
Permanent Flowrate Q3	m ³ /h	2,5	2,5	4	6,3	10	16
Minimum Flowrate Q1	m ³ /h	0,00625	0,00625	0,01	0,0158	0,025	0,04
Transitional Flowrate Q2	m ³ /h	0,01	0,01	0,016	0,0252	0,04	0,064
Overload Flowrate Q4	m ³ /h	3,125	3,125	5	7,875	12,5	20
Ratio Q3 /Q1	-	400 ^a					
Connection Thread	mm	G ³ / ₄ "B	G1"B		G1 ¹ / ₄ "B	G1 ¹ / ₂ "B	G2"B
Construction Length	mm	165	190	190	225/260	230/260	200/300
Width	mm	91					
Total Overall Meter Height	mm	147			153,3	160,8	170
Pressure Loss Class		Δp_{16}	Δp_{25}	Δp_{63}	Δp_{16}		
Class		1 / 2					
Scale Interval	-	Screen 1: 0,000001					
		Screen 2: 0,00001					
Capacity of calculator	m ³	999999					
Description		a) Include R315, R250, R200, R160, R125, R100, R80, R63, R50, R40.					



**Common Features**

Environment Class	-	M1 / O
Electromagnetic Class	°C	E2
Installation Conditions	-	U0-D0
Reverse Flow		It is designed to perform reverse flow measurement.
Connection Position	-	All Position
Temperature Class	°C	T50
Maximum Working Pressure	bar	16
Maximum Permissible Error in upper flow rates $Q_2 \leq Q \leq Q_4$	%	$\pm 2 (\leq 30^\circ\text{C})$ (For Class 1 ± 1) $\pm 3 (\geq 30^\circ\text{C})$
Maximum Permissible Error in lower flow rates $Q_1 \leq Q < Q_2$	%	± 5 (For Class 1 ± 3)

3. Marking

The following data shall be marked on the water meter

- Unit of measurement
- Accuracy class, where it differs from accuracy class 2.
- manufacturer's name and/or registered trademark,
- type of water meter,
- year of production and serial number,
- continuous flowrate Q_3 and Q_3/Q_1 ratio (R),
- maximum operating pressure,
- connection shape, temperature class, pressure loss class, installation sensitivity class
- EU-type examination certificate number,
- conformity marking according to the regulation in regards to the measuring instruments
- The flow direction shall be marked on a water meter's body in the form of an arrow
- Battery life, environmental classification, electromagnetic environmental class.

3.1 Registered trademark of the manufacturer

The manufacturer uses the following figure inscription commercial trademark on the water meters

JO METER



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4. Sealing

The water meter shall be sealed with a sticker seal in order to prevent unauthorised interventions in electronic part and lower body connections.

5. Terms of Production, putting into use and usage

5.1 Production

- no special terms identified for production

5.2 Putting into use

- water meters must be installed in the plumbing as mentioned in installation instructions and/or user's manual of the manufacturer.

- no terms identified for straight pipe lengths at the inlet and exit of the meter, flow profile class of the meter was determined according to EN ISO 4064-1:2014.

- type tests of the meter were carried out according to EN ISO 4064-1:2014 and OIML R 49-1.

5.3 Requirements for usage

- must be used in accordance with the terms of the user's manual given by the manufacturer.

6. Documentation used within the scope of assessment

- Inspection and testing report dated 11.12.2017 and No: 719-MID-005/2017-01, issued by TSE
- Test Report issued by Baylan Ölçü Aletleri LTD. ŞTİ. By number of 118112601 and 26.11.2018
Dated

- Test Report issued by Baylan Laboratory by number of 1201809001 and 18.09.2020 dated.

- Test Report issued by Baylan Laboratory by number of 121110901 and 09.11.2021 dated.

- Test Report issued by Baylan Laboratory by number of 123051301 and 13.05.2023 dated.

- Inspection and testing report dated 10.05.2019 and No: EMC19-0142 issued by ELDAŞ Test ve Kalibrasyon Elektrik San. Tic. A.Ş.

- Inspection and testing report dated 23.10.2020 and No: EMC20-0588 issued by ELDAŞ Test ve Kalibrasyon Elektrik San. Tic. A.Ş.

- Manufacturer's technical file, technical drawings, component lists

7. Standards and regulations used within the scope of assessment

7.1 Regulations, harmonised standards and mandatory normative documents

- Measuring Instruments Directive numbered 2014/32/AB published in the Official Journal dated 29.06.2016 and number 29757

- EN ISO 4064-1:2017

- EN ISO 4064-2:2017

- EN ISO 4064-3:2014

- EN ISO 4064-4:2014

- EN ISO 4064-5:2017

- OIML R 49-1:2013





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- OIML R 49-2:2013

7.2 Reference documents

- WELMEC Guide 11.1
- WELMEC Guide 11.3
- WELMEC Guide 7.2

8. Conclusion

Structural, technical and metrological parameters of the meter which is going to be put into market must provide compatible with the documentation submitted with this Type Examination Certificate. The tested meters meet the requirements of the Measuring Instruments Directive dated 26 February 2016 and numbered 2014/32/EU of the European Union Parliament and the Council and the Measuring Instruments Directive numbered 2014/32/EU published in the Official Journal dated 29.06.2016 and number 29757 of Turkish Republic.

9. Annexes

- Annex-1: Illustrative pictures of the water meter**
- Annex-2: Main Dimensions of the water meter**
- Annex-3: Demonstration of Sealing**
- Annex-4: Marking**



ANNEX-1: Illustrative pictures of the water meter**AJ-411 DN15 165mm.****(Screen 1)****AJ-411 DN15 165mm.****(Screen 2)****AJ-411 DN15 190mm.****(Screen 1)**

AJ-411 DN15 190mm.**(Screen 2)****AJ-411 DN20 190mm.****(Screen 1)****AJ-411 DN20 190mm.****(Screen 2)****AJ-411 DN25 225mm.****(Screen 1)**



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AJ-411 DN25 225mm.

(Screen 2)



AJ-411 DN25 260mm.

(Screen 1)



AJ-411 DN25 260mm.

(Screen 2)



AJ-411 DN32 230mm.

(Screen 1)





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AJ-411 DN32 230mm.

(Screen 2)



AJ-411 DN32 260mm.

(Screen 1)



AJ-411 DN32 260mm.

(Screen 2)



AJ-411 DN40 200mm.

(Screen 1)





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AJ-411 DN40 200mm.

(Screen 2)



AJ-411 DN40 300mm.

(Screen 1)



AJ-411 DN40 300mm.

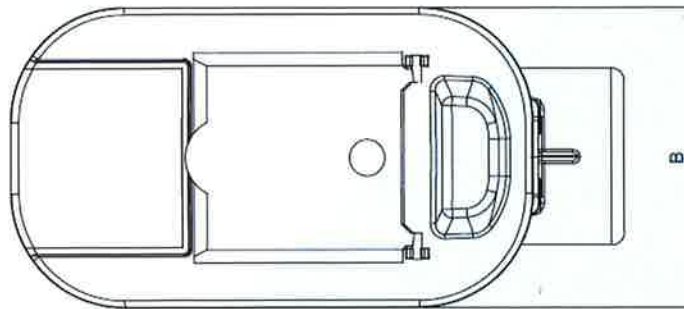
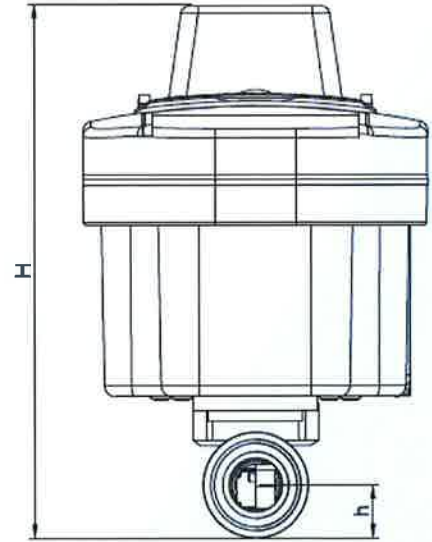
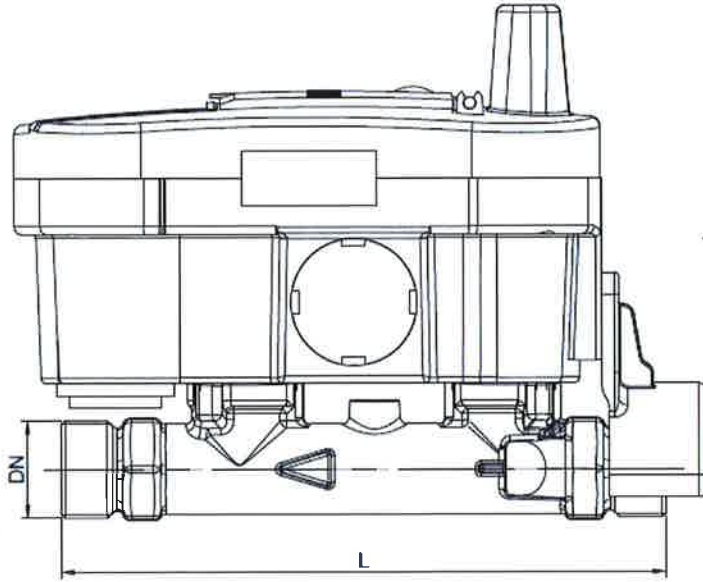
(Screen 2)



Annex-2: Main Dimensions of the water meter

AJ-411 Series:

DIMENSIONS					
Meter Size Dia.(mm) - DN	15	20	25	32	40
Meter Length (mm) - L	165	190	190	225/260	200/300
Width (mm) - B	91				
Total Overall Meter Height (mm) - H	147	147	153,3	160,8	170
Connection Dia.	G¾"B	G1"B	G1¼"B	G1½"B	G2"B
Axis Height (mm) - h	19	19	21,9	24,9	32

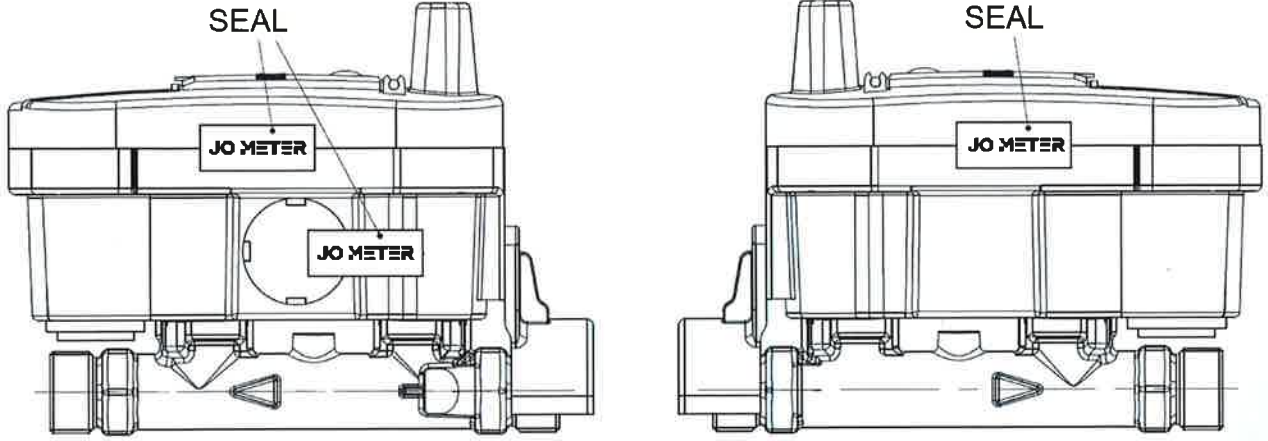




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Annex-3: Demonstration of Sealing



AJ-411

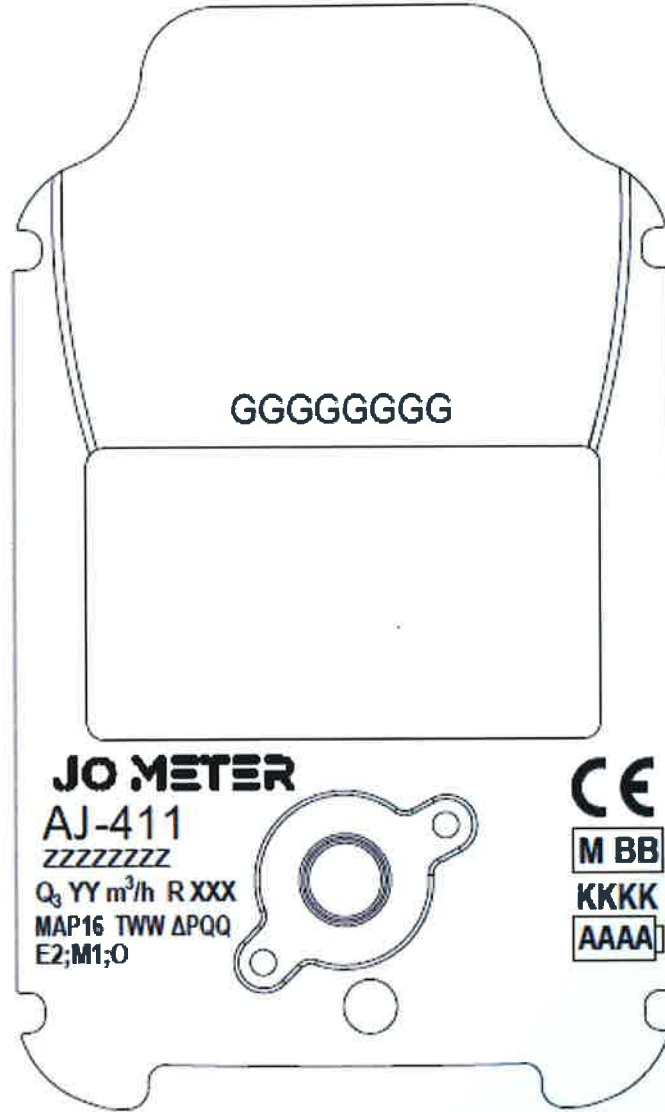




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Annex-4: Marking
AJ-411 Series:



- BB : Manufacturing year
- XXX : R value of the meter
- YY : Q₃ value of the meter
- GGGGGGGG : Serial number
- KKKK : D module approval number
- ZZZZZZZ : B module approval number
- WW : Temperature class of the meter
- QQ : Pressure loss class of the meter
- AAAA : The expire date of Battery





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REVISION PAGE

Rev. No.	Date	Revision Reason
00	07.10.2024	First Issue

