



China National Accreditation Service for Conformity Assessment
LABORATORY ACCREDITATION CERTIFICATE
(Registration No. CNAS L14321)

Micro Precision Calibration (Wuxi) Co., Ltd.

(Legal Entity: Micro Precision Calibration (Wuxi) Co., Ltd.)

Room 101, Building C, No.5, Xinhua Road, Xinwu District, Wuxi,
Jiangsu, China

is accredited in accordance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence to undertake the service described in the schedule attached to this certificate.

The scope of accreditation is detailed in the attached schedule bearing the same registration number as above. The schedule forms an integral part of this certificate.

Effective Date: 2021-02-05

Expiry Date: 2027-02-04

Signed on behalf of China National Accreditation Service for Conformity Assessment

China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is a signatory of the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement (ILAC MRA) and the Asia Pacific Accreditation Cooperation Mutual Recognition Arrangement (APAC MRA).

The validity of the certificate can be checked on CNAS website at <http://www.cnas.org.cn/english/findanaccreditedbody/index.shtml>.

Name: Micro Precision Calibration (Wuxi) Co., Ltd.

Address: Room 101, Building C, No.5, Xinhua Road, Xinwu District, Wuxi, Jiangsu, China

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Accreditation Criteria: ISO/IEC 17025:2017 and relevant requirements of CNAS

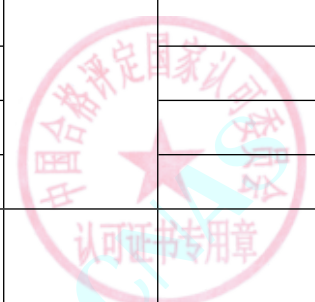
Effective Date: 2025-02-25 Expiry Date: 2027-02-04

CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT
SCHEDULE OF ACCREDITATION CERTIFICATE

SCHEDULE 5 ACCREDITED CALIBRATION AND MEASUREMENT CAPABILITY SCOPE

Note: The instruments with * represents onsite calibration can be performed.

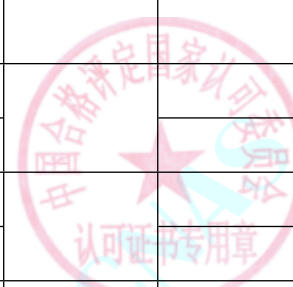
| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty (k=2) | Note | Effective Date |
|------------|--|-------------|---|-------------|----------------------------|------|----------------|
| Thermology | | | | | | | |
| 1 | Filled System Thermometers | Temperature | Calibration Specification for Filled System Thermometers JJF1909 | (-60~300)°C | U=0.4°C | | |
| 2 | Liquid-in-Glass Thermometers for Working | Temperature | Verification Regulation of Liquid-in-Glass Thermometers for Working JJG 130 | (-60~0)°C | U=0.06°C | | |
| | | | | (0~50)°C | U=0.03°C | | |
| | | | | (50~100)°C | U=0.04°C | | |
| | | | | (100~150)°C | U=0.05°C | | |
| | | | | (150~300)°C | U=0.08°C | | |
| 3 | Bimetallic Thermometers | Temperature | Calibration Specification for Bimetallic Thermometers JJF1908 | (-60~300)°C | U=0.4°C | | |



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| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty (k=2) | Note | Effective Date |
|----|--|----------------------------------|--|-----------------------------------|--------------------------------|------|----------------|
| 4 | Temperature Data Acquisition Instruments | Temperature | Calibration Specification of Temperature Data Acquisition Instruments JJF 1366 | With thermocouple: (-60~300)°C | U=0.4°C | | |
| | | | | With Pt100: (-60~300)°C | U=0.3°C | | |
| 5 | Temperature Itinerant Detecting Instrument | Temperature | Calibration Specification for Temperature Itinerant Detecting Instrument JJF 1171 | (-60~300)°C | U=0.12°C | | |
| 6 | Digital Thermometer | Temperature | Calibration Specification for Digital Thermometer JJF(Su) 95 | (-60~300)°C | U=0.2°C | | |
| 7 | Platinum Resistance Thermometers | Temperature | Verification Regulation of Industry Platinum and Copper Resistance Thermometers JJG 229 | (-60~100)°C | U=0.03°C | | |
| | | | | (100~300)°C | U=0.08°C | | |
| 8 | *Environmental Testing Equipment for Temperature and Humidity Parameters | Temperature | Calibration Specification for Environmental Testing Equipment for Temperature and Humidity Parameters JJF 1101 | (-60~250)°C | U=0.4°C | | |
| | | Humidity | | 20%RH~95%RH | U=2.2%RH | | |
| 9 | *Salt mist testing chambers | Temperature | Calibration Specification for salt mist testing chambers JJF (Zhe) 1125 | (25~60)°C | U=0.4°C | | |
| | | Sedimentation rate of salt spray | | (1~2)mL/(80cm ² ·h) | U=0.3mL/(80cm ² ·h) | | |
| 10 | *Digital Temperature Indicators and Controllers | Temperature | Verification Regulation of Digital Temperature Indicators and Controllers JJG 617 | With thermocouple : (-200~1300)°C | U=0.6°C | | |
| | | | | With PT100: (-200~600)°C | U=0.4°C | | |
| 11 | *Analogue | Temperature | Verification Regulation of Analogue Temperature | With thermocouple: (-200~1300)°C | U=0.6°C | | |



| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty (k=2) | Note | Effective Date |
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| | Indicators and Controllers | | Indicators and Controllers JIG 951 | With PT100: (-200~600)°C | U=0.4°C | | |
| 12 | *Recorders for Industrial-Process Measurement | Temperature | Verification Regulation of Recorders for Industrial-Process Measurement JJG 74 | With thermocouple : (-200~1300)°C | U=0.6°C | | |
| | | | | With PT100 : (-200~600)°C | U=0.4°C | | |
| 13 | *Temperature Transmitter | Temperature | Calibration Specification of Temperature Transmitter JJF 1183 | Without sensor: (-200~1300)°C | U=0.4°C | | |
| | | | | With sensor: (-60~300)°C | U=0.08°C | | |
| 14 | *Temperature Indicators | Temperature | Calibration Specification for Temperature Indicators JJF 1664 | With thermocouple: (-200~1300)°C | U=0.6°C | | |
| | | | | With PT100: (-200~600)°C | U=0.4°C | | |
| 15 | *Electrically-heated Thermostatic Water bath | Temperature | Calibration Specification of Electrically-heated Thermostatic Water bath JJF(Liao) 118 | (0~100)°C | U=0.4°C | | |
| 16 | Thermometers of WBGT-index Meters | Temperature | Calibration Specification for Thermometers of WBGT-index Meters JJF 1407 | (5~120)°C | U=0.2°C | | |
| 17 | *Temperature Block Calibrators | Temperature | Calibration Guideline of the Temperature Block Calibrators JJF 1257 | (-60~300)°C | U=0.4°C |  | |
| | | | | (300~1100)°C | U=1.2°C | | |
| 18 | Base Metal Thermocouples | Temperature | Calibration Specification for Base Metal Thermocouples JJF 1637 | (-60~300)°C | U=0.5°C | | |
| | | | | (300~1100)°C | U=1.1°C | | |
| | *Temperature | | Calibration Specification of Temperature Indicators and | With Thermocouple Input: (-200~1800)°C | U=0.12°C | | |



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| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty (k=2) | Note | Effective Date |
|----|---|-------------|---|---|-------------------------------|------|----------------|
| | Simulators by Electrical Simulation and Measurement | | Simulators by Electrical Simulation and Measurement JJF 1309 | With RTD Input: (-200~1800)°C | U=0.12°C | | |
| | | | | With Thermocouple Output: (-200~1800)°C | U=0.12°C | | |
| | | | | With RTD Output: (-200~1800)°C | U=0.12°C | | |
| 20 | *Thermometers of Clinic Autoclave | Temperature | Calibration Specification for Thermometers of Clinic Autoclave JJF 1308 | (25~135)°C | U=0.2°C | | |
| 21 | *Box-type Resistance Furnace | Temperature | Calibration Specification for Box-type Resistance Furnace JJF1376 | (300~1100)°C | U=2.2°C | | |
| 22 | *Thermostatic Bath for Temperature Calibration | Temperature | Measurement and Test Norm of Thermostatic Baths for Temperature Calibration Metrological Characteristics JJF 1030 | Evenness:(-80~300)°C | U=0.005°C | | |
| | | | | Volatility:(-80~300)°C | U=0.006°C | | |
| 23 | Clinical Electronic Thermometer | Temperature | Verification Regulation of Clinical Electronic Thermometers JJG 1162 | (35~42)°C | U=0.1°C | | |
| 24 | Thermistor Thermometers | Temperature | Calibration Specification of Thermistor Thermometers JJF 1379 | (-50~200)°C | U=0.1°C | | |
| 25 | Sheathed Thermocouples | Temperature | Calibration Specification for Sheathed Thermocouples JJF 1262 | (-60~300)°C | U=0.5°C | | |
| | | | | (300~1100)°C | U=1.2°C | | |
| 26 | Working Copper/Copper-Nickel Thermocouple | Temperature | Verification Regulation of the Working Copper/Copper-Nickel Thermocouple JJG 368 | (-60~300)°C | U=0.5°C | | |

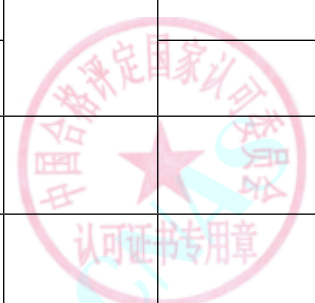


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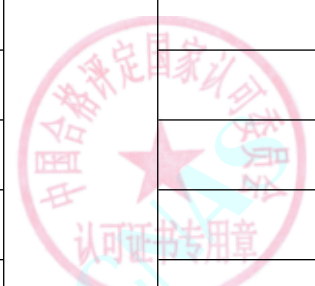
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| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty (k=2) | Note | Effective Date |
|-------------|---|-------------------------------|--|--------------------------------------|----------------------------|--|----------------|
| 27 | *Baby Incubator | Temperature | Calibration Specification for Baby Incubator JJF 1260 | (20~40)°C | U=0.26°C | | |
| | | Humidity | | (30~80)%RH | U=2.0%RH | | |
| | | Noise | | (30~100)dB | U=2.0dB | | |
| | | oxygen concentration:(20~40)% | | U=2.5% | | | |
| 28 | *Temperature and Humidity Standard Chambers | Temperature | Calibration Specification for Temperature and Humidity Standard Chambers JJF 1564 | Temperature vibration: (5~50)°C | U=0.05°C | | |
| | | | | Temperature uniformity: (5~50)°C | U=0.06°C | | |
| | | | | Temperature change rate: (0~5)°C/min | U=0.04°C/min | | |
| | | Humidity | | Humidity uniformity: (10~90)%RH | U=0.5%RH | | |
| | | | | Humidity vibration: (10~90)%RH | U=0.2%RH | | |
| | | | | Humidity change rate: (0~10)%RH/min | U=0.3%RH/min | | |
| 29 | *Vacuum Drying Chamber | Temperature | Calibration Specification for Temperature and Pressure of Vacuum Drying Chamber JJF(Su)177 | (40~135)°C | U=0.6°C | | |
| | | Pressure | | (0~600)kPa | U=0.8kPa | | |
| 30 | *Dry Block Digester | Temperature | Verification Regulation of Dry Block Digester JJG(Yue)029 | (0~250)°C | U=0.5°C |  | |
| 31 | *Ventilated Textile Oven | Temperature | Calibration Specification for Ventilated Textile Oven JJF(FZ)059 | (0~250)°C | U=1.0°C | | |
| Electrology | | | | | | | |



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| 1 | *Clamp Ammeters | ACI | Calibration Specification for Clamp Ammeters JJF 1075 | (0.04~10)A, 50Hz~ 400Hz | $U_{rel}=0.8\%$ | | |
| | | | | (10~500)A, 50Hz~ 400Hz | $U_{rel}=1.2\%$ | | |
| | | DCI | | (0.04~11)A | $U_{rel}=1.0\%$ | | |
| | | | | (11~500)A | $U_{rel}=0.6\%$ | | |
| 2 | *Amperemeters, Voltmeters, Wattmeters and Ohmmeters | DCI | Amperemeters, Voltmeters, Wattmeters and Ohmmeters JJG 124 | 10mA~10A | $U_{rel}=0.3\%$ | | |
| | | ACI | | (1~10)A, 45Hz~ 1kHz | $U_{rel}=0.3\%$ | | |
| | | ACV | | (0.01~1000)V, 50Hz~10kHz | $U_{rel}=0.3\%$ | | |
| | | DCV | | 10mV~1000V | $U_{rel}=0.3\%$ | | |
| | | AC power | | (10~1000)W | $U_{rel}=0.3\%$ | | |
| | | | | (1000~6000)W | $U_{rel}=0.3\%$ | | |
| | | DCR | | 10Ω~1MΩ | $U_{rel}=0.3\%$ | | |
| 3 | *Digital AC Electrical Parameters Meter | ACI | Calibration Specification for Digital AC Electrical Parameters Meter JJF 1491 | (1~10)A, 45Hz~ 1kHz | $U_{rel}=0.07\%$ | | |
| | | ACV | | (0.02~300)V, 50Hz~ 60Hz | $U_{rel}=0.08\%$ | | |
| | | | | (300~1000)V, 50Hz~ 60Hz | $U_{rel}=0.06\%$ | | |
| | | | | (0.01~300)V, 60Hz~ 1kHz | $U_{rel}=0.08\%$ | | |
| | | | | (300~1000)V, 60Hz~ 1kHz | $U_{rel}=0.06\%$ | | |

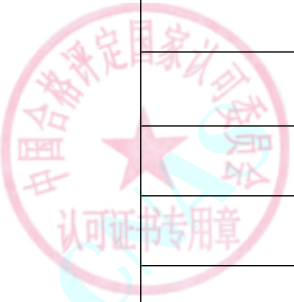


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| | | AC power | | (10~1000)W | $U_{rel}=0.10\%$ | | |
| | | | | (1000~6000)W | $U_{rel}=0.15\%$ | | |
| | | power factor | | 0.1~1 | $U=0.002$ | | |
| 4 | *DC Stabilized Power Supplies | DCV | Calibration Specification for DC Stabilized Power Supplies JJF 1597 | 100mV~1000V | $U_{rel}=0.008\%$ | | |
| | | | | 1mA~10A | $U_{rel}=0.08\%$ | | |
| | | DCI | | 10A~100A | $U_{rel}=0.03\%$ | | |
| | | | | 100A~1000A | $U_{rel}=0.3\%$ | | |
| | | CV Load Effect | | 100 μ V~10V | $U_{rel}=0.3\%$ | | |
| | | CC Load Effect | | 10 μ A~10A | $U_{rel}=0.4\%$ | | |
| 5 | *Multimeters | DCV | Calibration Specification for Multimeters JJF 1587 | 10mV~220mV | $U_{rel}=5.1 \times 10^{-5}$ | | |
| | | | | 220mV~200V | $U_{rel}=1.5 \times 10^{-5}$ | | |
| | | | | 200V~1000V | $U_{rel}=1.5 \times 10^{-5}$ | | |
| | | ACV | | 10mV~22mV , 50Hz~20kHz | $U_{rel}=0.2\%$ | | |
| | | | | 22mV~220mV , 50Hz~20kHz | $U_{rel}=0.08\%$ | | |
| | | | | 220mV~22V , 50Hz~20kHz | $U_{rel}=0.01\%$ | | |
| | | | | 22V~1000V , 50Hz~20kHz | $U_{rel}=0.022\%$ | | |
| | | | | 10mV~22mV , 20kHz~50kHz | $U_{rel}=0.3\%$ | | |

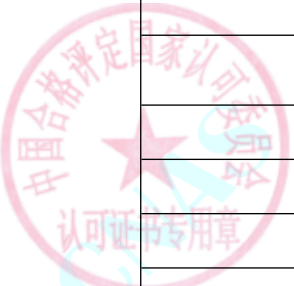


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| | | | | 22mV~220mV , 20kHz~50kHz | $U_{rel}=0.05\%$ | | |
| | | | | 220mV~220V , 20kHz~50kHz | $U_{rel}=0.01\%$ | | |
| | | | | 10mV~22 mV , 50kHz~100kHz | $U_{rel}=0.3\%$ | | |
| | | | | 22mV~220mV , 50kHz~100kHz | $U_{rel}=0.08\%$ | | |
| | | | | 220mV~2.2V , 50kHz~100kHz | $U_{rel}=0.02\%$ | | |
| | | | | 2.2V~220V , 50kHz~ 100kHz | $U_{rel}=0.03\%$ | | |
| | | | | 10mV~22mV , 100kHz~300kHz | $U_{rel}=0.4\%$ | | |
| | | | | 22mV~220mV , 100kHz~300kHz | $U_{rel}=0.19\%$ | | |
| | | | | 220mV~2.2V , 100kHz~300kHz | $U_{rel}=0.21\%$ | | |
| | | | | 2.2V~22V , 100kHz~ 300kHz | $U_{rel}=0.24\%$ | | |
| | | | | 22V~220V , 100kHz~ 300kHz | $U_{rel}=0.26\%$ | | |
| | | DCI | | 100 μ A~20mA | $U_{rel}=9.0 \times 10^{-5}$ | | |
| | | | | 20mA~200mA | $U_{rel}=6.0 \times 10^{-5}$ | | |
| | | | | 200mA~1.5A | $U_{rel}=1 \times 10^{-4}$ | | |
| | | | | 1.5A~11A | $U_{rel}=6.2 \times 10^{-4}$ | | |

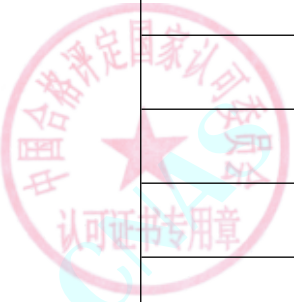


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| | | ACI | | 30 μ A ~ 220 μ A , 50Hz ~ 1kHz | $U_{rel}=0.13\%$ | | |
| | | | | 220 μ A ~ 22mA , 50Hz ~ 1kHz | $U_{rel}=0.05\%$ | | |
| | | | | 22mA ~ 220mA , 50Hz ~ 1kHz | $U_{rel}=0.04\%$ | | |
| | | | | 220mA ~ 2.2A , 50Hz ~ 1kHz | $U_{rel}=0.06\%$ | | |
| | | | | 2.2A ~ 11A , 50Hz ~ 1kHz | $U_{rel}=0.07\%$ | | |
| | | | | 10 μ A ~ 220 μ A , 1kHz ~ 5kHz | $U_{rel}=0.19\%$ | | |
| | | | | 220 μ A ~ 22mA , 1kHz ~ 5kHz | $U_{rel}=0.08\%$ | | |
| | | | | 22mA ~ 220mA , 1kHz ~ 5kHz | $U_{rel}=0.06\%$ | | |
| | | | | 220mA ~ 2.2A , 1kHz ~ 5kHz | $U_{rel}=0.1\%$ | | |
| | | | | 2.2A ~ 11A (1kHz ~ 5kHz) | $U_{rel}=0.17\%$ | | |
| | | | | 10 μ A ~ 220 μ A , 5kHz ~ 10kHz | $U_{rel}=1.2\%$ | | |
| | | | | 220 μ A ~ 22mA , 5kHz ~ 10kHz | $U_{rel}=0.5\%$ | | |
| | | | | 22mA ~ 220mA , 5kHz ~ 10kHz | $U_{rel}=0.2\%$ | | |
| | | | | 220mA ~ 11A , 5kHz ~ 10kHz | $U_{rel}=0.9\%$ | | |

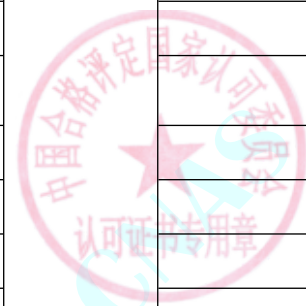


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|---------------------------------|-----------------------------|---------------------------|---|----------------------------------|-------------------------------|-------------------|----------------|
| | | DCR | | 10 Ω ~ 1M Ω | $U_{rel}=2.2 \times 10^{-5}$ | | |
| | | | | 1M Ω ~ 100M Ω | $U_{rel}=1.2 \times 10^{-4}$ | | |
| 6 | *AC Standard Current Source | ACI | Ac Standard Current Source JJG (military) 70 | (1~10)A , 45Hz~ 1kHz | $U_{rel}=0.07\%$ | | |
| | | | | (10~100)A , 45Hz~ 1kHz | $U_{rel}=0.35\%$ | | |
| 7 | *AC Standard Voltage Source | ACV | Verification Regulation of AC Standard Voltage Source JJG (military) 71 | 100mV~100V, 45Hz~ 10kHz | $U_{rel}=0.02\%$ | | |
| | | | | 100V~1000V, 45Hz~ 10kHz | $U_{rel}=0.03\%$ | | |
| 8 | *Process Calibrators | DCV (measure) | Calibration Specification for Process Calibrators JJF 1472 | 10mV~33V | $U_{rel}=0.01\%$ | | |
| | | | | (33~300) V | $U_{rel}=0.1\%$ | | |
| | | ACV (measure) | | 10mV~33V, 45Hz~ 1kHz | $U_{rel}=0.1\%$ | | |
| | | | | (33~300)V, 45Hz~ 1kHz | $U_{rel}=0.3\%$ | | |
| | | DCI (measure) | | (0.1~33)mA | $U_{rel}=0.06\%$ | | |
| | | | | (33~100)mA | $U_{rel}=0.07\%$ | | |
| | | Frequency (measure) | | 10Hz~100kHz | $U_{rel}=0.03\%$ | | |
| | | | | DCR (measure) | 0.1 Ω ~ 11k Ω | $U_{rel}=0.015\%$ | |
| | | Thermocouple (measure) | | | (11~100)k Ω | $U_{rel}=0.018\%$ | |
| | | | | Type K: (-200~1300) $^{\circ}$ C | $U=0.4^{\circ}$ C | | |
| Type T: (-100~400) $^{\circ}$ C | $U=0.4^{\circ}$ C | | | | | | |



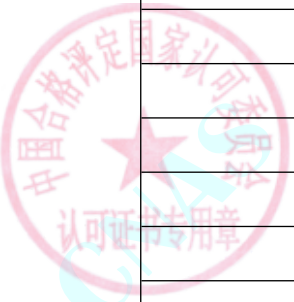
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|----|------------|-------------------------|-----------------------|-------------------------|-------------------------------|------|----------------|-------------------------|
| | | | | Type J: (-200~1200)°C | U=0.4°C | | | |
| | | | | Type E: (-200~1000)°C | U=0.4°C | | | |
| | | | | Type S: (0~1700)°C | U=0.4°C | | | |
| | | | | Type R: (0~1700)°C | U=0.4°C | | | |
| | | | | Type N: (-200~1200)°C | U=0.4°C | | | |
| | | | | (-200~100)°C | U=0.4°C | | | |
| | | | | (100~630)°C | U=0.2°C | | | |
| | | | | (630~800)°C | U=0.3°C | | | |
| | | | | DCV (output) | (0.01~10)V | | | U _{rel} =0.02% |
| | | | | | (10~100)V | | | U _{rel} =0.04% |
| | | DCI(output) | (0.1~2)mA | U _{rel} =0.06% | | | | |
| | | | (2~22)mA | U _{rel} =0.08% | | | | |
| | | Temperature (output) | Type K: (-200~1300)°C | U=0.3°C | | | | |
| | | | Type T: (-100~400)°C | U=0.3°C | | | | |
| | | | Type J: (-200~1200)°C | U=0.3°C | | | | |
| | | | Type E: (-200~1000)°C | U=0.3°C | | | | |
| | | | Type S: (0~1700)°C | U=0.4°C | | | | |
| | | | Type R: (0~1700)°C | U=0.4°C | | | | |
| | | | Type N: (-200~1200)°C | U=0.3°C | | | | |

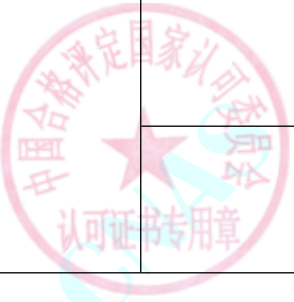


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|----|--|------------------------|--------------------------|---------------------------------|-----------------------------------|------|----------------|
| | | | | (-200~100)°C | $U=0.3^{\circ}\text{C}$ | | |
| | | | | (100~630)°C | $U=0.2^{\circ}\text{C}$ | | |
| | | | | (630~800)°C | $U=0.3^{\circ}\text{C}$ | | |
| | | (0.1~200) Ω | | $U_{\text{rel}}=0.04\%$ | | | |
| | | (0.2~10)k Ω | | $U_{\text{rel}}=0.1\%$ | | | |
| | | DCR(output) | | | | | |
| RF | | | | | | | |
| 1 | *Signal Generator | Frequency | Signal Generator JJF1931 | 0.5MHz~26.5GHz | $U_{\text{rel}}=8 \times 10^{-8}$ | | |
| | | Power | | (-70~10)dBm , 10MHz~26.5GHz | $U=0.35\text{dB}$ | | |
| | | | | (-100~70)dBm , 10MHz~26.5GHz | $U=0.4\text{dB}$ | | |
| | | Harmonic | | (-100~-25)dBc , 10MHz~3GHz | $U=1.3 \text{ dB}$ | | |
| | | | | (-100~-25)dBc , 3GHz~13.2GHz | $U=2.0\text{dB}$ | | |
| AM | 5%~90% (carrier frequency: 300kHz~10MHz, Modulation frequency: 1kHz) | $U_{\text{rel}}=1.0\%$ | | | | | |
| | 5%~90% (carrier frequency: 10MHz ~3GHz , Modulation frequency: 1kHz) | $U_{\text{rel}}=2.0\%$ | | | | | |



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| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty (k=2) | Note | Effective Date |
|-----------|---|------------------|---|--|-------------------------------|------|----------------|
| | | | ilac-MRA CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT SCHEDULE OF ACCREDITATION CERTIFICATE | 5%~90% (carrier frequency: 3GHz ~ 26.5GHz, Modulation frequency: 1kHz) | $U_{rel}=5.2\%$ | | |
| | | FM | | 1kHz~100kHz (carrier frequency: 10MHz~26.5GHz, Modulation frequency: 1kHz) | $U_{rel}=1.5\%$ | | |
| 2 | *Digital Storage Oscilloscope | Amplitude | Calibration Specification for Digital Storage Oscilloscope JJF 1057 | 10mV~200V | $U_{rel}=1\%$ | | |
| | | Scan time factor | | 1ns/div~5s/div | $U_{rel}=9 \times 10^{-6}$ | | |
| | | 频带宽度 | | 50kHz~1GHz | $U_{rel}=5\%$ | | |
| | | 上升时间 | | 100ps~10ns | $U_{rel}=7\%$ | | |
| 3 | *Analogue Oscilloscope | Amplitude | Analogue Oscilloscope JJG 262 | 10mV~200V | $U_{rel}=1\%$ | | |
| | | Scan time factor | | 1ns/div~5s/div | $U_{rel}=0.9\%$ | | |
| | | Bandwidth | | 50kHz~500MHz | $U_{rel}=5\%$ | | |
| | | Rise Time | | 700ps~7ns | $U_{rel}=7\%$ | | |
| Mechanics | | | | | | | |
| 1 | *Pressure Regulators with Bourdon Tube Pressure Gauge | Pressure | Calibration Specification for Pressure Regulators with Bourdon Tube Pressure Gauge JJF 1328 | (0~25)MPa | $U=0.6\%FS$ | | |



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| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty (k=2) | Note | Effective Date |
|----|--|-----------|---|--------------|-------------------------------|------|----------------|
| 2 | *Elastic Element Pressure Gauges, Pressure-Vacuum Gauges and Vacuum Gauges for General Use | Pressure | Verification Regulation of Elastic Element Pressure Gauges, Pressure-Vacuum Gauges and Vacuum Gauges for General Use JJG 52 | (-0.1~60)MPa | U=0.3%FS | | |
| 3 | *Elastic Element Precise Pressure Gauges and Vacuum Gauges | Pressure | Verification Regulation of Elastic Element Precise Pressure Gauges and Vacuum Gauges JJG 49 | (-0.1~60)MPa | U=0.08%FS | | |
| 4 | *Record Pressure Gauges, Pressure Vacuum Gauges and Vacuum Gauges | Pressure | Verification Regulation of Record Pressure Gauges, Pressure Vacuum Gauges and Vacuum Gauges JJG 926 | (-0.1~60)MPa | U=0.4%FS | | |
| 5 | *Pressure Controllers | Pressure | Verification Regulation of Pressure Controllers JJG 544 | (-0.1~60)MPa | U=0.20%FS | | |
| 6 | Precision Liquid Manometer for Cistern and U-tube | Pressure | Verification Regulation of Precision Liquid Manometer for Cistern and U-tube JJG 241 | (-5~5)kPa | U=0.4%FS | | |
| 7 | *Liquid Manometers for Working | Pressure | Verification Regulation of Liquid Manometers for Working JJG 540 | (0~20)kPa | U=0.3%FS | | |
| 8 | *Pressure Transducer(Static) | Pressure | Verification Regulation of Pressure Transducer(Static) JJG 860 | (-0.1~60)MPa | U=0.10%FS | | |
| 9 | *Digital Pressure Gauges | Pressure | Verification Regulation of Digital Pressure Gauges JJG 875 | (-0.1~60)MPa | U=0.08%FS | | |



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| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty ($k=2$) | Note | Effective Date |
|----|---|-----------|---|---------------|-----------------------------------|------|----------------|
| 10 | *Pressure Transmitters | Pressure | Verification Regulation of Pressure Transmitters JJG 882 | (-0.1~60)MPa | $U=0.10\%FS$ | | |
| 11 | *Tyre Pressure Gauges | Pressure | Verification Regulation of Tyre Pressure Gauges JJG 927 | (0~2.5)MPa | $U=0.5\%FS$ | | |
| 12 | *Pointer Type Micro-differential Pressure Gauge | Pressure | Verification Regulation of Pointer Type Micro-differential Pressure Gauge JJG(YUE)020 | (-30~30)kPa | $U=0.6\%FS$ | | |
| 13 | *Pressure Type SF6 Gas Density Monitors | Pressure | Verification Regulation of Pressure Type SF6 Gas Density Monitors JJG 1073 | (-0.1~0.9)MPa | $U=0.3\%FS$ | | |
| 14 | *Torque Wrenches | Torque | Verification Regulation of Torque Wrenches JJG 707 | (0.4~2000)Nm | $U_{rel}=0.6\%$ | | |
| 15 | *Electric and Pneumatic Torque Wrenches | Torque | Calibration Specification for Electric and Pneumatic Torque Wrenches JJF 1610 | (2~50)Nm | $U_{rel}=1.2\%$ | | |
| 16 | *Electronic Balances | Mass | Calibration Specification for Electronic Balances JJF 1847 | 1mg~100g | $U=(0.12~0.65)mg$ | | |
| | | | | 100g~1kg | $U=(0.65~8)mg$ | | |
| | | | | (1~10)kg | $U=(8~72)mg$ | | |
| | | | | (10~55)kg | $U=72mg~0.22g$ | | |
| 17 | *Torsion Balance | Mass | Verification Regulation of Torsion Balance JJG 46 | (1~2500)mg | $U=(0.30~1.5)mg$ | | |
| 18 | *Table Balances | Mass | Verification Regulation of Table Balances JJG 156 | 10g~200g | $U=0.03g$ | | |
| | | | | 200g~2kg | $U=(0.03~0.6)g$ | | |
| | | | | (2~20)kg | $U=(0.6~6)g$ | | |

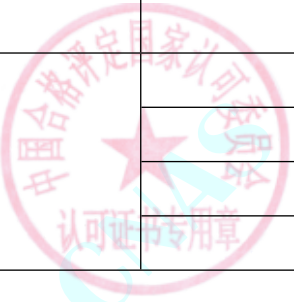


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| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty (k=2) | Note | Effective Date |
|----|---|-----------|--|-------------|----------------------------|------|----------------|
| 19 | *Non-self-indicating Weighing Instruments | Mass | Verification Regulation of Non-self-indicating Weighing Instruments JJG 14 | 100g~10kg | U=2.4g | | |
| | | | | (10~50)kg | U=(2.4~3.2)g | | |
| | | | | (50~100)kg | U=(3~6)g | | |
| | | | | (100~300)kg | U=(6~32)g | | |
| 20 | *Analogue Indicating Weighing Instruments | Mass | Verification Regulation of Analogue Indicating Weighing Instruments JJG 13 | 100g~10kg | U=2.4g | | |
| | | | | (10~50)kg | U=(2.4~3.2)g | | |
| | | | | (50~100)kg | U=(3~6)g | | |
| | | | | (100~150)kg | U=(6~29)g | | |
| 21 | *Digital Indicating Weighing Instruments | Mass | Verification Regulation of Digital Indicating Weighing Instruments JJG 539 | 200g~10kg | U=2.4g | | |
| | | | | (10~50)kg | U=(2.4~3.2)g | | |
| | | | | (50~100)kg | U=(3~6)g | | |
| | | | | (100~300)kg | U=(6~32)g | | |
| 22 | *Taking Blood Electronic Scales | Mass | Verification Regulation of Taking Blood Electronic Scales JJG 815 | 2g~1000g | U=(0.10~0.29)g | | |
| 23 | *Mass Comparators | Mass | Calibration Specification for Mass Comparators JJF 1326 | 1mg~100gv | U=(0.11~0.6)mg | | |
| | | | | 100g~1kg | U=(0.6~6)mg | | |
| | | | | (1~10)kg | U=(6~61)mg | | |
| | | | | (10~55)kg | U=61mg~0.18g | | |



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| No | Instrument | Measurand | Calibration Method | Range | Expanded Uncertainty (k=2) | Note | Effective Date |
|-----------|--|---------------|---|------------------------------------|-------------------------------|------|----------------|
| 24 | *Table Torsion Balance | Mass | Verification Regulation of Table Torsion Balance JJG 1130 | 1mg~100g | $U=(1.2\sim 2.9)mg$ | | |
| Chemistry | | | | | | | |
| 1 | **Alarmer Detectors of Combustible Gas | Concentration | Verification Regulation of Alarmer Detectors of Combustible Gas JJG 693 | CH ₄ :(10~60)%LEL | $U_{rel}=2.4\%$ | | |
| 2 | *Sulfur Hydrogen Gas Detectors | Concentration | Verification Regulation of Sulfur Hydrogen Gas Detectors JJG 695 | H ₂ S:(0.1~100)umol/mol | $U_{rel}=2.1\%$ | | |
| 3 | *Electrochemical Oxygen Meter | Concentration | Verification Regulation of Electrochemical Oxygen Meter JJG 365 | (0.1~25)% | $U_{rel}=1.3\%$ | | |
| 4 | *Carbon Monoxide Detectors | Concentration | Verification Regulation of Carbon Monoxide Detectors JJG 915 | CO:(75~700)umol/mol | $U_{rel}=2.5\%$ | | |
| 5 | *Carbon Monoxide Detectors | Concentration | Verification Regulation of Ammonia Gas Detectors JJG 1105 | (0.1~100)umol/mol | $U_{rel}=2.2\%$ | | |
| 6 | *Carbon Dioxide Infrared Gas Analyzer | Concentration | Verification Regulation of Carbon Monoxide and Carbon Dioxide Infrared Gas Analyzer JJG 635 | CO ₂ : (0.1~0.5) % | $U_{rel}=1.2\%$ | | |



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