Annex F2/18 to the Certificate No. 186-8
SCOPE of ACCREDITATION
of the
Calibration Laboratory
Calibration Technologies PC (CPT IKE)

Calibration item / Functions	Range of measurement	Expanded Uncertainty of Measurement (k=2)*	Remarks
Mass measurements			
Standard weights			Capability to calibrate standard weights according to OIML R 111:
	1 mg	18 µg	up to (including) class F2
	2 mg	18 µg	,, F2
	5 mg	18 µg	,, F2
	10 mg	18 µg	,, F2
	20 mg	18 µg	,, F2
	50 mg	18 µg	,, F2
	100 mg	18 µg	,, F2
	200 mg	19 µg	,, F1
	500 mg	19 µg	,, F1
	1 g	19 µg	,, F1
	2 g	19 µg	,, F1
	5 g	19 µg	,, F1
	10 g	19 µg	,, F1
	20 g	20 µg	,, F1
	50 g	25 µg	,, F1
	100 g	40 µg	,, F1
	200 g	50 µg	,, F1
	500 g	0,12 mg	,, F1
	1 kg	1,2 mg	,, F1
	2 kg	1,3 mg	,, F1
	5 kg	1,6 mg	,, F1
	10 kg	0,26 g	,, M2
	20 kg	0,28 g	,, M1
	50 kg	1,14 g	,, M2
Non-automatic electronic weighing instruments	1 mg	2,9 µg	Calibration according to guide EIM MM-MA-01a v02:2007 and Technical Guide EURAMET cg-18 ver 4.0
	2 mg	2,9 µg	
	5 mg	3,1 µg	
	10 mg	3,1 µg	

Calibration item / Functions	Range of measurement	Expanded Uncertainty of Measurement (k=2)*	Remarks
	20 mg	3,1 µg	Available standards OIML R 111 Class: E2: 1 mg – 5 kg (max grouped load 8,8 kg) F1: 1 g – 50 kg (max grouped load 100 kg) F2: 10 kg (max grouped load 10 kg) M2: 10 kg – 50 kg (max grouped load 400 kg) Calibration is performed on-site
	50 mg	3,2 µg	
	100 mg	7,3 µg	
	200 mg	7,6 µg	
	500 mg	8,1 µg	
	1 g	9,2 µg	
	2 g	9,0 µg	
	5 g	12 µg	
	10 g	14 µg	
	20 g	26 µg	
	50 g	27 µg	
	100 g	35 µg	
	200 g	0,14 mg	
	500 g	0,20 mg	
	1 kg	0,32 mg	
	2 kg	1,5 mg	
	5 kg	2,0 mg	
	(5 – 100) kg	$2{,}4 \cdot 10^{-6}$	
	(100 – 400) kg	$2{,}3 \cdot 10^{-4}$	
	(400 – 4.000) kg	$(1{,}2\ \text{kg} + 4{,}50 \cdot 10^{-5} \cdot \text{m}) \cdot \text{N}$	Calibration according to Technical Guide EURAMET cg-18 ver 4.0 using substitute loads Maximum available grouped load of mass standards : 400 kg m : load of mass standards in kg N : Number of substitute loads Calibration is performed on-site
Industrial process weighing systems	(1 - 3000) kg	$1{,}16 \cdot 10^{-3}$	Static calibration according to guide WG00496 of Measurement and Control Institute: “A code of practice for the calibration of industrial process Weighing Systems: 2011” Maximum available grouped load of mass standards: 3000 kg
Force measurements			
Force / Compression testing machines			EN ISO 7500-1:2018
	[0,5 – 5] kN	0,13 %	Class 0.5 machines to
	(5 – 15] kN	0,22 %	Class 1 machines to
	(15 – 50] kN	0,17 %	Class 0.5 machines to
	(200 – 2000] kN	0,25 %	Class 1 machines to
			Calibration is performed on-site
Force / Concrete specimen compression testing machines			Class A machines to EN 12390-4: 2025 Calibration is performed on-site
- Force indication	(200 – 2700) kN	0.15 %	
- Force transfer	(200 - 2700) kN	0.01	

Calibration item / Functions	Range of measurement	Expanded Uncertainty of Measurement (k=2)*	Remarks
- Force rate	(1 - 100) kN/sec	1.3 %	
- Flatness of machine plates	-	4 μm	
- Parallel of machine plates	-	6 μm	
- Roughness of machine plates	(0.2 – 5) μm (Ra)	0.20 μm (Ra)	
- Hardness of machine plates	(24-63) HRC	1 HRC	
Dimensional measurements			
Length/ Calipers:			
A) Analog / division 20 μm	(0 – 500) mm	12 μm	VDI/VDE/DGQ 2618 part 9.1: 2006 or/and ISO 13385-1:2019
B) Analog / division 50 μm	(0 – 500) mm	29 μm	
C) Analog / division 100 μm	(0 – 500) mm	57 μm	
D) Digital / division 10 μm	(0 – 500) mm	6 μm	
Length/ External spindle micrometers:			
A) Analog & Digital / division 10 μm	(0 – 25) mm	5,7 μm	VDI/VDE/DGQ 2618 part 10.1: 2001 or/and ISO 3611:2023 (class 2 or 3)
B) Analog & Digital / division 1 μm	(0 – 25) mm	0,7 μm	
Length/ Sieves:			
Wire cloth	(0,020 – 125) mm	(3,1 – 5,8) μm	ASTM E11: 2024
Metal wire cloth	(0,180 – 125) mm	(3,1 – 5,8) μm	ISO 3310-1: 2016
Perforated metal plate (circular holes)	(1 – 125) mm	(3,5 – 5,9) μm	ISO 3310-2: 2013 (except plate thickness and frame size)
Perforated metal plate (rectangular holes)	(4 – 125) mm	(3,5 – 5,9) μm	
Temperature measurements			
Analog & Digital direct reading thermometers	0 °C	0,066 °C	Internal calibration method O-50 using liquid bath and temperature resistance probe
	(30 up to 90) °C		
Total immersion, liquid in glass thermometers	0 °C	0,066 °C	Internal calibration method O-50 using liquid bath and temperature resistance probe
	(30 up to 90) °C		
Analog and digital room thermometers and temperature data loggers	(-20 up to +80) °C	0, 42 °C	Internal calibration method O-40 using climatic chamber and temperature resistance probe
Temperature chambers of volume up to 2000 l (ovens, incubators, refrigerators, freezers, environmental chambers)	(-20 up to +200)°C	0,40 °C	According to guide DKD-R 5-7:2018. Calibration can be performed on-site.
Relative humidity measurements			
Analog and digital hygrometers and relative humidity recorders	(40 - 95) % RH at 20 °C	2,5 % RH	Internal calibration method O-40 using climatic chamber and standard wet – dry bulb hygrometer.
Pressure measurements			
Gauge pressure meters, liquid medium, direct reading / Analog & Digital	(0.1 – 10) Mpa	40 hPa	Use of pressure indicating gauge Calibration method based on recommendation DKD R-6-1: 2014
	(10 – 40) Mpa	120 hPa	

* *Where the expanded uncertainty (with coverage probability 95 %) is accompanied by the corresponding unit, it is absolute, while where it is not accompanied by a unit, it is relative.*

The Calibration & Measurement Capability (CMC) includes the measurand, the measurement range and the measurement uncertainty and expresses the smallest measurement uncertainty that can be achieved in a calibration.

Site of assessment: **Permanent laboratory premises, Stavrochori Industrial Area, Kilkis, Greece.**
Approved Signatories: **E. Galanopoulos, K. Karambeti, G. Gelastopoulos, F. Vatsou.**

This Scope of Accreditation replaces the previous one dated 21.03.2025.
The Accreditation Certificate No. **186**-8, to ELOT EN ISO/IEC 17025:2017, is valid until 25.11.2029.

Athens, 23.09.2026

Konstantinou Evangelos Apostolos
CEO of ESYD