

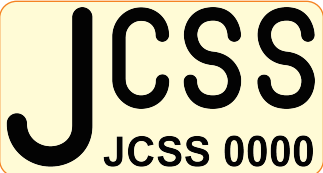


# JCSS ensures the metrological traceability

The JCSS (Japan Calibration Service System) is the accreditation scheme for calibration laboratories under the Measurement Act. Since accreditation under the JCSS demands metrological traceability to the primary standards realized at the National Metrology Institute of Japan (or at the designated institutes), calibration certificates issued by the laboratories accredited under the JCSS could be used as a proof of traceability. Detailed features of the JCSS calibration certificate are shown here.

			page 1 of 2 Certificate No. 000000
<b>Calibration Certificate</b>			<b>JCSS Accreditation Symbol:</b> This JCSS Accreditation Symbol could be only attached to the JCSS Calibration Certificate issued by JCSS Accredited Calibration Laboratory. This is the clear identification that the metrological traceability and the technical competence are ensured.
Customer name	XXYYZZ Co., Ltd.		
Address of customer	AA town 1234, BB City, CC Prefecture, 123-3456 Japan		
Name of item	Liquid-in-glass thermometer	This is a sample for liquid-in glass thermometer. Other various calibration services are also accredited under the JCSS. For further information, please access to IAJapan Website. <a href="https://www.nite.go.jp/en/iajapan/jcss/">https://www.nite.go.jp/en/iajapan/jcss/</a>	
Type	Scale range 0 °C-50 °C, Scale interval 0.1 °C		
S/N	0000		
Name of manufacturer	AABBCC Co., Ltd.		
Measurand	Temperature		
Calibration method	Comparative Calibration Manual (LIGT-001WSLIGT)		
Calibration location	Temperature Calibration Laboratory, DDEEFF Co., Ltd. XX Town, YY City, ZZ Prefecture, 789-0123 Japan		
Ambience conditions of room	Temperature 23 °C±5 °C, Relative humidity 65 %±20 %		
Calibration date	YYYY, MM, DD		
We certify your calibration results are as the following page.			
YYYY MM DD		XX Town, YY City, ZZ Prefecture, 789-0123 Japan	
Dr. Ichiro Ondo (Signature of Stamp)		Director of Temperature Calibration Laboratory	
DDEEFF Co., Ltd.			
ISO/IEC 17025 is the international standard defining the general requirements for the competence of testing and calibration laboratories. Laboratories accredited under the JCSS fully conform to this standard.			
<ul style="list-style-type: none"><li>- This certificate is based on the article 144 of the Measurement Act and indicates the result of calibration in accordance with measurement standards traceable to Primary Measurement Standards (National Standards) which realizes the physical units of measurement according to the International System of Units (SI). The accreditation symbol is an attestation of which the result of calibration is traceable to Primary Measurement Standards (National Standards).</li><li>- The certificate shall not be reproduced except in full, without the written approval of the issuing laboratory.</li><li>- The calibration laboratory which issued this calibration certificate conforms to ISO/IEC 17025:2017.</li><li>- This calibration certificate was issued by the calibration laboratory accredited by IAJapan which is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Asia Pacific Accreditation Cooperation (APAC). This (These) calibration result(s) may be accepted internationally through ILAC/ APAC MRA.</li></ul>			

Through the ILAC/ APAC MRA, the calibration certificate with JCSS Accreditation symbol can be accepted worldwide.



# JCSS

## Calibration Results

Indicated temperature (°C)	Calibration value (°C)	Expanded uncertainty (°C)
0.00	-0.04	0.04
10.00	9.97	0.07
20.00	19.94	0.07
30.00	29.93	0.07
40.00	39.90	0.07
50.00	50.20	0.07

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k = 2$  such that the coverage probability corresponds to approximately 95 %.

### Calibration conditions

1. Ambient conditions of room at calibration: Temperature 21 °C-25 °C  
Humidity 50 %-80 %.
2. As an acceptance test, the artefact was annealed at the maximum temperature for 30 minutes before performing the calibration.
3. Baths used for calibration  
Ice-point bath was used for calibration at 0 °C.  
Water bath was used for calibration for 10 °C-50 °C.

“uncertainty of measurement (= measurement uncertainty)”

Non-negative parameter characterizing the dispersion of the quantity values being attributed to a measurand, based on the information used. Usually in calibration certificates, the expanded uncertainty is reported so that the coverage probability corresponds to approximately 95 %.

JCSS accreditation certificates are accepted in various fields. For example...

- JCSS Calibration certificates for reference gases: Ensuring the quality of the reference gas which is used for analysis of the exhaust gas from the factories.
- JCSS Calibration certificates for audiometers: Maintaining the quality of the audiometer which is used at the audibility test in Japanese elementary schools.
- JCSS Calibration certificates for Radio Frequency instruments: JCSS calibration certificates are acceptable by the regulatory body under the Telecommunications Business Act and the Radio Act.

JCSS Calibration certificates underpin the metrological traceability, and furthermore, the quality of measurements to support our daily life, our industry and international trade.

Contact us

IAJapan, National Institute of Technology and Evaluation  
<https://www.nite.go.jp/en/iajapan/>

