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REPORT OF CONFORMITY TEST

Date of issue: 18.09.2025 (dd.mm.yyyy)

Report No: 4754/191/LA/C/2025

Page 1/2

OBJECT OF CONFORMITY TEST	Volume conversion device Type: MacBAT 5 Serial number: 1009246006 Program version / Bootloader version: S013.78_V142637 / B15 CRC: CrcMain=934C8A73; CrcBoot=34CD6BC3 Gas pressure measurement range (P1): (0.8 ÷ 10) bar abs Gas temperature measurement range: (-30 ÷ 70) °C Pressure sensor serial number (P1): 1008652325 Temperature sensor serial number: 1008991904
MANUFACTURER	PLUM Sp. z o.o. ul. Wspólna 19, Ignatki, 16-001 Kleosin, Poland
EU-TYPE EXAMINATION CERTIFICATE	DE-19-MI002-PTB004
METHOD AND TEST CONDITIONS	Test procedure: ILAJ 5.4/10, according to point A.1.4.2 of EN 12405-1. Base conditions: $p_b = 1.01325$ bar, $T_b = 20$ °C Combustion reference temperature: $T_1 = 20$ °C Test algorithm range: $(-30 ÷ 70)$ °C Algorithm: AGA8-92DC Test gas (%mol): C1=85.9, C2=8.5, C3=2.3, n-C4=0.35, i-C4=0.35, n-C5=0.05, i-C5=0.05, neo-C5=0, C6+=0, N2=1, CO2=1.5, C6H14=0, C7H16=0, C8H18=0, C9H20=0, C10H22=0, H2=0, H2O=0, H2S=0, CO=0, He=0, Ar=0, O2=0
CONFORMITY WITH REQUIREMENTS	The object of conformity test meets the requirements specified in Annex IV of Directive 2014/32/EU of the European Parliament and of the Council. The results of conformity test have been presented on page 2 of this report including uncertainty of measurement.



MANAGER
of Internal Services Laboratory

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RESULTS OF CONFORMITY TEST Test results are the following.**Conversion factor C**

Reference value			Indication of tested device			Error	Uncertainty of measurement
Temperature	Pressure	Conversion factor	Temperature	Pressure	Conversion factor		
t_{cv}	p_{cv}	C_{cv}	t	p	C	e_c ¹⁾	U_c
°C	bar abs	-	°C	bar abs	-	%	%
-30.00	0.8000	0.953000	-30.00	0.8000	0.952971	0.00	0.14
-30.00	3.1000	3.732881	-30.00	3.0998	3.732658	-0.01	0.12
-30.00	5.4000	6.574500	-30.00	5.3998	6.574334	0.00	0.09
-30.00	7.7000	9.480834	-30.00	7.7004	9.481640	0.01	0.09
-30.00	10.0000	12.455438	-30.00	10.0000	12.455860	0.00	0.09
19.99	10.0001	10.097601	19.99	9.9999	10.097260	0.00	0.08
19.99	7.7000	7.729274	19.99	7.7005	7.729639	0.00	0.08
19.99	3.1000	3.075699	19.99	3.0998	3.075461	-0.01	0.12
19.99	0.8000	0.789172	19.99	0.8001	0.789244	0.01	0.14
69.98	0.8000	0.673602	69.97	0.8000	0.673587	0.00	0.14
69.98	3.1000	2.618602	69.97	3.0997	2.618408	-0.01	0.12
69.98	5.4000	4.576254	69.97	5.3995	4.575895	-0.01	0.08
69.98	7.7000	6.546439	69.97	7.7001	6.546639	0.00	0.08
69.98	10.0000	8.529220	69.97	9.9999	8.529327	0.00	0.08

¹⁾ relative error**Volume at base conditions V_b**

Reference value			Indication of tested device	Error	Uncertainty of measurement
Temperature	Pressure	Volume at base conditions			
t_{cv}	p_{cv}	V_{cv}	V_b	e_v ²⁾	U_v
°C	bar abs	m ³	m ³	%	%
19.99	5.4000	538.88	538.85	-0.01	0.08

²⁾ relative error

Maximum error $ e_c $	= 0.01%	< 0.5%
Error $ e_v $	= 0.01%	< 0.5%
Maximum error $ e_p $	= 0.01%	< 0.2%
Maximum error $ e_t $	= 0.00%	< 0.1%

ENVIRONMENTAL CONDITIONS

Ambient temperature: (23.0 ÷ 23.9) °C
 Relative humidity: (43 ÷ 54) %

DATE OF TEST

18.09.2025 (dd.mm.yyyy)

TRACEABILITY

This report provides traceability of measurement to national measurement standards, which realize the units of measurement according to the International System of Units (SI). Measurement standards applied for calibration have been listed below.

Name of measurement standards	Type	Serial number
Electronic Thermometer	MacREJ 5	1003659503
Standard Pulse Counter	MacIMP E	92701i
Pressure Controller	CPC 6050	41001M9T
Pressure Controller	CPC 6050	41001V1H

UNCERTAINTY OF MEASUREMENT

Uncertainty of measurement has been evaluated in compliance with EA-4/02. The expanded uncertainty assigned corresponds to a coverage probability of 95% and the coverage factor $k = 2$.