



EA MLA Signatory
Český institut pro akreditaci, o.p.s.
Hájkova 2747/22, Žižkov, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

CERTIFICATE OF ACCREDITATION

No. 591/2024

TERMOSONDY Kladno, spol. s r.o.
with registered office **Dělnická 81, 272 01 Kladno,**
Company Registration No. 46358447

for the Calibration Laboratory No. 2305
Calibration Laboratory

Scope of accreditation:

Calibration of temperature and electrical quantities measuring devices to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2018

In its activities performed within the scope and for the period of validity of this Certificate, the Conformity Assessment Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Accredited Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 636/2019 of 29/11/2019, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **11/11/2029**

Prague: 11/11/2024



Jan Velišek
Director of the Department
of Testing and Calibration Laboratories
Czech Accreditation Institute



Accredited entity according to ČSN EN ISO/IEC 17025:2018:

TERMOSONDY Kladno, spol. s r.o.
CAB number 2305, Calibration Laboratory
Dělnická 81, 272 01 Kladno

CMC for the field of measured quantity: Temperature

Ord. number ¹	Calibrated quantity / Subject of calibration	Nominal range		Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty ²	Calibration principle	Calibration procedure identification ³	Location
		min unit	max unit					
1	Thermoelectric temperature sensors made of precious metals	0 °C	up to 200 °C		0.8 °C	Comparison with a standard thermometer in a liquid bath Comparison with a standard thermometer in a vertical furnace Comparison with a standard thermometer in a horizontal furnace	PP-Th 7/1-5-1	
		200 °C	up to 400 °C		1.4 °C			
		400 °C	up to 600 °C		1.9 °C			
		600 °C	up to 800 °C		2.3 °C			
		800 °C	up to 1000 °C		2.8 °C			
		1000 °C	up to 1200 °C		3.1 °C			
2	Thermoelectric temperature sensors made of common metals	1200 °C	up to 1554 °C		4.9 °C	Comparison with a standard thermometer in a vertical furnace	PP-Th 7/1-5-1	
		-30 °C	up to 200 °C		0.5 °C			
		200 °C	up to 400 °C		1.6 °C			
		400 °C	up to 600 °C		1.9 °C			
		600 °C	up to 800 °C		2.3 °C			
		800 °C	up to 1000 °C		2.8 °C			
3	Resistance temperature sensors	1000 °C	up to 1200 °C		3.1 °C	Comparison with a standard thermometer in a liquid bath Comparison with a standard thermometer in a vertical furnace Comparison with a standard thermometer in a horizontal furnace	PP-Th 7/1-5-2	
		0 °C	0 °C		0.12 °C			
		-70 °C	up to -40 °C		0.35 °C			
		-40 °C	up to 50 °C		0.16 °C			
		50 °C	up to 150 °C		0.18 °C			
		150 °C	up to 300 °C		0.60 °C			
300 °C	up to 400 °C	0.71 °C						
4	Glass thermometers	0 °C	0 °C		0.18 °C	Comparison with a standard thermometer in a liquid bath	PP-Th 7/1-5-4	
		-30 °C	up to 50 °C		0.23 °C			
		50 °C	up to 150 °C		0.25 °C			



Accredited entity according to ČSN EN ISO/IEC 17025:2018:

TERMOSONDY Kladno, spol. s r.o.
CAB number 2305, Calibration Laboratory
Dělnická 81, 272 01 Kladno

Ord. number ¹	Calibrated quantity / Subject of calibration	Nominal range		Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty ²	Calibration principle	Calibration procedure identification ³	Location
		min unit	max unit					
5	Infrared thermometers	50 °C 200 °C 400 °C 600 °C 800 °C 1000 °C	up to 200 °C up to 400 °C up to 600 °C up to 800 °C up to 1000 °C up to 1100 °C		4.0 °C 5.0 °C 5.8 °C 7.9 °C 10 °C 11 °C	Comparison with a standard thermometer on a black body model	PP-Th 7/1-5-5	
6	Contact thermometers	0 °C 25 °C	up to 25 °C up to 100 °C		1.5 °C 2.0 °C	Comparison with a standard thermometer on an Al contact plate Comparison with a standard thermometer on a Cu contact plate	PP-Th 7/1-5-6	
7	Bimetal and direct indicating thermometers	100 °C 200 °C -30 °C 50 °C	up to 200 °C up to 300 °C 0 °C up to 50 °C up to 150 °C		4.3 °C 4.9 °C 0.28 °C 0.30 °C 0.47 °C	Comparison with a standard thermometer on a liquid bath Comparison with a standard thermometer in a liquid furnace	PP-Th 7/1-5-17	
8*	Temperature measuring chains	150 °C 300 °C -70 °C -40 °C 150 °C 300 °C 400 °C 600 °C 800 °C 1000 °C 1200 °C	up to 300 °C up to 400 °C up to -40 °C up to 150 °C up to 300 °C up to 400 °C up to 600 °C up to 800 °C up to 1000 °C up to 1200 °C up to 1554 °C		1.0 °C 2.2 °C 0.45 °C 0.30 °C 0.70 °C 1.1 °C 2.9 °C 3.3 °C 3.6 °C 4.0 °C 5.9 °C	Comparison with a standard thermometer in the space of a thermoelectric device	PP-Th 7/1-5-7a PP-Th 7/1-5-7b	



Accredited entity according to ČSN EN ISO/IEC 17025:2018:

TERMOSONDY Kladno, spol. s r.o.
CAB number 2305, Calibration Laboratory
Dělnická 81, 272 01 Kladno

Ord. number ¹	Calibrated quantity / Subject of calibration	Nominal range		Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty ²	Calibration principle	Calibration procedure identification ³	Location
		min	max					
9*	Temperature calibrators (electric method)							
	thermocouples R	0 °C	up to 1760 °C		0.43 °C	Direct measurement with a standard multimeter 34401A	PP-Th 7/1-5-16	
	thermocouples S	0 °C	up to 1760 °C		0.45 °C			
	thermocouples B	0 °C	up to 1820 °C		0.57 °C			
	thermocouples J	-80 °C	up to 1200 °C		0.14 °C			
	thermocouples T	0 °C	up to 400 °C		0.09 °C			
	thermocouples E	0 °C	up to 1000 °C		0.12 °C			
	thermocouples K	-80 °C	up to 1300 °C		0.19 °C			
	thermocouples N	-80 °C	up to 1300 °C		0.18 °C			
	resistance sensors	-80 °C	up to 850 °C		0.16 °C			

¹ Asterisk at the ordinal number identifies the calibrations, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

² The expanded measurement uncertainty is in accordance with ILAC-P14 and EA-4/02 M a part of CMC and it is the lowest value of the respective uncertainty. If not stated otherwise, its coverage probability is approx. 95 %. If not stated otherwise, the uncertainty values stated without a unit are relative to the measured value. The uncertainty value stated herein is based on the best conditions achievable by the laboratory; the uncertainty value of a specific calibration may be higher depending on the conditions of such a calibration. For identical extreme values of adjacent ranges, the lower uncertainty value always applies.

³ If the document identifying the calibration procedure is dated only these specific procedures are used. If the document identifying the calibration procedure is not dated, the latest edition of the specified procedure is used (including any changes).



Accredited entity according to ČSN EN ISO/IEC 17025:2018:

TERMOSONDY Kladno, spol. s r.o.
CAB number 2305, Calibration Laboratory
Dělnická 81, 272 01 Kladno

CMC for the field of measured quantity: Electrical quantities

Ord. number	Calibrated quantity / Subject of calibration	Nominal range		Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty ²	Calibration principle	Calibration procedure identification ³	Location
		min unit	max unit					
1*	Direct-current voltage	0 mV 0.1 V 1 V 10 V	up to up to up to up to		3.5 μ V 0.005 % + 3.5 μ V 0.004 % + 7 μ V 0.0035 % + 0.05mV 0.0045 % + 0.6mV	Comparison with a standard multimeter 34401A	PP-Th 7/1-5-16	
2*	Direct current	0 mA 10 mA 0.1 A 1 A	up to up to up to up to		2.0 μ A 0.05 % + 2 μ A 0.05 % + 5 μ A 0.10 % + 1 mA 0.12 % + 6 mA	Comparison with a standard multimeter 34401A	PP-Th 7/1-5-16	
3*	Resistance	0 Ω 0.1 k Ω 1 k Ω 10 k Ω	up to up to up to up to		4m Ω 0.01 % + 4m Ω 0.01 % + 10m Ω 0.01 % + 100m Ω 0.01 % + 1 Ω	Comparison with a standard multimeter 34401A	PP-Th 7/1-5-16	

¹ Asterisk at the ordinal number identifies the calibrations, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

² The expanded measurement uncertainty is in accordance with ILAC-P14 and EA-4/02 M a part of CMC and it is the lowest value of the respective uncertainty. If not stated otherwise, its coverage probability is approx. 95 %. If not stated otherwise, the uncertainty values stated without a unit are relative to the measured value. The uncertainty value stated herein is based on the best conditions achievable by the laboratory; the uncertainty value of a specific calibration may be higher depending on the conditions of such a calibration. For identical extreme values of adjacent ranges, the lower uncertainty value always applies.

³ If the document identifying the calibration procedure is dated only these specific procedures are used. If the document identifying the calibration procedure is not dated, the latest edition of the specified procedure is used (including any changes).

"This document is an appendix to the certificate of accreditation. In case of any discrepancies between the English and Czech versions, the Czech version shall prevail, both for the certificate appendix and the certificate itself."

