

Member State of OIML
United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No
R49/2013-GB1-17.01

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **NMO**
Person responsible: **Mannie Panesar – Head of Technical Services**
Applicant: **Arad Ltd
Dalia - Ramot Menashe
POB19239
Dalia
Israel**
Manufacturer: **The applicant**

Identification of the certified pattern: A family of cold-water meters, designated Octave, utilising an Ultrasonic measuring element and having a rated permanent flowrate Q_3 between 40 m³/h and 1000 m³/h.

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

OIML R49 - Edition 2013(E) for accuracy class: 2

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, 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 certificates reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.

This revision replaces previous versions of the certificate.

Issue Date: 3 April 2017



Marek Bokota
Technical Manager
For and on behalf of the Head of Technical Services

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The conformity was established by testing and examinations described in the associated Evaluation Report P02031 which includes 13 pages.

Characteristics of the instrument:

Meter Size (mm)	50	65	80	100	150	200
Q₃/Q₁ (R)	500	500	500	500	500	500
Q ₂ /Q ₁	1.6	1.6	1.6	1.6	1.6	1.6
Q ₁ Minimum flowrate (m ³ /hr)	0.08	0.08	0.125	0.20	0.5	0.8
Q ₂ Transitional flowrate (m ³ /hr)	0.128	0.128	0.2	0.32	0.8	1.28
Q ₃ Permanent flowrate (m ³ /hr)	40	40	63	100	250	400
Q ₄ Overload flowrate (m ³ /hr)	50	50	80	125	313	500

Table 1

Measuring principle:	Ultrasonic
Accuracy Class:	2
Q ₂ /Q ₁	1.6
Q ₃ /Q ₁	500
Environmental class:	T50 (0.1 °C to 50 °C)
Environmental class:	O (-25 °C to 55 °C)
Electromagnetic environment:	E1
Maximum admissible temperature:	50 °C
Maximum admissible pressure:	1.6 Mpa (16 bar)
Pressure Loss Class	0.16 bar

Installation details

Connection type	Flange
Minimum straight length of inlet pipe:	U0
Minimum straight length of outlet pipe:	D0
Flow conditioner (details if required):	None

Mounting

Orientation:	Can be installed in any position
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Functionality

Checking Facilities:	Measurement transducer, Calculator & Indicator
Checking Facilities Type:	P
Flow Measurement Direction:	The meter may or may not measure reverse flow depending on factory set-up - this should be marked on the Data Label

Output options:

Pulse Output Module
4-20mA Output Module
AMR Output Module
Encoder Protocol Output Module

Software versions:

Vers 3.15 or 3.16 or 3.17 or 4.00

Authorised Alternatives

50 mm Threaded Body Meter

Having a 50mm meter with the same technical specifications as described in table 1, but with a threaded connection replacing the flanges.

40 and 50 mm Plastic Body

As described in the certificate but having a plastic body meter with the following specifications.

Meter Size	Q_3/Q_1 (R)	Q_3 m ³ /h	PRESSURE LOSS	U/D
40mm	250	40	Δp 16	U0,D0
50mm	500	40	Δp 16	U0,D0

Meter Size	40 mm	50 mm
Q_3/Q_1 (R)	250	500
Q_2/Q_1	1.6	1.6
Q_1 Minimum flowrate (m ³ /hr)	0.16	0.08
Q_2 Transitional flowrate (m ³ /hr)	0.256	0.128
Q_3 Permanent flowrate (m ³ /hr)	40	40
Q_4 Overload flowrate (m ³ /hr)	50	50

250 mm Meter

Having the flanged design meter with 250 mm diameter having either a Q_3/Q_1 turndown ratio of 500 (R500) or 315 (R315), with the following related flowrates:

Q_3/Q_1 (R)	315	500
Q_2/Q_1	1.6	1.6
Q_1 (m ³ /hr)	2	2
Q_2 (m ³ /hr)	3.2	3.2
Q_3 (m ³ /hr)	630	1000
Q_4 (m ³ /hr)	787.5	1250

300 mm Meter

As described for the 250 mm above but with flanges of 300 mm, all the related flowrates are identical.

Octave 2

As described in the certificate but having alternative internal electronics. The only visible difference to the meter is the software version number change as shown on the label.

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
R49/2013-GB1-17.01	3 April 2017	Certificate first issued.
-	-	No revisions have been issued.