



Lithuanian National Accreditation Bureau is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (for accreditation of testing, calibration, medical examinations, certification of products, persons and management systems and inspection) and International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (for accreditation in the fields of testing, calibration, medical examinations and inspection)

## ACCREDITATION CERTIFICATE No. LA.01.036

Lithuanian National Accreditation Bureau hereby certifies that

complies with the requirements of

## Lithuanian energy institute Laboratory of heat- LST EN ISO/IEC 17025:2018 equipment research and testing

legal entity: Lietuvos energetikos institutas legal entity code: 111955219

and is competent to perform:

testing of solid fuel heating boilers and burners, domestic gas appliances, stationary pollution sources, solid biofuel and solid recovered fuel, water and therman energy meters

The scope of accreditation below is an integral part of this certificate. Locations of the conformity assessment body are specified in the scope of accreditation

Initial accreditation date:

2001-03-01

Certificate issued / valid since: 2025-08-06

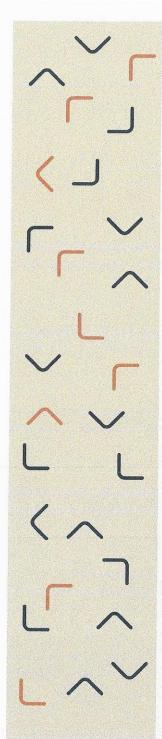
Version of: 2025-08-07 Expiry date: 2030-08-05

Deputy Director, acting as Director

TADAS JUODELIS

The certificate may be changed, its validity suspended or withdrawn by the decision of the National Accreditation Bureau. Information on the actual data of accreditation certificates may be verified at nab.lrv.lt









## SCOPE OF ACREDITATION (flexible)\*

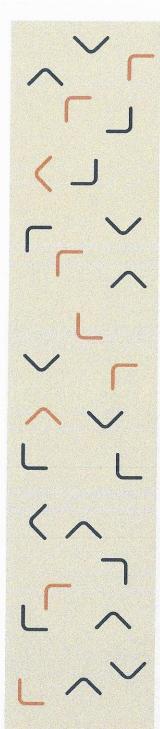
## Lithuanian energy institute Laboratory of heat-equipment research and testing, accredited in accordance with LST EN ISO/IEC 17025:2018

Location of the conformity assessment body:

Breslaujos str. 3, 44403 Kaunas, Lithuania

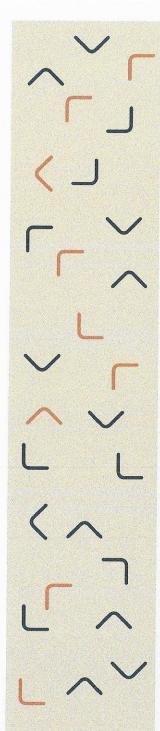
Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
Water meters:	Performance tests:	LST EN ISO 4064-2 / OIML R 49-2	
<ul> <li>with permanent flow</li> </ul>	Static pressure test	7.3 p. / 7.3 p.	Hydraulic method
rate	Determination of intrinsic errors (of	7.4 p. / 7.4 p.	Gravimetric or volumetric method
$Q_3 \le 125 \text{ m}^3/\text{h}, \text{ maximum}$	indication)		
admissible pressure (MAP)	Water temperature test	7.5 p. / 7.5 p.	Respond to impact testing principle
≤ 16 bar, temperature	Overload water temperature test	7.6 p. / 7.6 p.	Respond to impact testing principle
classes T30, T50, T70,	Water pressure test	7.7 p. / 7.7 p.	Respond to impact testing principle
T90, T30/70, T30/90 and	Reverse flow test	7.8 p. / 7.8 p.	Respond to impact testing principle
environmental class B	Pressure loss test	7.9 p. / 7.9 p.	Hydrodynamic pressure measurement
	Flow disturbance tests	7.10 p. / 7.10 p.	Respond to impact testing principle
	Tests of ancillary devices of a water meter	7.13 p./7.13 p.	Respond to impact testing principle
	Static magnetic field	8.16 p./8.16 p. LST EN ISO 4064-2 / OIML R 49-2	Respond to impact testing principle
	Performance tests for meters with electronic devices	from 8.2 to 8.18 p./ from 8.2 to 8.18 p.	Respond to impact <sup>1</sup> testing principle
	T - 4- 5- :-:::::::::::::::::::::::::::::	LST EN ISO 4064-2 / OIML R 49-2	
	Tests for initial verification	10.1 p./10.1 p.	Gravimetric or volumetric method
			impact <sup>1</sup> – impact 8.4 p., from 8.6 p.to 8.15 p. and 8.18 p. is determined by the subcontractor's accredited testing laboratory
– with permanent flow rate Q₃ ≤ 16 m³/h, maximum	Durability tests	LST EN ISO 4064-2/ OIML R 49-2 7.11.2, 7.11.3 p. / 7.11.2, 7.11.3 p.	Method of determining durability

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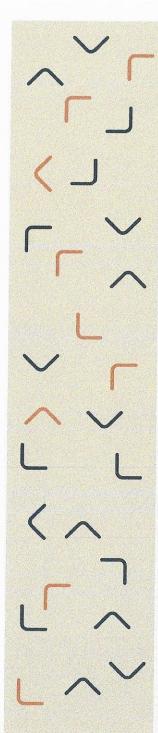
Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
admissible pressure (MAP) ≤ 16 bar, temperature classes T30, T50, T70, T90, T30/70, T30/90 and environmental class B			
2. Thermal energy meters		LST EN 1434-4 / OIML R 75-2	
and their sub-assemblies:	Performance tests	7.4. p. / 6.4. p.	Gravimetric or volumetric method. Simulation of temperature difference with thermostats or reference resistors
- complete meters and flow	Dry heat*	7.5. p. / 6.5. p.	Respond to impact testing principle
sensors with maximum	Cold*	7.6. p. / 6.6. p.	Respond to impact testing principle
admissible temperature	Static deviation in supply voltage*	7.7. p. / 6.7. p.	Respond to impact testing principle
Θ <sub>max</sub> ≤ 130 °C, maximum	Durability test***	7.8.2.1, 7.8.2.2, 7.8.2.3 p. / 6.8.1. p.	Method of determining durability
admissible working	Damp heat cyclic*	7.9.1 p. / 6.9. p.	Respond to impact 1 testing principle
pressure $p_{max} \le 25$ bar,	Short time mains voltage reduction*	7.10 p. / 6.10. p.	Respond to impact 1 testing principle
permanent flow rate q <sub>p</sub> ≤	Fast transients (bursts)*	7.11.1 p. / 6.11.1. p.	Respond to impact 1 testing principle
125 m³/h, environmental	Surge transients*	7.11.2 p. / 6.11.2. p.	Respond to impact 1 testing principle
classes A and C	Electromagnetic fields*	7.12 p. / 6.12. p.	Respond to impact 1 testing principle
- calculators	Electromagnetic field specifically caused by wireless equipment*	7.13 p. /	Respond to impact <sup>1</sup> testing principle
	Radio frequency amplitude	7.14 p. /	Respond to impact 1 testing principle
	modulated*	7.15 p. / 6.13. p.	Respond to impact 1 testing principle
	Electrostatic discharge*	7.16 p. / 6.14. p.	Respond to impact testing principle
	Static magnetic field	7.17 p. / 6.15. p.	Respond to impact testing principle
	Mains frequency magnetic field*	7.18 p. / 6.16. p.	Hydraulic method
	Internal pressure***	7.19 p. / 6.17. p.	Hydrodynamic pressure measurement
	Pressure loss***	7.20 p. /	Respond to impact 1 testing principle
	Electromagnetic emission*	7.21 p. /	Respond to impact testing principle
	24 h interruption in the mains power		
	supply voltage ** Flow disturbances***	7.22 p. /	Respond to impact testing principle
	*- the tests are applied to flow sensors		impact <sup>1</sup> – impact is determined by the
	with electronic devices and for		subcontractor's accredited testing laboratory
	calculators		subcontractor's accredited testing laboratory
	**- the test only applies to calculators		
	***- the test only applies to flow		
	sensors and complete meters		
temperature sensor pair		LST EN 1434-4 / OIML R 75-2	
comportation consort pair	Performance test	7.4.4, 7.4.3.2.3.1 p. / 6.4.3 p.	Direct measurement method and calculated
		P. T. T. P.	method: resistance measurement of temperature
			sensors in thermostats and conversion to
	Durability test (the high temperature	7.8.3 p. / 6.8.2 p.	temperature
	test)		Method of determining durability

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Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
- thermal energy meters and		LST EN 1434-5 / OIML R 75-2,	
their sub-assemblies	Initial verification tests	6 p. (except 6.8 p.) / 7 p.	Gravimetric or volumetric method. Calculation method: Simulation of temperature difference with thermostats or reference resistors
3. Water heating boilers for		LST EN 303-5	
solid fuel with a nominal	Pressure test	5.4, 5.5 p.	Hydraulic method
heat output of up to 500 kW	Heat output	5.6; 5.7.1-5.7.5 p.; 5.9.1-5.9.2 p. (LST EN 304 A.5; A.6 annexes)	Direct measurement method
	Efficiency	5.7.6; 5.9.3.1-5.9.3.6 p.; F.1-F.2 annexes (LST EN 304 6.10 p.; A.8 and A.10 annexes)	Direct balance method
	Electrical consumption	5.7.7 p.	Direct measurement method
	Emissions	5.6; 5.8; 5.9.4.1-5.9.4.4 p.; A and F.3	Infrared absorption, chemiluminescence and
		annexes (LST EN 304 A.2-A.3 annexes, LST EN 13284-1, CEN/TS 15883)	flame ionization detection method
	Waterside resistance	5.10 p., (LST EN 304 6.6 p.)	Pressure difference method
	Surface temperature	5.11 p.	Direct measurement method
	Verification of condensate	5.12 p., D ir E annexes, (LST EN ISO 11885)	Optical emission spectrometry method
	Function check of the temperature controller and safety temperature limiter	5.13 p.	Direct measurement method
	Function test for the rapidly disconnectable firing system	5.14 p.	Direct measurement method
	Function test on the device for dissipating excess heat	5.15 p.	Direct measurement method
	Safety of automatically loaded boilers	5.16.2, 5.16.3, 5.16.4 p.	Direct measurement of parameters
	Test for gas side leakage	5.16.6 p.	Hydraulic method
	Check of safety for condensing operation	5.17 p.	Visual control and direct measurement of parameters
	Checks of the safety for boilers with outside combustion air supply	5.18 p.; G annex	Visual control and direct measurement of parameters
Stationary pollution	Determination of particulate matter	LST EN 13284-1	Gravimetric and isokinetic methods
ources	concentration		
. Pellet burners for small		LST EN 15270	
neating boilers	Safety tests	6.6.1.1 – 6.6.1.10 p.	Visual control and direct measurement of parameters
	Maximum heat input	6.6.2.2 p.	Direct measurement method
	Reduced heat input	6.6.2.3 p.	Direct measurement method
	Testing at start-up phase	6.6.2.4 p.	Visual control and direct measurement of

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Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
			parameters
	Determination of the proportion of unburned fuel in the residue	6.6.3 p.	Gravimetric method
	Excess air ratio	6.6.4 p.	Experimental calculation method
	Electrical consumption	6.6.5 p.	Direct measurement method
	Start and ignition test	6.6.6 p.	Visual control
Domestic gas cooking		LST EN 30-1-1	
appliances with a heat input not exceeding 4.28 kW per	Verification of construction characteristics	7.2 p.	Visual control and direct measurement of parameters
burner	Soundness	7.3.1.1 p.	Hydraulic method
	Obtaining the rates	7.3.1.2 p.	Experimental calculation method
	Flame supervision device	7.3.1.3 p.	Visual control
	Safety of operation	7.3.1.4 p.	Visual control
	Limiting temperatures	7.3.1.5 p.	Direct measurement method
	Overheating	7.3.1.6 p.	Direct measurement method
	Total input rate of the appliance	7.3.1.7 p.	Direct measurement method
	Regulator performance	7.3.1.8 p.	Direct measurement method
	Ignition, cross-ignition, flame stability	7.3.2.1 p.	Visual control
	Resistance to draught	7.3.2.2 p.	Visual control
	Resistance to liquid spillage	7.3.2.3 p.	Visual control
	Emissions	7.3.2.4 p.	Infrared absorption method
	Specific tests for oven and grills	7.3.3 p.	Visual control
7. Solid biofuels	Sampling and sample preparation	LST EN ISO 14780	Sampling method. Quartering and shredding of
		LST EN ISO 18135	samples
	Determination of moisture content	LST EN ISO 18134-1	Gravimetric method
	Determination of moisture in general analysis sample	LST EN ISO 18134-3	Gravimetric method
	Determination of calorific value	LST EN ISO 18125 except annex A and annex B	Calorimetric method
	Determination of total content of carbon, hydrogen and nitrogen	LST EN ISO 16948	Gas chromatography method
	Determination of total content of sulfur and chlorine	LST EN ISO 16994, 8.1.1 chap., annex A	Ion chromatography method
	Determination of major elements	LST EN ISO 16967	Optical emission spectrometry method
	Determination of minor elements (except for Hg)	LST EN ISO 16968	Optical emission spectrometry method
	Determination of ash content	LST EN ISO 18122	Gravimetric method
8. Solid recovered fuels	Sampling and sample preparation	LST EN ISO 21645 LST EN ISO 21646	Sampling method. Quartering and shredding of samples
	Determination of moisture content	LST CEN/TS 15414-1	Gravimetric method
	Determination of moisture in general analysis sample	LST EN ISO 21660-3	Gravimetric method
	Determination of calorific value	LST EN ISO 21654, except annex A and annex B	Calorimetric method

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Materials or products tested	Component, parameter or characteristic to be tested	Reference number of the document specifying test methods, clause (if relevant)	Techniques, methods and/or equipment used (where appropriate)
	Determination of total content of carbon, hydrogen and nitrogen	LST EN ISO 21663	Gas chromatography method
	Determination of total content of sulfur and chlorine	LST EN 15408	Ion chromatography method
	Determination of elements (except Hg and S)	LST EN ISO 3884, except method D	Optical emission spectrometry method
	Determination of ash content	LST EN ISO 21656	Gravimetric method

<sup>\*</sup> One degree of flexibility is defined and applicable for the whole accreditation scope:

Flexibility case 1 – application of new or replacement editions or equivalent documents for testing methods submitted in the accreditation scope.

Actual accreditation scope is published on the website at: http://www.lei.lt

Note. In case of any discrepancies, ambiguities or disputes regarding the subject matter content between the English and Lithuanian versions of the document, the Lithuanian version shall prevail.

The accreditation certificate is signed with a qualified electronic signature as an attachment to the order of the Director of the National Accreditation Bureau, by which it was approved