

COUNTRY INFORMATION OF WELMEC MEMBERS



BOSNIA AND HERZEGOVINA

1. Organizational Structure and Background

Institute of Metrology of Bosnia and Herzegovina (IMBIH, met.gov.ba) is a National Metrology Institute (**NMI**) of Bosnia and Herzegovina and it is part of the state's quality infrastructure. IMBIH operates as an independent state administrative organization of the [Council of Ministers of BiH](#). Institute of Metrology of BiH separated from the Institute for Standardization, Metrology and Intellectual Property of BiH, and operates independently since January 1, 2007.

The metrology infrastructure of Bosnia and Herzegovina is established and governed through a comprehensive legal framework defined by the following key legislative acts:

- **Law on Metrology of Bosnia and Herzegovina** (Official Gazette of B&H, No. 19/2001)
- **Law on Measurement Units of Bosnia and Herzegovina** (Official Gazette of B&H, No. 19/2001)
- **Law on the Establishment of the Institute of Metrology of Bosnia and Herzegovina** (Official Gazette of B&H, No. 43/2004)

Under this framework, the national metrology system comprises the following components:

- **Institute of Metrology of Bosnia and Herzegovina (IMBIH)**, functioning as the national metrology institute and comprising reference and verification laboratory in Sarajevo.
- **Entity-level metrology institutions**, including the **Institute of Metrology of the Federation of Bosnia and Herzegovina** and the **Institute for Standardization and Metrology of the Republic of Srpska**.
- **Accredited laboratories** operating in accordance with the BAS EN ISO/IEC 17025 standard;
- **Nominated verification laboratories**, designated under the BAS EN ISO/IEC 17020 standard;

In accordance with current legislation, the Institute develops and implements a standardized measurement system within Bosnia and Herzegovina, ensuring traceability of measurements to the International System of Units (SI).

IMBIH actively represents Bosnia and Herzegovina in international metrology organizations, promoting the nation's metrological system and fostering international collaboration in scientific and legal metrology.

The Institute of Metrology of BiH achieves full membership in metrological organizations and research programs:

- **EURAMET** (European Association of National Metrology Institutes), European Organization for Scientific Metrology - since 2009;
- **EUROPEAN PARTNERSHIP** (European Partnership on Metrology), It is co-funded by the European Commission's Horizon Europe - the research and innovation programme – running from 2021 to 2027;
- **WELMEC** (European Cooperation in Legal Metrology), European Organization for Legal Metrology - since 2009;
- **IAEA/WHO SSDL Network** (International Atomic Energy Agency), WHO Network for Secondary Level Dosimetry Laboratories of the International Atomic Energy Agency - from 2018.

COUNTRY INFORMATION OF WELMEC MEMBERS

IMBiH has associate membership in the following organizations:

- **BIPM** (International Bureau of Weights and Measures), an international organization for scientific metrology - since 2011;
- **OIML** (International Organization of Legal Metrology), an international organization for legal metrology - since 1997;
- **COOMET** (Euro-Asian Cooperation of National Metrological Institutions), a regional Euro-Asian organization for scientific and legal metrology - since 2013;
- **GULFMET** (Gulf Association for Metrology), a regional metrology organization for scientific metrology for Gulf countries - since 2013;
- **SMIIC** (The Standards and Metrology Institute for Islamic Countries), the Institute for Standards and Metrology of Islamic Countries - since 2013;
- **Hallmarking Convention** (formerly IAAO - International Association of Assay Offices) an international organization for the certification and marking of objects of precious metals - since 2009.

The Institute of Metrology of BiH is a signatory of the Agreement on Mutual Recognition of the International Committee on Weights and Measures (CIPM MRA) within the International Bureau of Weights and Measures (BIPM) dated June 15, 2011, which was preceded by the associated membership of Bosnia and Herzegovina to the International General Conference on Weights and Measures (CGPM) on May 24, 2011. Under the CIPM MRA Agreement, all participating institutes mutually recognize the validity of the calibration and measurement certificates for the sizes, ranges and measurement uncertainties expressed for state standards in the BIPM KCDB.

The Institute for Metrology and Standardization of the Republic of Srpska and the Institute of Metrology of the Federation of Bosnia and Herzegovina represent the entity-level metrology institutions.

The Republic Institute for Standardization and Metrology is an administrative organization within the Ministry of Economy and Entrepreneurship of the Republic of Srpska. It is responsible for the fields of standardization, metrology, and the control of articles made of precious metals, as well as for certain conformity assessment activities within the territory of the Republic of Srpska.

The Institute of Metrology of the Federation of Bosnia and Herzegovina is responsible for implementing metrology-related tasks within the Federation. The Institute also maintains relevant registers, establishes verification centers, and cooperates with other institutions in Bosnia and Herzegovina on activities not under the jurisdiction of state-level bodies.

Direct control of objects made of precious metal is carried out by the entity-level metrology institutions. Control of prepackaged product quantities is performed by authorized metrology institutions, market inspection, or entities designed by the Institute.

IMBiH operates across three key metrological domains:

- **Scientific metrology** – realizing and maintaining state measurement standards, ensuring SI traceability, conducting R&D, participating in international comparisons, and coordinating scientific metrology activities at the national level;
- **Industrial metrology** – supporting industry through calibrations, metrological traceability, interlaboratory comparisons, and quality improvement projects in alignment with BAS EN ISO/IEC 17025 and other relevant standards;
- **Legal metrology** – conducting conformity assessments, setting regulatory requirements for measuring instruments, appointing and supervising legal metrology laboratories, and ensuring compliance with national and EU technical legislation.

COUNTRY INFORMATION OF WELMEC MEMBERS

IMBiH also plays a critical role in the **harmonization of Bosnia and Herzegovina's metrology legislation with European Union directives**, serving as the designated body for their transposition and implementation. Currently, the Institute is responsible for applying the following EU directives:

- **Directive 2014/32/EU** on Measuring Instruments (replacing 2004/22/EC),
- **Directive 2014/31/EU** on Non-Automatic Weighing Instruments (replacing 90/384/EEC and 93/68/EEC),

In accordance with Bosnia and Herzegovina's strategic development priorities and the general principles adopted by the Council of Ministers, IMBiH contributes significantly to the realization of **integrated growth**, particularly by enabling the **free movement of goods** in the internal market. The Institute supports the development of a harmonized **quality infrastructure**, comprising metrology, standardization, accreditation, conformity assessment, and market surveillance, which is crucial for the **recognition of products and certificates** within the EU and international markets.

With its calibration and verification laboratories and participation in international networks and technical committees, IMBiH stands as a cornerstone institution for ensuring **measurement reliability, regulatory compliance, and scientific advancement** within Bosnia and Herzegovina's economy and society.

2. Equipment Subject to National Controls with verification periods

According to the **Order on measuring instruments in legal metrology and verification intervals** (Official Gazette of B&H, No. 71/2023) below are listed measuring instruments subject to mandatory verification and the intervals at which verification is carried out.

Measuring devices	Period of verification (year)
Water meters	
cold water	5
hot water	3
Flow/gas volume and volume correctors	
≤ G10	7
> G10	6
Electrical meters	
Indirectly connected	6
Direct and semi-direct connection	12
Heat meters	
Measuring systems for continuous and dynamic measurement of quantities of liquids other than water	
Measuring instruments and measuring systems for measurement of flow/volume of liquid gases (LPG)	1
Measuring instruments and measuring systems for measurement of flow/volume drinks and commercial liquids	2
Measuring systems for cryogenic liquid	2
Measuring systems for compressed gaseous fuel	1
Automatic weighting instruments	1

COUNTRY INFORMATION OF WELMEC MEMBERS

Taximeters	1
Dimensional measurement (length and area)	
Length equipment for general purpose (measuring tape, folding length gauges, meter for textile, measuring rack for level measurement of liquids in tanks, measuring rulers, measuring tapes with and without surplus, a measure for trunk-bench)	2
Equipment for measuring wire and cable length	2
Automatic liquid level gauges	2
Non-automatic weighting instruments of accuracy class I, II, III and IV	
Up to max capacity of 9000 kg	2
Over capacity of 9000 kg	1
Weights of accuracy class F1, F2, M1, M2, M3	2
Measuring instruments for pressure	
Blood pressure monitor	2
Tire pressure gauges for motor vehicles	2
Measuring instruments for control of motor vehicles	
Measuring instruments for braking force	1
Measuring instruments for measuring the axle load vehicles in motion	1
Measuring instruments for speed of vehicles	1
Measuring instruments for determining the density and concentration meters used in the trade of goods	
Electronic densitometers	1
Areometers for general purposes	*
Special-purpose areometers	*
Pycnometers	*
Alcoholmeters	*
Refractometers for determination of sugar content	1
Butyrometers	*
Measuring instruments for measuring amount of substance	
Etilometers	1
Exhaust gas analyser	1/2
Opacimeter	1/2
Measuring instruments for ionising radiation	
Dosimeters used for health protection	2
Semiconductor counters	2
GM counters	2
Scintillation counters	2
Ionizing radiation detectors used for health protection, general safety and environmental protection	2
Volume measuring instruments	
Tanks and horizontal reservoirs	6
Vertical reservoirs	10
Measuring containers for milk, beverages and commercial liquids	5
Catering containers, bottles and glasses	*
Measuring instruments for time	

COUNTRY INFORMATION OF WELMEC MEMBERS

	Peoplemeter	3
	Electronic parking meters	1
	Tahographs	**
Measuring instruments for maintaining humidity of grains and oilseeds		1
Medical measuring instruments		
	Anaesthesiology machines	1
	Defibrillator	1
	Dialysis machines	1
	ECG - Electrocardiographs	1
	Infusomats and Perfusors	1
	Neonatal and paediatric incubators	1
	Patient monitors	1
	Respirators	1
	Therapeutic ultrasound devices	1
Instrument transformers		*
*The measurements are only subject to the first verification		
** Under the jurisdiction of the Ministry of Transport and Communication of Bosnia and Herzegovina, subject to testing and type approval		

In Bosnia and Herzegovina, the verification of measuring instruments within legal metrology is organized as a distributed system. Alongside the Institute of Metrology of BiH, which is the central authority, other metrological laboratories may also perform verification activities. Under the Law on Metrology of BiH, verification can be carried out by nominated metrological laboratories and verification centers. These may include independent scientific labs, Institute laboratories, and entity-level verification centers in the Federation of BiH and Republika Srpska.

To be nominated, laboratories must meet several key requirements, including:

- Accreditation to BAS EN ISO/IEC 17020,
- Compliance with Institute regulations,
- Qualified personnel,
- Adequate and traceable measuring equipment,
- Suitable premises,
- Familiarity with relevant legislation.

All laboratories must be officially nominated and supervised by the Institute of Metrology of BiH.

With the signing of the Stabilization and Association Agreement with the EU, BiH laws must align with EU legislation. The Institute of Metrology of BiH is responsible for implementing the Measuring Instruments Directive (MID) and the Non-Automatic Weighing Instruments Directive (NAWID), both transposed into national law. In line with these directives, conformity assessment bodies have been recognized under relevant assessment modules.

COUNTRY INFORMATION OF WELMEC MEMBERS

3. Markings used in type approval and verifications

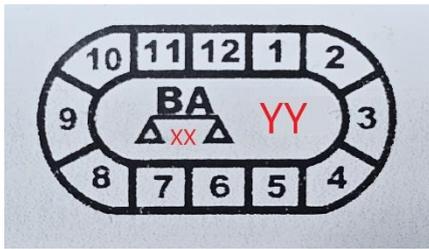


Image 1: Verification mark of verification center (IMBIH)

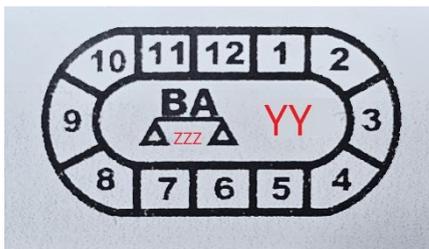


Image 2: Verification mark of nominated verification laboratory



Image 3: Verification seal of IMBIH



Image 4: Verification seal of nominated laboratory

Official verification mark

An official verification mark with an identification code in the form from 2012, a self-adhesive label is to be marked on each measuring instrument that IMBIH or nominated laboratory appointed by the Institute has verified (if it is technically possible). The label is made with a black print on white background with several specific protection elements.

XX - the identification number of IMBIH (Image 1)
YY - the last two digits of the year of verification

ZZZ - mark of measuring instrument category and identification number of verification laboratory (Image 2)

Official signs may only have the following dimensions: 30 mm x 16 mm

Official verification seal

An official verification seal is circular in shape, with a symbol of a scale inside. It has the following identification marks:

XX - the identification number of IMBIH (Image 3)

ZZZ - mark of measuring instrument category and identification number of nominated laboratory (Image 4)

Official seal may only have the following dimension: Ø 8 mm

BA XX – YY - ZZZZ

Type approval mark

The mark is assigned to the type of measuring instrument in the type approval certificate and is marked on each specimen of measuring instrument. The mark is placed on the measuring instrument by the manufacturer (if technically possible) - on some types of measuring instruments the mark of type approval is not indicated (e.g. weight, tap containers, measuring glass, etc.).

XXX – letter mark of the measuring field to which instrument belongs

YY – number mark of the sub-field to which instrument belongs

ZZZZ – ordinal number of official marking of the measuring instrument in the sub-field