

Malta Competition and Consumer Affairs Authority

Standards and Metrology Institute

METROLOGY DIRECTORATE



Service Catalogue and Price List

Revision 0.2

27th September 2018

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Malta Competition and Consumer Affairs Authority
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1. Introduction to services

1.1. Groups of Services

1.1.1. The services of MD include calibration of measuring instruments/standards and issue of the relevant calibration certificates.

1.2. Classification of Services

1.2.1. The services are classified per group and metrological field as follows:

Code	For calibration services in Metrology of
CAL-MAS	Mass
CAL-TEM	Temperature
CAL-HUM	Humidity
CAL-LEN	Length
CAL-VOL	Volume
CAL-PRE	Pressure
CAL-ELE	Electrical
CAL-FRE	Time & Frequency

1.3. Contact information

1.3.1. Information on services can be provided by phone or email, or access to MCCAA web-site, as follows:

Metrology Directorate
Kordin Business Incubation Centre
Kordin. PLA 3000
Tel.: 21242420
e-mail: calibration.mccaa@mccaa.org.mt
<https://mccaa.org.mt>

1.4. Organization of services

1.4.1. All services are covered by the MCCAA Quality System, which meets the requirements of the ISO 9001 standard, as well as the legal requirements of the laws and regulations applicable to the operations of MD.

1.5. Handling of single requests for services

1.5.1. Clients' requests are received in writing and reviewed with respect to their technical requirements, time for implementation and other additional requirements. The outcome of the review is the submission of a relevant financial offer, which states the prices and the terms & conditions. It is recommended that clients use the codes and descriptions as presented in this catalogue in their requests.

1.5.2. The acceptance of the financial offer of MD should be completed, by filling-in and sending



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the terms and conditions form, which is part of the financial offer.

- 1.5.3. Services are planned according to the time-schedule of the work and the commitments of the laboratories of MD.

1.6. Contracts for services

- 1.6.1. Contracts signed between MD and a client define the subject, the time, the prices and the terms of co-operation.

**2. Mass (CAL-MAS)****2.1. (CAL-MAS-100) – Calibration of mass standards OIML class M1/M2/M3 –
Determination of Conventional Mass within an Uncertainty equal to 1/3 of mpe M1**

Code	Range or Nominal Value	Price (€)/piece
CAL-MAS-101	1mg –1kg	36.00
CAL-MAS-102	2kg – 10kg	43.00
CAL-MAS-103	20kg	61.00
CAL-MAS-104	50 kg	66.00
CAL-MAS-105	100kg	73.00
CAL-MAS-106	200kg	89.00
CAL-MAS-107	500kg	107.00
CAL-MAS-108	1000kg	130.00

**2.2. (CAL-MAS-200) – Calibration of mass standards OIML class F1/F2 – Determination of
Conventional Mass within an Uncertainty equal to 1/3 of mpe F1/F2**

Code	Range or Nominal Value	Price (€)/piece
CAL-MAS-201	1mg –1kg	42.00
CAL-MAS-202	2kg – 10kg	55.00
CAL-MAS-203	20kg	72.00

**2.3. (CAL-MAS-300) Calibration of weight standards OIML class E2 – Determination of
Conventional Mass within an Uncertainty equal to 1/3 of mpe E2**

Code	Range or Nominal Value	Price (€)/piece
CAL-MAS-301	1mg – 1kg	61.00
CAL-MAS-302	2kg – 10kg	80.00

2.4. (CAL-MAS-400) Calibrations of non-OIML mass standards

2.4.1. Depending on the required calibration uncertainty, the price per piece is defined according to CAL-MAS-100, CAL-MAS-200 and CAL-MAS-300, respectively, increased by 20%.

2.5. (CAL-MAS-500) Calibration of Non-Automatic Weighing Instruments

Code	Type	Capacity	Price (€)
CAL-MAS-501	Analytical (4 to 5 digits after decimal place)	Max ≤ 500g	75.00
CAL-MAS-502	Precision (1 to 3 digits after decimal point)	Max ≤ 50kg	60.00



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CAL-MAS-503	Technical (0 to 1 digit after decimal point)	Max ≤ 150kg	90.00
CAL-MAS-504	Industrial and Weighbridges (0 digit after decimal point)	150kg ≤ Max ≤ 60,000kg	Upon special technical review

**3. Temperature (CAL-TEM)****3.1. (CAL-TEM-100) – Calibration of liquid-in-glass and digital thermometers by comparison (-70°C to 500°)**

Code	Resolution	Price (€)/N points
CAL-TEM-101	0.2°C and higher	59.00 + 13.00 × N
CAL-TEM-102	0.1°C and 0.05°C	64.00 + 14.00 × N
CAL-TEM-103	0.02°C	77.00 + 17.00 × N
CAL-TEM-104	0.01°C	90.00 + 21.00 × N

3.2. (CAL-TEM-200) Calibration of Thermocouples (probe only) (Base Metals – K, J, N,..) by comparison (-70°C to 500°C)

Code	Price (€)/N points
CAL-TEM-201	61.00 + 23.00 × N

- 3.2.1. Verification against standard tolerances without calculation of coefficients of interpolating function – any number of points.
- 3.2.2. Calculation of calibration of coefficients – minimum five points.

3.3. (CAL-TEM-300) Calibration of Resistance Thermometers (Probe only)

Code	Price (€)/N points
CAL-TEM-301	96.00 + 33.00 × N

- 3.3.1. Verification against standard tolerances without calculation of coefficients of interpolating function – any number of points.
- 3.3.2. Calculation of calibration of coefficients – minimum five points.

3.4. (CAL-TEM-500) Characterization of Temperature-controlled Enclosures (Furnaces, Baths, Heaters, Refrigerated Trucks, Freezers, Refrigerators, Warehouses Incubators) (on site)

Code	Price
CAL-TEM-501	Upon special technical review

- At one temperature set-point to determine temperature profile at different positions (IEC 60068-3-5, WHO Technical Supplement 961, IEC 60068-3-11, DIN 12880, DKD-R 5-7, EURAMET CG20, etc...),
- For a single temperature set-point,
- [Price] = A + B × Nt + C × Nh,
- Where A, B and C are



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- A should take into account the following costs:
- Transport,
- B:
- Unit charge for the usage of temperature probes/sensors/dataloggers,
- Man/hour rate,
- Test set up,
- Data Analysis,
- Reporting.

3.5. (CAL-TEM-600) – Thermal Characterization of Autoclaves and Sterilizers

- Based on HTM 2010, EN 13060, EN 285, BS 3970–2, BS 2646–5
- Upon special technical review

3.6. (CAL-TEM-700) Calibration of dry-block Calibrators

- Based on the EURAMET Calibration Guide no. 13
- Upon special technical review



4. Humidity (CAL-HUM)

4.1. Calibrations are carried out at a fixed temperature (isotherm) and different humidity levels, or at a fixed humidity level but different temperatures. In both cases, cost is computed on the number of differential calibration points requested.

- RH calibration,
- first point: €50.00,
- additional points: €50.00 if on same isotherm; €60.00 if on a different isotherm,
- Temperature calibration,
- first point: €50.00,
- additional points: €50.00 if at same RH; €60.00 if at a different RH.



5. Length (CAL-LEN)

5.1. (CAL-LEN-100) Calibration of Standard Gauge Blocks

5.1.1. Calibration at different levels of uncertainty by mechanical comparison (ISO 3650/BS 4311)

Code	Number of pieces in the set	Price (€)/set
CAL-LEN-101	1	15.00
CAL-LEN-102	5	60.00
CAL-LEN-103	10	105.00
CAL-LEN-104	20	165.00
CAL-LEN-105	40	250.00
CAL-LEN-106	88	425.00
CAL-LEN-107	122	510.00

5.1.2. Note: For sets with a number of pieces not complying with the indicated ranges, calibration prices are assigned according to the following scheme: Price of closest set + price / additional pieces

Range of additional pieces	Price (€)/piece
2-4	11.00
6-9	9.00
11-19	6.00
21-39	5.00
41-87	4.00
89-121	2.50

5.2. (CAL-LEN-200) Calibration of length measuring instruments

- Upon special technical review.
- Price starting from € 40.00/piece depending upon resolution



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6. Volume (CAL-VOL)

- Volumetric vessels (2L to 100L),
- Gravimetric and Volumetric calibration,
- Based on ISO 4787, ISO/TR 20461, EURAMET CG19, EURAMET CG21,
- Only upon special technical review.



7. Pressure (CAL-PRE)

- Pressure gauges and transducers,
- Based on: EN 837-1:1996, EN 837-2:1997, EN 837-3:1996, EURAMET/cg-17/v.01: 2007, DKD-R 6-1:2003, SIT/Tec-009/05:2005, etc...,
- Only upon special technical review,
- Up to 20 MPa (gas) and up to 200 MPa (oil),
- Price will depend on the accuracy specification of the device to be calibrated, the pressure span and the number of calibration points,
- Only devices that can be connected to the reference standards of MD will be accepted,
- Pressure transmitting medium –either oil or gas – to be indicated by the Client,
- MD will not proceed with any adjustment operation unless otherwise requested by the Client.



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8. Electrical (CAL-ELE)

- Digital Multimeters – DMM's – (based on EURAMET CG15, VDI/VDE/DGQ/DKD 2622–3),
- Multi–function Calibrators – MFC's – (based on VDI/VDE/DGQ/DKD 2622–22.1),
- Standard resistors and resistance boxes (based on VDI/VDE/DGQ/DKD 2622–8),
- Temperature Electrical Simulators and Indicators (based on EURAMET CG11)
- Electrical Installation and Safety Testers
- Upon special technical review.
- Price will depend on the accuracy specification of the device to be calibrated, number of functions, number of ranges and sub-ranges for a particular function and number of calibration points.
- Only devices that can be connected to the reference standards of MD will be accepted.
- MD will not proceed with any adjustment operation unless otherwise requested by the Client.



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9. Time & Frequency (CAL-FRE)

- Stopwatches and timers,
- Tachometers,
- Upon special technical review,
- Price will depend on the accuracy specification of the device to be calibrated,
- Only devices that can be connected to the reference standards of MD will be accepted,
- MD will not proceed with any adjustment operation unless otherwise requested by the Client.



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10. Additional cost for clients

10.1. The client has to pay for extra cost related to:

- Transport of items for calibration to and from MD.
- Insurance cost, if there is any, to cover his equipment during transport and calibration.
- Extra cost of calibration for on-site calibration, which is fixed at € 40/man-day.

10.2. These costs are not included in the prices. In this respect, they are stated separately in the financial offers of MD.



11. Terms and conditions

11.1. Assignment of service prices

- 11.1.1. The price of each calibration service is assigned according to the Official Service & Price Catalogue of MD.
- 11.1.2. Prices for services, which are not reported in the Official Service & Price Catalogue of MD, are assigned according to MD costing and price policy. The unit price of MD services for 2018 is € 60 /man-hour of service.

11.2. Payment of cost of calibration by the client

- 11.2.1. The time and the method of payment for each calibration service are determined in the respective financial offer of MD according to a mutual agreement between MD and the client.

11.3. Additional costs for the client

- 11.3.1. Transport of equipment for calibration to and from the facilities of MD.
- 11.3.2. Daily compensation for on-site calibrations at a fixed rate of € 60/man-day over and above the cost of the service when supplied in the laboratory.
- 11.3.3. Insurance cost, if there is any, for coverage of client's equipment.

11.4. Additional responsibilities of the client

- 11.4.1. Information and data related to equipment and required for calibration.
- 11.4.2. Resources available in on-site equipment, if they are needed.

11.5. Planning and time for calibration and completion of service

- 11.5.1. As time of completion of the service is considered the time of receipt of the calibration certificate by the client.
- 11.5.2. Planning of service with respect to the time of start and completion is stated in the financial offer of MD.
- 11.5.3. Priorities are assigned according to a FIFO system (first in – first out).