Name: Suzhou LECC Testing Technology Co., Ltd.

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Registration No. CNAS L6215

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

Effective Date: 2023-12-12 Expiry Date: 2028-05-22

SCHEDULE 5 ACCREDITED CALIBRATION AND MEASUREMENT CAPABILITY SCOPE

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

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
Geometric Sense							
1	*Extensometer	Length	V.R.for Extensometer JJG762	(0～0.3)mm	U=0.6 μm		
				(＞0.3～25)mm	U_{rel}=0.5%		
2	Level Rules	Angle	C.S.for Level Rules JJF1085	（0.5～10)mm/m	U_{rel}=6.8%		
3	Roughness Comparison Specimens	Roughness	C.S.of Roughness Comparison Specimens JJF1099	Ra:(0.1～10.0) μm	U_{rel}=7%		
4	Standard Ring Gauge	Length	V.R.of Standard Ring Gauge JJG894	D:(3～10)mm	U=0.8 μm		
				D:(＞10～50)mm	U=0.9 μm		
				D:(＞50～100)mm	U=1.0 μm		
				D:(＞100～200)mm	U=1.6 μm		

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
5	Wedge-Shape Filler Gauges	Length	C.S.for Wedge-Shape Filler Gauges JJF1548	Model II:(0～15)mm	U=14 μ m		
				Model I:(0～60)mm	U=11 μ m		
6	*Biological Microscopes	Length	C.S.for Biological Microscopes JJF1402	(0～1)mm	U=2 μ m		
				Objective:(5～100)×	U_{rel}=0.8%		
7	Tape forMeasuring Circumference andDiameter of Flexible Part	Length	V.R.of Tape for Measuring Circumference and Diameter of Flexible Part JJG670	(0～1000)mm	U=0.1mm		
				(＞1000～2000)mm	U=0.2mm		
8	Dial Test Indicator	Length	V.R.of Dial Test Indicator JJG35	Graduation value/Resolution 0.001mm:(0～0.14)mm	U=0.7 μ m		
				Graduation value/Resolution 0.002mm:(0～0.4)mm	U=1.3 μ m		
				Resolution 0.01mm:(0～1)mm	U=10 μ m		
				Graduation value 0.01mm:(0～1)mm	U=4 μ m		
9	Screw Templates	Length	V.R.of Screw Templates JJG60	P:(0.4～10)mm	U=2.5μm		
		Angle		（55～60)°	U=4′		
10	Comparators of Machine Type	Length	V.R.of Comparators of Machine Type JJG39	Graduation value0.5 μ m：(-25～+25) μ m	U=0.1 μ m		
				Graduation value1 μ m：(-100～+100) μ m	U=0.3 μ m		
				Graduation value10 μ m：(-500～+500) μ m	U=2 μ m		

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11	Microcator	Length	V.R.of Microcator JJG118	Graduation value0.5 μm：(-30～+30) μm	U=0.06 μm		
				Graduation value1 μm：(-100～+100) μm	U=0.11 μm		
				Graduation value2 μm：(-100～+100) μm	U=0.3 μm		
				Graduation value5 μm：(-150～+150) μm	U=0.6 μm		
12	*Current Calipers	Length	V.R.of Current Calipers JJG30	(0～500)mm	U=0.01mm		
				(＞500～1000)mm	U=0.02mm		
				(＞1000～2000)mm	U=0.03mm		
13	*height caliper	Length	V.R.of Height Caliper JJG31	(0～300)mm	U=0.01mm		
				(＞300～1000)mm	U=0.02mm		
				(＞1000～2000)mm	U=0.04mm		
14	*micrometer	Length	V.R.of Micrometer JJG21	Outside Micrometer:(0～50)mm	U=0.7 μm		
				Outside Micrometer:(50～100)mm	U=1 μm		
				Outside Micrometer:(100～500)mm	U=2 μm		
				Check Quantity Rods:(25～475)mm	U=0.5 μm+2×10^{-6}L		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				Wall Thickness or Plate Thickness Micrometer:(0～25)mm	U=2 μ m		
15	Depth micrometer	Length	V.R.of Depth Micrometers JJG24	(0～100)mm	U=1.3 μ m		
				(＞100～300)mm	U=1.7 μ m		
16	Micrometers with Dial Comparator and Indication Snap Gauge	Length	V.R.of Micrometers with Dial Comparator and Indication Snap Gauge JJG26	Micrometers with Dial Comparator:(0～50)mm	U=0.6 μ m		
				Micrometers with Dial Comparator:(50～100)mm	U=0.9 μ m		
				Micrometers with Snap Gauge :(0～100)mm	U=0.6 μ m		
17	Internal measuring micrometer	Length	C.S.for Micrometers of Measuring Inside Dimension JJF1411	Internal Measuring Micrometer:(5～50)mm	U=2 μ m		
				Internal Measuring Micrometer:(50～100)mm	U=3 μ m		
				Internal Measuring Micrometer:(100～200)mm	U=4 μ m		
				Three-Point Inside Micrometer:(3～100)mm	U=1 μ m		
				Three-Point Inside Micrometer:(100～200)mm	U=2 μ m		
				Three-Point Inside Micrometer:(200～300)mm	U=3 μ m		

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18	*Common Normal Micrometer	Length	V.R.of Common Normal Micrometer JJG82	(0～50)mm	U=1 μ m		
				(50～200)mm	U=2 μ m		
19	*Micrometers with Gauge	Length	V.R.of Micrometers with Gauge JJG427	(0～100)mm	U=1 μ m		
20	Screw Thread Micrometers	Length	V.R.of Screw Thread Micrometers JJG25	(0～50)mm	U=4 μ m		
21	Micrometers with Prismatically Arranged Measuring Faces	Length	V.R.of Micrometers with Prismatically Arranged Measuring Faces JJG182	(1～80)mm	U=1.3 μ m		
22	*Large Dimension Outside Micrometers	Length	C.S.for Large Dimension Outside Micrometers JJF1088	(500～2000)mm	U=1 μ m+5×$10^{-6}L$		
				Check Quantity Rods:(525～2000)mm	U=0.5 μ m+2×$10^{-6}L$		
23	Wooden Rule(Wooden Folded Rule)	Length	V.R.of Wooden Rule(Wooden Folded Rule) JJG2	(0～3000)mm	U=0.2mm		
24	Steel Rule	Length	V.R.of Steel Rule JJG1	(0～1000)mm	U=0.05mm		
				(＞1000～1500)mm	U=0.08mm		
				(＞1500～2000)mm	U=0.10mm		
25	Steel Measuring Tape	Length	V.R.of Steel Measuring Tape JJG4	(0～100)m	U=0.1mm+2×$10^{-4}L$		
26	Feeler Gauges	Length	V.R.of Feeler Gauges JJG62	(0.02～0.3)mm	U=2 μ m		
				(＞0.3～3)mm	U=3 μ m		
27	Gear Tooth Calipers	Length	C.S.for Gear Tooth Calipers JJF1072	M::(1～50)mm	U=0.01mm		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
28	Straight Edges	Length	C.S.for Straight Edges JJF1097	(300～6300)mm	U=0.3 μm+$10^{-6}L$		
29	Pi Tapes	Length	C.S.for Pi Tapes JJF1423	D:9mm～16m	U=0.01mm+2×$10^{-5}D$		
30	Fiber Tapes And Measuring Ropes	Length	V.R.of Fiber Tapes And Measuring Ropes JJG5	(0～200)m	U=0.2mm+1.3×$10^{-4}L$		
31	General Bevel Protractors	Angle	C.S.for General Bevel Protractors JJF1959	Graduation Value2′ :(0～320)°	U=2′		
				Graduation Value5′ :(0～360)°	U=5′		
32	square	Verticality	V.R.of Squares JJG7	Cylindrical square$H$:(0～600)mm	U=0.8 μm+4×$10^{-6}H$		
				Knife edge Square$H$:(0～200)mm	U=0.8 μm+$10^{-6}H$		
				Rectangular square$H$:(0～200)mm	U=0.5 μm+$10^{-6}H$		
				Wide-Seated square$H$:(0～600)mm	U=0.8 μm+4×$10^{-6}H$		
				Triangular square$H$:(0～600)mm	U=0.8 μm+4×$10^{-6}H$		
				Linear square$H$:(0～600)mm	U=0.05mm		
		Length		Linear square:(0～600)mm	U=0.10mm		
33	Square Gauge	Perpendicularity	V.R.of Square Gauge JJG1046	H:(100～630)mm	U=0.8 μm+4×$10^{-6}H$		
34	*Box Plate	Parallelism	V.R.of Box Plate JJG194	H:(100～400)mm	U=2 μm		
35	Straight Edge	straightness	V.R.of Straight Edge JJG63	(75～300)mm	U=0.5 μm+2×$10^{-6}L$		
36	Callipers for Welding	Angle	V.R.of Callipers for Welding Inspection JJG704	(0～90)°	U=8′		

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	Inspection	Length		(0～60)mm	U=0.03mm		
37	Dial Gauges(dial and digital)	Length	V.R.of Dial Gauges(dial and digital) JJG34	Graduation value0.01mm:(0～5)mm	U=4 μ m		
				Graduation value0.01mm:(0～10)mm	U=5 μ m		
				Resolution 0.01mm:(0～10)mm	U=10 μ m		
				Graduation value0.001mm:(0～5)mm	U=2 μ m		
				Resolution 0.001mm:(0～5)mm	U=2 μ m		
				Resolution 0.001mm:(0～10)mm	U=3 μ m		
38	Wide Range Dial Gauges	Length	V.R.of Wide Range Dauges Reading in 0.01mm JJG379	Graduation value0.01mm:(0～30)mm	U=7 μ m		
				Graduation value0.01mm:(0～50)mm	U=10 μ m		
				Resolution 0.01mm:(0～100)mm	U=10 μ m		
39	*Thickness Gauge	Length	C.S.for Thickness Gauges JJF1255	Graduation value0.1mm:(0～30)mm	U=0.02mm		
				Graduation value0.01mm:(0～30)mm	U=6 μ m		
				Graduation value0.002mm:(0～10)mm	U=3 μ m		
				Graduation value0.001mm:(0～1)mm	U=2 μ m		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				Resolution 0.01mm:(0～30)mm	U=10 μ m		
				Resolution 0.001mm:(0～30)mm	U=3 μ m		
40	Depth Dial Gauge	Length	V.R.of Depth Gauge Reading in 0.01mm JJG830	Graduation value0.001mm:(0～30)mm	U=2.3 μ m		
				Graduation value0.01mm:(0～100)mm	U=6 μ m		
				Resolution 0.001mm:(0～50)mm	U=2 μ m		
				Resolution 0.01mm:(0～100)mm	U=0.01mm		
41	Bore Dial Indicator	Length	C.S.for Bore Dial Indicators JJF1102	Graduation value0.01mm:(2～18)mm	U=4 μ m		
				Graduation value0.01mm:(18～50)mm	U=6 μ m		
				Graduation value0.01mm:(50～450)mm	U=8 μ m		
				Graduation value0.001mm:(10～400)mm	U=2 μ m		
42	*Snap Gauge Reading in 0.01mm	Length	V.R.of Snap Gauges Reading in 0.01mm JJG109	(0～100)mm	U=3 μ m		
				(＞100～200)mm	U=4 μ m		
43	Dial Snap Gauges	Length	C.S.for Dial Snap Gauges JJF1253	Span:(5～100)mm	U=5 μ m		

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44	Ridius Gauge	Length	V.R.of Radius Gauges JJG58	R:(1～10)mm	U=4μm		
				R:(＞10～25)mm	U=8μm		
45	Cylindrical thread Gauges	Length	C.S.for Cylindrical Thread Gauges JJF1345	Plug Gauge :M(1～300)mm	U=3.0 μ m		
				Ring Gauge :M(2.5～300)mm	U=4.0 μ m		
				Pitch:(0.2～6.35)mm	U=1.5 μ m		
		Angle		Lateral angle of tooth:(0～30)°	U=2.2′		
46	Gauge Blocks	Length	V.R.of Gauge Blocks JJG146	(0.5～100)mm	U=0.15 μ m +1.5×$10^{-6}l_n$		
				(＞100～500)mm	U=0.38 μ m +3.8×$10^{-6}l_n$		
47	Plain Limit Gauges	Length	V.R.of Plain Limit Gauges JJG343	External Dimension: (1～100)mm	U=1.0 μ m		
				External Dimension:(＞100～260)mm	U=1.2 μ m		
				Inside Dimension :(3～50)mm	U=1.0 μ m		
				inside dimension :(＞50～150)mm	U=1.3 μ m		
				inside dimension: (＞150～200)mm	U=1.5 μ m		
48	Cylindrical Measuring Pin	Length	C.S.for Cylindrical Measuring Pin JJF1207	three-wire Set: Φ(0.118～6.585)mm	U=0.3 μ m		
				Pin Gage: Φ(0.1～25)mm	U=0.5 μ m		
49	*Height Measuring Instrument with	Length	C.S.for Height Measuring Instrument with Digital	(0～400)mm	U=1.0 μ m		

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	Digital Display		Display JJF1254	(＞400～600)mm	U=1.2 μ m		
				(＞600～1000)mm	U=1.8 μ m		
50	*Coordinate Measuring Machines	Length	C.S.for Coordinate Measuring Machines JJF1064	(0～1500)mm	U=0.8 μ m +2.2×$10^{-6}L$		
				(＞1.5～8)m	U=2 μ m +1×$10^{-6}L$		
				Detection error: Φ25mm	U=0.2 μ m		
51	*Imaging Probe Measuring Machines	Length	C.S.for Imaging Probe Measuring Machines JJF1318	X、Y Axis:(0～500)mm	U=1.2μm+1.8×$10^{-6}l_n$;		
				X、Y Axis：(＞500～1000)mm	U=0.5μm+2.8×$10^{-6}l_n$		
				Z Axis::(0～200)mm	U=1.8μm		
52	*Contact(Stylus) Instruments of Surface Roughness Measurement	Roughness	C.S.for Contact(Stylus) Instruments of Surface Roughness Measurement by Profile Method JJF1105	Ra:(0.02～10) μ m	U_{rel}=7%		
53	*Surface Plates	Length	V.R.of Surface Plates JJG117	(100×100～400×400)mm	U=1.0μm		
				(＞400×400～800×600)mm	U=1.7μm		
				(＞800×600～1600×1000)mm	U=2.5μm		
				(＞1600×1000～2500×1600)mm	U=4.5μm		
				(＞2500×1600～5000×3000)mm	U=13um		
54	*Projectors	Length	C.S.for Projectors JJF1093	(0～500)mm	U=1.2μm+1.8×$10^{-6}L$		
		Angle		(0～360)°	U=2′		

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55	*Toolmaker's Microscope	Length	V.R.of Toolmaker's Microscope JJG56	(0～200)mm	U=1.0μm		
56	*Measuring Microscope	Length	V.R.of Reading Microscope and Measuring Microscope JJG571	Graduation value0.01mm:(0～50)mm	U=3 μ m		
				Graduation value0.001mm:(0～50)mm	U=1.6 μ m		
57	*Metallographic Microscope	Length	C.S for Metallurgical Microscopes JJF1914	(0～1)mm	U=1.2 μ m		
		Zoom time		Objective:(5～100)×	U_{rel}=4%		
58	*Length Measuring Instrument	Length	C.S.for Length Measuring Instrument JJF1189	(0～100)mm	U=0.2μm+2×10^{-6}l_n		
				(>100～400)mm	U=0.6μm+3×10^{-6}l_n		
59	*Optimeter	Length	V.R.of Optimeter JJG45	(-100～+100)μm	U=0.07μm		
60	Frame Levels and Shaft Levels	Angle	C.S.for Frame Levels and Shaft Levels JJF1084	Graduation value:(0.02～0.10)mm/m	U_{rel}=6.8%		
61	Fineness of Grind Gage	Length	V.R.of Fineness of Grind Gage JJG905	(0～150) μ m	U=0.5μm		
62	*Measurement Standard In-strument of Roundness and Cylindricity	Roundness	V.R.of Measurement Standard In-strument of Roundness and Cylindricity JJG429	Roundness Measuring Instrument:(1.40～18.22) μ m	U_{rel}=6%		
				Cylindricity Meter:(ϕ 75 ×300)mm	U_{rel}=6%		
63	*X-Ray Fluorescence Coating Thickness Instruments	Length	C.S.for X-Ray Fluorescence Coating Thickness Instruments JJF1306	(0～20)μm	U_{rel}=7%		

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64	*Articulated Arm Coordinate Measuring Machines	Length	C.S.for Articulated Arm Coordinate Measuring Machines JJF1408	(0～3)m	U=5 μ m +5×$10^{-6}L$		
65	*Contact(Stylus) Surface Contour Tester	Length	C.S.for Contact(Stylus) Surface Contour Tester JJF(Min)1043	(0～50)mm	U=1.7μm		
				(>50～100)mm	U=1.8μm		
66	*Elongation tester	Length	Verification procedure for test equipment of enamelled winding wire Part3:Elongation tester JB/T4279.3	(0.1～60)%	U_{rel}=0.3%		
67	*Alterable Compression Thickness Tester	Length	V.R.of Alterable Compression Thickness Tester JJG(LI)50.3	(0～3)mm	U=4 μ m		
68	Tester for Dial Indicator Gauges	Length	V.R.of Tester for Dial Indicator Gauges JJG201	(0～50)mm	U=0.6μm		
69	*Cable Length Meter	Length	V.R.of Cable Length Meter JJG987	(0.1～10000)m	U_{rel}=0.15%		
70	Test Sieves	Length	C.S.for Test Sieves JJF1175	(0.02～5)mm	U=5 μ m		
				(>5～125)mm	U=0.03mm		
71	*Ulrasonic ThicknessInstrument	Length	C.S.for Ulrasonic ThicknessInstrument JJF1126	H:(0.5～200)mm	U=0.02mm +1×$10^{-3}H$		
72	*Pneumatic Measuring Instru-ment for micrometers	Length	V.R.of Pneumatic Measuring Instru-ment for micrometers JJG356	(-80～+80) μ m	U=0.4 μ m		
73	*Concentricity Testers	Length	C.S.for Concentricity Testers JJF1109	(0～1000)mm	U=1.7 μ m		

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74	*Thickness gauge	Length	V.R.of Magnetic and Eddy Current Measuring Instrument for Coating Thickness JJG818	H:(10.1～2000) μm	U=0.3 μm +6×10^{-3}H	No Detect : A class	
				Film Thickness$H$:(0～50) μm	U=0.5 μm		
				Film Thickness$H$:(＞50～20000) μm	U_{rel}=1%		
75	*Drop test machine for cement sacks	Length	V.R.of Drop test machine for Packages JJG(yue)045	(0～2000)mm	U=0.7mm		
76	*Digital Step Gauge	Length	C.S.for Digital Step Gauge JJF(Zhe)1130	(-50～+50)mm	U=0.01mm		
77	Paint film scriber	Length	C.S.for Paint film scriber JJF(Wan)53	Blade Spacing:(1～3)mm	U=3 μm		
78	*Solder Ppaste Thickness Gauge	Length	C.S.for Solder Ppaste Thickness Gauge JJF(Su)191	(20～400) μm	U_{rel}=4.2%		
79	*Stereomicroscope	Length	C.S.for Stereomicroscope JJF(Min)1063	Objective:(0.5～8)x	U_{rel}=1.5%		
80	Internal Micrometers	Length	V.R. of Internal Micrometers JJG22	(50～2000)mm	U=2.0 μm +5×10^{-6}L		
81	*Linear Displaycement Sensors	Length	C.S.for Linear Displaycement Sensors JJF1305	Inductance Type:(0.5～600)mm	U_{rel}=0.1%	Accredited only for Inductance Type、Stayguy (Guyrope) Type	
				Stayguy (Guyrope) Type:(20～500)mm	U_{rel}=0.15%		

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82	Gauges for Measuring Distance between Inside Rim Faces of Wheels of Railway Locomotives and Vehicles	Length	V.R. of Gauges for Measuring Distance between Inside Rim Faces of Wheels of Railway Locomotives and Vehicles JJG1153	(1345～1365)mm	U=0.05mm		
83	Wet Film Thickness Gauges	Length	C.S.for Wet Film Thickness Gauges JJF1484	Comb Gauge:(5～100) μm	U=1.2 μm		
				Comb Gauge:(＞100～3000) μm	U_{rel}=1.7%		
				Wheel Gauge:(0～50) μm	U=1 μm		
				Wheel Gauge:(＞50～125) μm	U=2 μm		
				Wheel Gauge:(＞125～250) μm	U=3 μm		
				Wheel Gauge:(＞250～1500) μm	U=6 μm		
84	*Projectors for Detecting The Notch of Test Sample	Radius	C.S.for Projectors for Detecting The Notch of Test Sample JJF(Zhe)1133	(0～15)mm	U=5 μm		
		Angle		(0～90)°	U=2′		
		Magnification		Objective:(1～60)X	U_{rel}=0.34%		
		Length		(0～50)mm	U=1.0 μm +5×10^{-6}L		
85	*Tool Presettting and Measuring Instruments	Length	V.R. of Tool Presettting and Measuring Instruments JJG938	(0～1000)mm	U=5 μm +2.2×10^{-5}L		

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86	Wedge-feet Calibrator for Micrometers	Length	V.R. of Wedge-feet Calibrator for Micrometers JJG 525	Graduation value1 μm:(0～400) μm	U=0.3 μm		
87	Coating Flexibility Testers	Length	C.S.for Coating Flexibility Testers JJF(Petrochemical)006	Diameter:(4～15)mm	U=8 μm		
		Length		Thickness:(1～3)mm	U=0.04mm		
88	Digital Display Wide Range Dauges Reading in 0.001mm	Length	V.R.of Digital Display Wide Range Dauges Reading in 0.001mm JJG(JI)135	Resolution 0.001mm:(0～50)mm	U=2 μm		
				Resolution 0.005mm:(0～50)mm	U=4 μm		
89	Combined Type Angle Rules	Length	C.S.for Combined Type Angle Rules JJF1132	(0～300)mm	U=0.05mm		
		Angle		(0～180)°	U=4′		
90	Straight Cylindrical Involute Spline Gauges	Length	C.S.for Straight Cylindrical Involute Spline Gauges JJF1557	Plug Gauge Tooth Thickness:(10～180)mm	U=0.6 μm+5×10^{-6}L	Accredited only for plug guage tooth thickness, major diameter	
91	*Point Outside Micrometer	Length	C.S.for Point Outside Micrometers JJF(zhe)1045	(0～150)mm	U=1 μm+4×10^{-6}L		
92	*Blade Micrometer	Length	C.S.for Blade Micrometer JJF(zhe)1090	(0～200)mm	U=1 μm+4×10^{-6}L		
93	*Surface Profile Gauge	Length	C.S.for Surface Profile Gauges JJF 1476	(0～6.5)mm	U=1.7 μm		
94	Hand-held Laser Distance Meter	Length	V.R.of Hand-held Laser Distance Meters JJG 966	D:(0～50)m	U=1.7mm+1.7×10^{-5}D		
95	Terrstrial Laser Scanner	Length	C.S.for Terrstrial Laser Scanners JJF 1406	(0～800)mm	U=0.01mm		
96	Conductor Percentage Elongation	Length	V.R.of Conductor Percentage Elongation Instruments	(1～300)mm	U_{rel}=0.3%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
	Elongation Instrument	Speed	JJG(yue)005	(0～7)mm/s	U=0.2mm/s		
		Elongation		(0.1～100)%	U=0.5%		
97	*Instrument for measuring contact angel with image method	Angle	C.S.for Instrument for measuring contact angel with image methods JJF(su)219	(6～180)°	U=0.3°		
98	*Center Distance Calipers	Length	C.S.for Center Distance Calipers JJF(ji)180	(0～500)mm	U=0.02mm		
				(＞500～1000)mm	U=0.05mm		
				(＞1000～2000)mm	U=0.06mm		
99	Blocks used in Ultrasonic Testing	Length	C.S.for Blocks used in Ultrasonic Testing JJF 1487	(0～500)mm	U=10 μm		
		Form and position error		(0～500)mm	U=10 μm		
100	*Mould	Length	C. S. for Moulds JJF 1307	(0～500)mm	U=0.05mm		
101	Instruments of Thread Inspection of Casing，Tubing，Line Pipe and New Rotary Shouldered Connection	Length	C.S. for Instruments of Thread Inspection of Casing，Tubing，Line Pipe and New Rotary Shouldered Connection JJF 1063	(0～150)mm	U=5 μm		
102	*Length Measuring Machine	Length	Calibration Specification for Length Measuring Maching JJF 1066	Micron Scale:(-100～+100) μm	U=0.1 μm		
				MM scale:(0～100)mm	U=1.0 μm		
				Decimeter Scale:(0～3000)mm	U=0.5 μm+2×10^{-6}L		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
103	Track Gages for Standard Gauge Railway	Length	V.R of Track Gage for Standard Gauge Railway JJG 219	Gauge Gauge:(1410～1470)mm	U=0.1mm		
				Check Interval:(1381～1401)mm	U=0.1mm		
				Backrest Distance:(1338～1358)mm	U=0.1mm		
104	Measuring Instrument for Wheel-Diameter of Railway Locomotives and Vehicles.Part 2:Measuring Tools for Wheel-Diameter	Length	V.R of Measuring Instrument for Wheel-Diameter of Railway Locomotives and Vehicles.Part 2:Measuring Tools for Wheel-Diameter JJG 1081.2	(760～860)mm	U=0.15mm		
105	*Railway Switch Offset Rules	Length	V.R of Railway Switch Offset Rules JJG 1108	(100～1290)mm	U=0.15mm		
106	*Wear Tools for Rail	Length	V.R of Wear Tools for Rail JJG 1127	(0～25)mm	U=0.06mm		
107	*Wheel-Checker for Railway Locomotives and Vehicles	Length	V.R of Wheel-Checker for Railway Locomotives and Vehicles JJG 1080	Measuring Ruler for Flange Thickness:(20～35)mm	U=0.06mm		
				Measuring Ruler for Flange Height:(24～38)mm	U=0.06mm		
108	*Calibrators of Wheel-Checkers for Railway Locomotives and Vehicles	Length	V.R of Calibrators of Wheel-Checkers for Railway Locomotives and Vehicles JJG 1155	(10～95)mm	U=6 μ m		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
109	Standard Ball Bars	Length	C.S for Standard Ball Bars JJF 1859	(0～800)mm	U=2.6 μ m		
110	*Rubber and Plastic Film Gage	Length	C.S.for rubber and plastic film gage JJF1488	(0～30)mm	U=5 μ m		
111	*Optical 3D Measuring Systems Based on Structured Light Scanning	Length	C.S.for Optical 3D Measuring Systems Based on Structured Light Scanning JJF1951	Ball Shape Detection Eerror and Dimensional Error: ϕ38mm	U=7 μ m	Only Calibration: Multi-View System	
		Length		Ball Center Distance:(26～800)mm	U=0.020mm		
112	*Chain Length Measuring Machine	Length	C.S.for Chain Length Measuring Machine JJF(zhe)1136	(0～6000)mm	U=6 μ m+3×$10^{-3}L$		
113	Inductive Micrometers	Length	C.S for Inductive Micrometers JJF 1331	Resolution0.01 μ m:(-10～+10) μ m	U=0.03 μ m		
				Resolution0.1 μ m:(-100～+100) μ m	U=0.1 μ m		
				Resolution 1 μ m:(-1000～+1000) μ m	U=1 μ m		
114	Clinometers	Angle	C.S for Clinometers JJF 1915	Digital inclinometer:(-90～+90)°	U=0.01°	只校:Digital inclinometer	
115	*Electrolytic（Coulometric）Coating Thickness Instruments	Thickness	C.S.for Electrolytic（Coulometric）Coating Thickness Instruments JJF1707	(0.2～15) μ m	U_{rel}=5.5%		
Mechanics							
1	*Pressure Transmitters	Pressure	V. R. of Pressure Transmitters JJG 882	(-0.1～250)MPa	U=0.08%FS		
2	*Pressure Controllers	Pressure	V. R. of Pressure Controllers JJG 544	(-0.1～60)MPa	U=0.08%FS		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
3	Hydraulic Jacks	Force value	V. R. of Hydraulic Jacks JJG 621	(1～3000)kN	U_{rel}=1.2%		
4	*Constant Acceleration Centrifugal Test Machines	Rotating velocity	V. R. of Constant Acceleration Centrifugal Test Machines JJG 972	(50～30000)r/min	U_{rel}=0.5%		
5	*Plastic Rock Well Hardness Testing Machine	Hardness	V. R. of Plastic Rock Well Hardness Testing Machine JJG 884	(70～94)HRE	U=0.8HRE		
				(100～120)HRL	U=0.8HRL		
				(114～125)HRR	U=0.6HRR		
6	*Electronic Balance	Mass	V. R. of Electronic Balance JJG 1036,C. S. for Electronic Balances JJF 1847	1mg～10g	U=(0.004～0.03)mg		
				(10～500)g	U=(0.03～0.3)mg		
				(＞0.5～6)kg	U=(1.1～12)mg		
				(6～80)kg	U=12mg～0.5g		
				(80～2000)kg	U=(0.5～65)g		
7	Pressure Regulators with Bourdon Tube Pressure Gauge	Pressure	C. S. for Pressure Regulators with Bourdon Tube Pressure Gauge JJF 1328	(0.1～60)MPa	U=0.93%FS		
8	*Electronic Universal Testing Machine	Force value	V. R. of Electronic Universal Testing Machine JJG 475	1N～100kN	U_{rel}=0.2%		
				(＞100～1000)kN	U_{rel}=0.4%		
		Displacement		(1～1000)mm	U_{rel}=0.2%		
		Speed		(0.1～500)mm/min	U_{rel}=0.2%		
		Coaxality		0～30%	U=2%		

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
9	*Working Dynamometers	Force value	V. R. of Working Dynamometers JJG 455	0.1N～600kN	U_{rel}=0.4%		
				(＞600～2000)kN	U_{rel}=0.7%		
10	Calibration Instrument for Torque Wrenches	Torque	V. R. of Calibration Instrument for Torque Wrenches JJG 797	(0.1～3000)Nm	U_{rel}=0.2%		
11	Weights	Mass	V. R. of Weights JJG 99	(1～500)mg	U=(0.007～0.028)mg		
				(0.5～500)g	U=(0.028～0.8)mg		
				(0.5～5)kg	U=(0.8～8)mg		
				(5～30)kg	U=(0.008～0.15)g		
12	*Wheel Dynamic Balancers	Mass	C. S. for Wheel Dynamic Balancers JJF 1151	(5～120)g	U=3.5g		
				(0～360)°	U=3°		
13	*Table Balances	Mass	V. R. of Table Balances JJG 156	1mg～500g	U=0.08g		
				＞0.5kg～2kg	U=0.3g		
				＞2kg～5kg	U=0.8g		
14	*Mechanical Balance	Mass	V. R. of Mechanical Balance JJG 98	1mg～200g	U=0.003mg		
				＞200g～30kg	U=0.03mg		
15	*Analogue Indicating Weighing Instruments	Mass	V. R. of Analogue Indicating Weighing Instruments JJG 13	100g～20kg	U=(1.6～36)g		
				(20～500)kg	U=(0.036～0.7)kg		
				(500～1000)kg	U=(0.7～1.6)kg		
				(1000～3000)kg	U=(1.6～6.9)kg		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
16	*Non-self-indicating Weighing Instruments	Mass	V. R. of Non-self-indicating Weighing Instruments JJG 14	(0.4～100)kg	U=(6～20)g		
				(100～500)kg	U=(0.02～0.06)kg		
				(500～3000)kg	U=(0.06～0.3)kg		
17	*Digital Indicating Weighing Instruments	Mass	V. R. of Digital Indicating Weighing Instruments JJG 539	2g～30kg	U=(0.03～1.5)g		
				(30～1000)kg	U=(1.5～65)g		
				(1000～20000)kg	U=(0.065~1.5)kg		
18	Elastic Element Pressure Gauges,Pressure-Vacuum Gauges and Vacuum Gauges for General Use	Pressure	V. R. of Elastic Element Pressure Gauges,Pressure-Vacuum Gauges and Vacuum Gauges for general Use JJG 52	(-0.1～250)MPa	U=0.3%FS		
19	Elastic Element Precise Pressure Gauges and Vacuum Gauges	Pressure	V. R. of Elastic Element Precise Pressure Gauges and Vacuum Gauges JJG 49	(-0.1～60)MPa	U=0.08%FS		
20	Digital Pressure Gauges	Pressure	V. R. of Digital Pressure Gauges JJG 875	(-0.1～2)MPa	U=0.025%FS		
				(＞2～250)MPa	U=0.06%FS		
21	*Tension,Compression and Universal Testing Machines	Force Value	V. R. of Tension,Compression and Universal Testing Machines JJG 139	(0.01～100)kN	U_{rel}=0.2%		
				(＞100～3000)kN	U_{rel}=0.4%		
		Displacement		(1～1000)mm	U_{rel}=0.2%		
		Coaxality		0～30%	U=2%		

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
22	*Electro-hydraulic Servo Universal Testing Machines	Force Value	V. R. of Electro-hydraulic Servo Universal Testing Machines JJG 1063	(1～100)kN	U_{rel}=0.2%		
				(＞100～3000)kN	U_{rel}=0.4%		
		Coaxality		0～30%	U=2%		
		Stress rate		(0.1～50)MPa/s	U_{rel}=0.5%		
23	*Working Force Measuring Machines for Special Purposes	Force Value	C. S. for Working Force Measuring Machines for Special Purposes JJF 1134	1cN～500N	U_{rel}=0.2%		
				＞500N～3000kN	U_{rel}=0.4%		
24	Screen Tension Meters	Tension	C. S. for Screen Tension Meters JJF 1465	(7～50)N/cm	U_{rel}=0.9%		
25	*Flexure Testing Machines	Force Value	V. R. of Flexure Testing Machines JJG 476	(0.2～6)kN	U_{rel}=0.5%		
26	*Metallic Rockwell Hardness	Hardness	V. R. of Metallic Rockwell Hardness Testing Machines(Scales A,B,C,D,E,F,G,H,K,N,T) JJG 112	(80～88)HRA	U=0.6HRA		
				(85～100)HRBW	U=0.7HRBW		
				(20～70)HRC	U=0.6HRC		
				(89～91)HR15N	U=0.9HR15N		
				(42～80HR30N	U=1.3HR30N		
				(32～61)HR45N	U=1.2HR45N		
				(88～93)HR15TW	U=1.2HR15TW		
				(70～82)HR30TW	U=1.3HR30TW		
27	*Metallic Brinell Hardness Testers	Hardness	V. R. of Metallic Brinell Hardness Testers JJG 150	(50～125)HBW2.5/62.5	U_{rel}=1.2%		
				(50～225)HBW2.5/187.5	U_{rel}=1.3%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(＞225～400)HBW2.5/187.5	U_{rel}=0.9%		
				(50～125)HBW5/250	U_{rel}=1.3%		
				(50～225)HBW5/750	U_{rel}=1.2%		
				(＞225～400)HBW5/750	U_{rel}=0.8%		
				(50～125)HBW10/1000	U_{rel}=1.2%		
				(50～225)HBW10/3000	U_{rel}=1.4%		
				(＞225～400)HBW10/3000	U_{rel}=1.0%		
28	*Portable Brinell Hardness Testers	Hardness	C. S. for Portable Brinell Hardness Testers JJF 1595	(50～225)HBW	U_{rel}=2%		
				(＞225～400)HBW	U_{rel}=1.8%		
				(175～225)HBS5/750	U_{rel}=2%		
				(100～400)HBS10/3000	U_{rel}=2%		
29	*Equotip Hardness Tester	Hardness	V. R. of Equotip Hardness Tester JJG 747	(490～830)HLD	U=6HLD		
				(460～630)HLG	U=6HLG		
30	*Metallic Vickers Hardness Testers	Hardness	V. R. of Metallic Vickers Hardness Testers JJG 151	(175～225)HV0.05	U_{rel}=5%		
				(400～600)HV0.1	U_{rel}=5%		
				(700～800)HV0.2	U_{rel}=3.5%		
				(700～800)HV0.3	U_{rel}=3.3%		
				(700～800)HV0.5	U_{rel}=2.0%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(700～800)HV1	U_{rel}=1.6%		
				(175～225)HV5	U_{rel}=1.5%		
				(700～800)HV5	U_{rel}=1.5%		
				(400～600)HV10	U_{rel}=1.5%		
				(400～600)HV30	U_{rel}=1.5%		
31	Shore A Durometers	Hardness	V. R. of Shore A Durometers JJG 304	(0～100)HA	U=0.3HA		
32	Shore D Durometer	Hardness	V. R. of Shore D Durometer JJG 1039	(0～100)HD	U=0.3HD		
33	Shore AO Durometers	Hardness	C. S. for Shore AO Durometers JJF 1312	(0～100)HAO	U=0.3HAO		
34	Metallic Webster Hardness Testing Machines	Hardness	V. R. of Metallic Webster Hardness Testing Machines JJG 944	(1～20)HW	U=0.3HW		
35	Metallic Knoop Hardness Testers	Hardness	V. R. of Metallic Knoop Hardness Testers JJG 1047	(175～225)HK0.05	U_{rel}=7.9%		
				(700～800)HK0.05	U_{rel}=3.2%		
				(400～600)HK0.1	U_{rel}=4.2%		
				(700～800)HK0.2	U_{rel}=3.2%		
				(700～800)HK0.3	U_{rel}=3.2%		
36	Type A Barcol Hardness Testers	Hardness	V. R. of Type A Barcol Hardness Testers JJG 610	(42～88)HBa	U=1.2HBa		
37	*Shock and Bump Testing Machines	Acceleration	V. R. of Shock and Bump Testing Machines JJG 1174	(1～50000)m/s^2	U_{rel}=5.2%		
38	*Hydraulic Vibration Testing	Acceleration	V. R. of Hydraulic Vibration Testing System JJG 638	(2～1200)m/s^2	U_{rel}=3.2%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
	System	Amplitude		(0.01～10)mm	U_{rel}=4.5%		
		Frequency		5Hz～50Hz	U=1Hz		
				50Hz～3kHz	U_{rel}=2%		
39	*Mechanical Vibration Genetator for Testing	Acceleration	V. R. of Mechanical Vibration Genetator for Testing JJG 189	(2～1200)m/s^2	U_{rel}=3.6%		
		Amplitude		(0.01～10)mm	U_{rel}=4.6%		
		Frequency		5Hz～50Hz	U=1Hz		
				50Hz～3kHz	U_{rel}=2%		
40	*Equipment of Power Measuring	Torque	V. R. of Equipment of Power Measuring JJG 653	(0.1～3000)Nm	U_{rel}=0.1%		
		Rotating velocity		(100～25000)r/min	U_{rel}=0.2%		
41	Tachometers	Rotating velocity	V. R. of Tachometers JJG 105	(30～40000)r/min	U_{rel}=0.06%		
42	Working Glass Container	Capacity	V. R. of Working Glass Container JJG 196	(0.1～10)mL	U=0.004mL		
				(＞10～100)mL	U=0.01mL		
				(＞100～500)mL	U=0.05mL		
				(＞500～1000)mL	U=0.1mL		
				(＞1000～2000)mL	U=0.2mL		
43	Density meter	Density	V. R. of Working Glass Hydrometers JJG 42	(650～2000)kg/m^3	U=0.3kg/m^3		
		Alcohol content		q:(0～100)%	U=0.2%		
44	Locomotive Pipette	Capacity	V. R. of Locomotive Pipette JJG 646	(0.1～10)μL	U=(0.014～0.06)μL		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(10～100)μL	U=(0.06～0.15)μL		
				(100～1000) μL	U=(0.15～0.8)μL		
				(1000～10000)μL	U=(0.8～4)μL		
45	*Pendulum Impact Testing Machines	Energy	V. R. of Pendulum Impact Testing Machines JJG 145	Indirect measurement: (1～30)J	U_{rel}=2.0%		
				Indirect measurement: (＞30～110)J	U_{rel}=1.9%		
				Indirect measurement: (＞110～220)J	U_{rel}=1.8%		
				Indirect measurement: (＞220～300)J	U_{rel}=1.6%		
				Direct measurement: (20～40)J	U=1J		
				Direct measurement: (＞40～300)J	U_{rel}=3%		
46	*Cantilever-Beam(Izod-Type)Impact Testing Machine	Energy	V. R. of Cantilever-Beam(Izod-Type)Impact Testing Machine JJG 608	(0.1～150)J	U_{rel}=0.4%		
47	Spring Hammers	Energy	C. S. for Spring Hammers JJF 1475	(0.2～2)J	U_{rel}=1.6%		
48	*Rain Testing Equipments	Rainfall intensity	C. S. for Rain Testing Equipments JJF(MI) 17	(10～600)mm/h	U_{rel}=3%		
		Wind speed		(1～2)m/s	U=0.16m/s		
				(＞2～5)m/s	U=0.2m/s		
				(＞5～10)m/s	U_{rel}=4%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(＞10～20)m/s	U_{rel}=3%		
		Length		Raindrop diameter: (1～6)mm	U=(0.1～0.3)mm		
49	Special Glassware	Capacity	V. R. of Special Glassware JJG 10	(0.2～1)mL	U=0.01mL		
				(＞1～10)mL	U=0.02mL		
				(＞10～100)mL	U=0.03mL		
50	*Dust and Sand Testing Equipments	Temperature	C. S. for Dust and Sand Testing Equipments JJF(MI) 18	(10～100)℃	U=0.2℃		
		Humidity		5%RH～30%RH	U=1.4%RH		
				30%RH～75%RH	U=1.2%RH		
		Wind speed		(1～2)m/s	U=0.16m/s		
				(＞2～5)m/s	U=0.2m/s		
				(＞5～10)m/s	U_{rel}=4%		
				(＞10～20)m/s	U_{rel}=3%		
		Dust concentration		(0.1～20)g/m^3	U=(0.03～0.8)g/m^3		
		Dust deposition rate		(5～7)g/(m^2 • d)	U=0.015g/(m^2 • d)		
51	Micro-differential Pressure Gauge	Pressure	V. R. of Micro-differential Pressure Gauge JJG(Jin) 03	(-5～5)kPa	U=0.6%FS		
52	*Thermogravimetric Moisture Meters	Mass	V. R. of Thermogravimetric Moisture Meters JJG 658	100mg～500g	U=(0.2～20)mg		
		Moisture content		94.95%～95.05%	U=0.06%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
53	Pencil Hardness Testers	Mass	C. S. for Pencil Hardness Testers JJF(PI) 007	(400～1100)g	U=0.3g		
		Angle		(40～50)°	U=0.3°		
54	*Film Impact Testers	Length	C. S. for Film Impact Testers JJF(PI) 002	(90～510)mm	U=0.2mm		
		Mass		(990～1010)g	U=0.2g		
55	*Falling Weight Impact Testing Machines	Mass	C. S. for Falling Weight Impact Testing Machines JJF 1445	5g～5kg	U=0.3g	Accredited Only for Drop Hammer Weight and Drop Height	
				(＞5～30)kg	U=3g		
		Height		(0.1～3.5)m	U=1mm		
56	Electric and Pneumatic Torque Wrenches	Torque	C. S. for Electric and Pneumatic Torque Wrenches JJF 1610	(0.2～7000)Nm	U_{rel}=1.2%		
57	Torque Wrenches	Torque	V. R. of Torque Wrenches JJG 707	(0.1～15000)Nm	U_{rel}=1.2%		
58	Hydraulic Torque Bench	torque	V. R. of Hydraulic Torque Bench JJG(xin) 16	(50～50000)Nm	U_{rel}=1.3%		
59	*Torsion Testing Machines	Torque	V. R. of Torsion Testing Machines JJG 269	(20～500)Nm	U_{rel}=0.4%		
		Angle		(0.5～90)°	U_{rel}=0.5%		
60	*Testing Machines of Resistance to Internal Pressure of Plastics Pipe	Pressure	C. S. for Testing Machines of Resistance to Internal Pressure of Plastics Pipe JJF 1628	(1～25)MPa	U=0.1%FS		
61	*Ralative Density Balance for Liquid	Relative density	V. R. of Ralative Density Balance for Liquid JJG 171	0.9938～1.0018	U=0.0006		
62	UItrasonic Hardness Testers	Force value	C. S. for Ultrasonic Hardness Testers JJF 1436	(1～100)N	U_{rel}=0.4%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Hardness		(175～225)HV	U_{rel}=1.6%		
				(400～600)HV	U_{rel}=1.6%		
				(700～800)HV	U_{rel}=1.6%		
63	*Electrodynamic Vibration Testing Systems	Acceleration	V. R. of Electrodynamic Vibration Testing Systems JJG 948	(2～1200)m/s^2	U_{rel}=3.2%		
		Frequency		5Hz～50Hz	U=1Hz		
				＞50Hz～3kHz	U_{rel}=2%		
64	Piezoelectric Accelerometer	Acceleration	V. R. of Piezoelectric Accelerometer JJG 233	Reference points: 10m/s^2,160Hz	U_{rel}=1.1%		
				Passband: (2～100)m/s^2,(20～2000)Hz	U_{rel}=1.6%		
65	Cupping tester	Length	V. R. of Cupping Testing Machine JJG 583	(0～150)mm	U=30 μ m		
		Force value		(9～11)kN	U_{rel}=0.36%		
		IE		(0～20)mm	U=9.4 μ m		
66	Reference Leaks	Leak rates	C. S. for Reference Leaks by Soap Film Flowmeter JJF 1627	1mL/min～10L/min	U_{rel}=1.8%		
67	Differential Pressure Air Leak Tester	pressure	V. R. of Differential Pressure Air Leak Tester JJG(Yue) 042	(0～700)kPa	U=0.2%FS		
		Leakage rate		(0.5～10)mL/min	U_{rel}=1.8%		
68	Vibration Meters	Acceleration	V. R. of Vibration Meters JJG 676	(2～100)m/s^2,(20～2000)Hz	U_{rel}=2%		
		Speed		(0.25～50)cm/s,(20～2000)Hz	U_{rel}=2%		
		Displacement		(0.01～2)mm,(20～2000)Hz	U_{rel}=2%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
69	*Special Axle(Wheel)Load Scales for Motor Vehicle Test	Mass	V. R. of Special Axle(Wheel)Load Scales for Motor Vehicle Test JJG 1014	(0.1～20)t，(≤10%FS)	U=0.05%FS		
				(0.1～20)t，(＞10%FS)	U_{rel}=0.5%		
70	Tighten Machine	Torque	C. S. for Tighten Machine JJF(Yu) 014	(0.2～500)Nm	U_{rel}=1.2%		
				(＞500～6000)Nm	U_{rel}=0.5%		
		Angle		(1～360)°	U_{rel}=0.5%		
71	Pressure Regulators with Flowmeter	pressure	C. S. for Pressure Regulators with Flowmeter JJF(Ji) 177	(0～25)MPa	U=1.0%FS		
		Flow rate		(0.5～25)L/min	U_{rel}=1.4%		
72	Wireless Pressure Recorder	pressure	C. S. for Wireless Pressure Recorder JJF(Ji) 179	(0～500)kPa	U=0.1%FS		
73	Torque Multiplier Special for Engine	Torque	C. S. for Torque Multiplier Special for Engine JJF(CA) 0121	Input: (4～2000)Nm	U_{rel}=2%		
				Output：(50～50000)Nm	U_{rel}=2%		
74	Photoelectric Belt Tension Meters	Frequency	C. S. for Photoelectric Belt Tension Meters JJF(Su) 204	(10～600)Hz	U_{rel}=1%		
		Tension		(20～8000)N	U_{rel}=1.6%		
75	Torsion Balance	Mass	V. R. of Torsion Balance JJG 46	(0～2.5)g	U=(0.003～1.3)mg		
76	Calibration Device for Screen Tensiometer	Tension	Calibration Method for Calibration Device for Screen Tensiometer LECC 001	(7～70)N/cm	U=0.4%FS		
77	*Working Torque-meters	Torque	V. R. of Working Torque-meters JJG 1146	(0.01～3000)Nm	U_{rel}=(0.2～0.6)%		
78	Portable Vibration Calibrator	Acceleration	V. R. of Portable Vibration Calibrator JJG 1062	(2～100)m/s^2,(20～2000)Hz	U_{rel}=2%		
		Frequency		(20～2000)Hz	U_{rel}=0.1%		

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
79	Linear Velocity Measuring Instrument	Speed	C.S for Linear Velocity Measuring Instrument JJF 1801	(0.1～30) m/s	U_{rel}=0.5%		
80	*Anchorage Testing Machines	Force	V.R.of Anchorage Testing Machines JJG 1083	(50～3000)kN	U_{rel}=0.4%		
		Displacement		(5～1000)mm	U=0.03mm		
81	*Concrete Batching Scales	Mass	V.R.of Concrete Batching Scales JJG 1171	(1～10000)kg	U=(0.002～10)kg		
82	Micro sampling syringe	Capacity	V.R.of Micro sampling syringe JJG(ji)166	(0.1～1000) μL	U=(0.014～2.5) μL		
83	Le Chatelier Flask for Determining Density of Hydraulic Cement	Capacity	V.R.of Le Chatelier Flask for Determining Density of Hydraulic Cement JJG(jt)092	(0.1～1)mL	U_{rel}=1.6%		
				(18～24)mL	U_{rel}=1.6%		
84	Bottle Top Dispenser	Capacity	C.S for Bottle Top Dispenser JJF(ji)181	(0.1～200)mL	U=(0.001～0.3)mL		
85	Laboratory Oscillation-type Liquid Density meters	Density	V.R.of Laboratory Oscillation-type Liquid Density meters JJG 1058	(650～2000)kg/m^3	(0.094～0.20)kg/m^3		
86	Float Meter	Gas flow	V.R.of Float Meter JJG 257	(0.02～200)L/min	U_{rel}=0.6%		
		Liquid flow		(0.04～150)m^3/h，DN(15～100)	U_{rel}=0.4%		
87	Soap Film Flow meter	Flow	V.R.of Soap Film Flow meter JJG 586	(0.02～60)L/min	U_{rel}=0.6%		
		Capacity		(10～200)mL	U=0.20mL		
				(＞200～1000)mL	U=0.24mL		
				(＞1000～4000)mL	U=0.36mL		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(＞4000～6000)mL	U=0.64mL		
88	Thermal Mass Gas Flowmeters	Flow	V.R.of Thermal Mass Gas Flowmeters JJG 1132	(0.1～200)L/min	U_{rel}=0.6%		
89	Turbine Flowmeter	Gas flow	V.R.of Turbine Flowmeter JJG 1037	(0.02～100)L/min	U_{rel}=0.6%		
		Liquid flow		(0.04～150）m^3/h, DN(15～100)	U_{rel}=0.4%		
90	*Online Electromagnetic Flowmeters	Flow	C.S for Online Electromagnetic Flowmeters JJF(su)228	(1.6～1000)m^3/h, DN(25～300)	U_{rel}=0.6%		
91	Ultrasonic Flowmeters	Liquid flow	V.R.of Ultrasonic Flowmeters JJG 1030	(0.04～150）m^3/h, DN(15～100)	U_{rel}=0.4%		
92	Electromagnetic Flowmeters	Flow	V.R.of Electromagnetic Flowmeters JJG 1033	(0.04～150）m^3/h, DN(15～100)	U_{rel}=0.4%		
93	Goriolis Mass Flow Meters	Liquid flow	V.R.of Goriolis Mass Flow Meters JJG 1038	(40～150000)kg/h, DN(15～100)	U_{rel}=0.4%		
94	Vortex-shedding Flowmeter	Liquid flow	V.R.of Vortex-shedding Flowmeter JJG 1029	(0.04～150）m^3/h, DN(15～100)	U_{rel}=0.4%		
95	Liquid Positive Displacement Flowmeter	Flow	V.R.of Liquid Positive Displacement Flowmeter JJG 667	(0.04～150）m^3/h, DN(15～100)	U_{rel}=0.4%		
96	*Open Channel Flowmeter	Flux	The Online Calibration Specification of Open Channel Flowmeter JJF（Zhe） 1080	(1～250)m^3/h	U_{rel}=3%		
97	Differential Pressure Flowmeters	Flux	V.R.of Differential Pressure Flowmeters JJG 640	（0.5～150）m^3/h	U_{rel}=0.4%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
98	*Working Thermal Conductivity Vacuum Gauge	pressure	Calibration Specification of Working Thermal Conductivity Vacuum Gauge JJF 1050	（8×10^{-1}～1×10^{5}）Pa	U_{rel}=(12～15) %		
99	*Ionization Vacuum Gauge	pressure	Calibration Specification of Ionization Vacuum Gauge JJF 1062	（8×10^{-1}～1×10^{5}）Pa	U_{rel}=(6.2～13)%		
		Emission current		（0.01～55）mA	U_{rel}=1%		
		potential		（0.1～300）V	U_{rel}=1%		
100	*Capacitance Diaphragm Vacuum Gauges	pressure	Calibration Specification for Capacitance Diaphragm Vacuum Gauges JJF 1503	（3.2～1×10^{5}）Pa	U_{rel}=1.0%		
101	*Piezoresistive Vacuum Gauge	pressure	Verification Regulation of Piezoresistive Vacuum Gauge JJG 932	（1×10^{2}～1×10^{5}）Pa	U_{rel}=6.8%		
102	*Refeigerant Leak Detector	Leakage rate	Calibration Specification for Refeigerant Leak Detector JJF(QG)125	（0.3～1.5）$\times10^{-5}$Pa • m^3/s	U_{rel}=（12～15）%		
		Time		(0～10)s	U=0.52s		
103	*Helium Mass Spectrometer Leak Detector	Leakage rate	Calibration Specification for Helium Mass Spectrometer Leak Detector JJF(MI)186	(4.34×10^{-8}～1.87×10^{-6})Pa • m^3 /s	U_{rel}=11%		
104	*Transmissible Pressure Gauge	Pressure	Calibration Specification for Transmissible Pressure Gauge JJF(JI)157	(-0.1～250)MPa	U=0.3%FS		
		Resistance		(1～500) Ω	U_{rel}=0.3%		
105	*Medical Centrifuge	Rotate speed	for Medical Centrifuge JJF(Zhe)1117	(100～9999)r/min	U_{rel}=0.3%		
				(10000～30000)r/min	U_{rel}=0.1%		
106	*Portable Rockwell Hardness Testers	Hardness	C.S for Portable Rockwell Hardness Testers JJF 1594	(80～88)HRA	U=1.0HRA		
				(85～100)HRBW	U=1.0HRBW		

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(20～70)HRC	U=(0.9～1.0)HRC		
				(89～91)HR15N	U=0.9HR15N		
				(42～80)HR30N	U=1.0HR30N		
				(32～61)HR45N	U=0.8HR45N		
				(88～93)HR15TW	U=1.2HR15TW		
				(70～82)HR30TW	U=0.9HR30TW		
107	*Hydraulic stretchers	Force	C.S for hydraulic stretchers JJF(Xin)15	(50～3000)kN	U_{rel}=0.6%～1.0%		
108	*Quantitative Filling Machine for Liquid Material	Mass	V.R of Quantitative Filling Machine for Liquid Material JJG 687	（0.1～30）kg	U_{rel}=(0.5～0.02)%		
				(＞30～60)kg	U_{rel}=0.26%		
		Capacity		(5～2000)mL	U_{rel}=(2.4～1.2)%		
109	*Liquid Level Measuring Devices	Length	V.R of Liquid Level Measuring Devices JJG 971	(0.01～40)m	U=0.07%FS	Only Pressure are recognized	
Thermology							
1	Digital Thermometer	Temperature	C.S.for Digital Thermometer JJF(Su)95	(-60～300)℃	U=0.1℃		
				(300～1000)℃	U=0.6℃		
2	*Temperature and Pressure of Stream Sterilizer	Temperature	C.S.for Temperature and Pressure of Stream Sterilizer JJF(Su)96	40～150)℃	U=0.2℃		
		Pressure		(0～400)kPa	U=1.3kPa		
3	Calibration Specification of Thermistor	Temperature	C.S.of Thermistor Thermometers JJF1379	(-50～200)℃	U=0.03℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
4	Filled System Thermogravimetric	Temperature	C.S for Filled System Thermometers JJF1909	(-80～300)℃	U=0.3℃		
				(300～600)℃	U=0.7℃		
5	Working Copper/Copper-Nickel Thermocouple	Temperature	V.R.of the Working Copper/Copper-Nickel Thermocouple JJG368	(-80～350)℃	U=0.3℃		
6	Temperature Indicators	Temperature	C.S.for Temperature Indicators JJF1664	With thermocouple：(-200～1600)℃	U=(0.3～1.2)℃		
				With thermal resistance：(-200～800)℃	U=(0.3～0.8)℃		
7	*Electrically-heatedThermostatic Water bath	Temperature	C.S.of Electrically-heatedThermostatic Water bath JJF(Liao)118	(0～100)℃	U=0.2℃		
8	*Temrmometers of ClinicAutoclave	Temperature	C.S.for Temrmometers of ClinicAutoclave JJF1308	(0～150)℃	U=0.4℃		
9	*Temperature Transmitter	Temperature	C.S.of the Temperature Transmitter JJF1183	Equipped with a sensor：(-80～300)℃	U=0.3℃		
				No sensor available：（-100～500）℃	U=0.4℃		
10	*Glow-wire Apparatus	Temperature	C.S.of Glow-wire Apparatus JJF(Zhe)1050	(0～1100)℃	U=1.8℃		
		Time		(0～60)min	U=0.02s		
		Length		(0～100)mm	U=0.004mm		
		Pressure		(0～10)N	U=0.1N		
11	Temperature Itinerant Detecting Instrument	Temperature	C.S.for Temperature Itinerant Detecting Instrument JJF1171	(-80～300)℃	U=0.11℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
12	Temperature Data Acquisition Instruments	Temperature	C.S.of Temperature Data Acquisition Instruments JJF1366	(80～0)℃	U=0.12℃		
				(0～300)℃	U=0.11℃		
				(300～500)℃	U=0.15℃		
13	Bimetallic Thermometers	Temperature	C.S for Bimetallic Thermometers JJF1908	(-80～300)℃	U=0.3℃		
14	Liquid-in-Glass Thermometers for Workin	Temperature	V.R.of Liquid-in-Glass Thermometers for Working JJG130	(-80～300)℃	U=0.02℃		
15	*Equipment of the Environmental Testing for Temperature and Humidity	Temperature	C.S.of Environmental Testing Equipment for Temperature and Humidity Parameters JJF1101	(-80～300)℃	U=0.3℃		
		Humidity		10%RH～100%RH	U=1.2%RH		
16	Industry Platinum and Copper Resistance Thermometers	Temperature	V.R.of Industry Platinum and Copper Resistance Thermometers JJG229	(-80～300)℃	U=0.05℃		
17	Working Radiation Thermometers	Temperature	V.R.of Radiation Thermometers JJG856	(5～550)℃	U=1.0℃		
				(550～1000)℃	U=2.5℃		
				(1000～1200)℃	U=3.2℃		
18	*Open/Closed Cup Flash Point /Testers	Temperature	C.S.for Open/Closed Cup Flash Point Testers JJF1384	close：(70～220)℃	U=5.3℃		
				open：(70～220)℃	U=7.4℃		
19	*Digital Temperature Indicators and Controllers	Temperature	V.R.of Digital Temperature Indicators and Controllers JJG617	With thermocouple:(-200～1600)℃	U=(0.2～1.0)℃		
				With thermal resistance:(-200～800)℃	U=(0.2～0.7)℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
20	*Analogue Temperature Indicators and Controllers	Temperature	V.R.of Analogue Temperature Indicators and Controllers JJG951	With thermocouple:(-100～1600)℃	U=(0.7～1.2)℃		
				With thermal resistance:(-200～800)℃	U=(0.4~1.1)℃		
21	Mechanical Thermo-hygrometers	Temperature	V.R.of Mechanical Thermo-hygrometers JJG205	(5～50)℃	U=0.3℃		
				30%RH～90%RH	U=1.5%RH		
22	Temperature Indicators and Simulators by Electrical Simulation and Measurement	Temperature	C.S.of Temperature Indicators and Simulators by Electrical Simulation and Measurement JJF1309	Output tresistor:(-200～800)℃	U=0.02℃		
				Output thermocouple:(0～1200)℃	U=0.07℃		
				Output thermocouple:(1200～1600)℃	U=0.5℃		
				Measure resistor:(-200～800)℃	U=0.02℃		
				Measure thermocouple:(-200～0)℃	U=0.3℃		
				Measure thermocouple:(0～1200)℃	U=0.06℃		
				Measure thermocouple:(1200～1600)℃	U=0.5℃		
23	Recorders for Industrial-Process Measurement	Temperature	V.R.of the Recorders for Industrial-Process Measurement JJG74	With thermocouple：(-200～1600)℃	U=0.3℃		
				With thermal resistance：(-200～850)℃	U=0.2℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
24	Standard Mercury-in-Glass Thermometers	Temperature	V.R.of Standard Mercury-in-Glass Thermometers JJG161	(-60～0)℃	U=0.02℃		
				(0～300)℃	U=0.04℃		
25	*salt mist testing chambers	Temperature	C.S.for salt mist testing chambers JJF(Zhe)1125	(0～100)℃	U=0.4℃		
		Salt spray sedimentation rate		(1.0～2.0)(mL/ h • 80cm^2)	U=0.3(mL/ h • 80cm^2)		
26	*Extrusion Plastometer	Temperature	V.R.for Extrusion Plastometer JJG878	(20～400)℃	U=0.2℃		
		MFR		(0～25)g/10min	U=0.5g/10min		
		Quality		5mg～100g	U=0.1mg		
				100g～30kg	U=1g		
		Time		(0～60)min	U=0.2s		
27	*Thermostatic Bath’s Metrological Characteristics	Temperature	Measurement and Test Norm of Thermostatic Bath’s Metrological Characteristics JJF1030	volatility：(-60～300)℃	U=0.007℃		
				homogeneity：(-60～300)℃	U=0.005℃		
28	*Box-type Resistance Furnace	Temperature	C.S.for Box-type Resistance Furnace JJF1376	(30～1200)℃	U=1.3℃		
29	Base Metal Thermocouple	Temperature	C.S.for Base Metal Thermocouples JJF1637	(-60～300)℃	U=0.3℃		
				(300～1200)℃	U=(0.3～1.0)℃		
30	sheathed Thermocouples	Temperature	C.S.for Sheathed Thermocouples JJF1262	(-60～300)℃	U=0.4℃		
				(300～1300)℃	U=(0.4～1.0)℃		
31	Working Noble Metal Thermocouples	Temperature	V.R.of Working Noble Metal Thermocouples JJG141	(0～1300)℃	U=(0.4～1.0)℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(1300～1600)℃	U=2.0℃		
32	*Working Noble Metal Thermocouples	Temperature	C.G.of the Temperature Block Calibrators JJF1257	(-80～400)℃	U=0.3℃		
				(400～1200)℃	U=1.3℃		
33	*Melting-point Measurement Instrument	Temperature	V.R.of Melting-point Measurement Instruments JJG701	(30～300)℃ (0.2℃/min)	U=0.2℃		
				(30～300)℃ (1.0℃/min)	U=0.3℃		
34	*Heat Distortion and Vicat Softening Temperature Apparatus	Temperature	C.S.for Heat Distortion and Vicat Softening Temperature Apparatus JJF(Zhe)1051	(30～300)℃	U=0.4℃		
		Heating rate		(40～120)℃/h	U=0.3℃/h		
		Deformation amount		(0.5～50)mm	U=3 μ m		
		Quality		(1～5000)g	U=0.3g		
35	Electric Contact Mercury-in-Glass Thermometers	Temperature	V.R.of the Electric Contact Mercury-in-Glass Thermometers JJG131	(-30～100)℃	U=0.10℃		
				(100～200)℃	U=0.3℃		
				(200～300)℃	U=0.6℃		
36	Thermal Imagers	Temperature	C.S.for Thermal Imagers JJF1187	(50～500)℃	U=1.2℃		
				(500～1200)℃	U=(1.2~3.1)℃		
37	Surface Thermometers	Temperature	C.S.for the Surface Thermometers JJF1409	(50～400)℃	U=(0.6~1.6)℃		
38	Surface Platinum Resistance Thermometer	Temperature	V.R. of Surface Platinum Resistance Thermometer JJG684	(50～400)℃	U=(0.6~1.6)℃		
	*Temperature /	Noise	C.S. for Temperature / Humidity / Vibration	(0～100)dB	U=1dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
	Vibration Combined Environmental Testing System	Temperature	Combined Environmental Testing System JJF1270	(-80～300)℃	U=0.4℃		
		Humidity		(5～100)%RH	U=1.2%RH		
		Temperature change rate		(0.6～60)℃/min	U=0.1℃/min		
		Wind speed		(0.2～5)m/s	U=(0.2～0.5)m/s		
				(5～20)m/s	U_{rel}=4%		
		Indicative error of vibration acceleration amplitude		(2～1200)m/s^2	U_{rel}=3%		
		Acceleration Response Characteristics and Acceleration Uniformity of Additional Table of Shaking Table		(2～1200)m/s^2	U_{rel}=3%		
40	Digital Temperature - hygrometers	Humidity		5%RH～95%RH	U=1.0%RH		
		Temperature		(0～50)℃	U=0.2℃		
41	Temperature and humidity transmitter	Temperature	C.S.for Temperature and humidity transmitter JJF(Zhe)1035	(0～50)℃	U=0.4℃		
		humidity		5%RH～95%RH	U=1.1%RH		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
42	Temperature Parameters of Temperature Switches	Temperature	C.S.for Temperature Parameters of Temperature Switches JJF1632	(-30～300)℃	U=0.5℃		
43	Xenon arc weather -ometer	Temperature	V.R. of Xenon arc weather -ometer JJG (Elec) 31501	(40～120)℃	U=0.4℃		
		Humidity		(10～98)%RH	U=1.1%RH		
		UV Irradiance		(0.1～1200)W/m^2	U_{rel}=15%		
44	*VacuumDrying Chamber	Temperature	C.S. for Temperature and Pressure of Vacuum Drying Chamber JJF(Su) 177	(0～140）℃			
		Pressure		(0～101)kPa	U=0.7kPa		
		Time		(0～150)min	U=0.2s		
45	Precision Platinum Resistance Digital Thermomete	Temperature	C.S. for Precision Platinum Resistance Digital Thermometer JJF(JI)103	(-60～300)℃	U=0.07℃		
46	*Temperature Uniformity in Thermocouple Calibration Furnaces	Temperature	T.S. of Temperature Uniformity in Thermocouple Calibration Furnaces JJF 1184	(300～1300)℃	U=0.24℃		
47	*Dry Bath Incubator for biological experiments	Temperature	C.S. for Dry Bath Incubator for biological experiments JJF(Zhe)1149	deviatio：(-10～150)℃	U=0.13℃		
				uniformity：(-10～150)℃	U=0.07℃		
				fluctuation：(-10～150)℃	U=0.10℃		
48	*Apparatus for Softening Point of Bitumen	Temperature	V.R. of Apparatus for Softening Point of Bitumen JJG(Communications) 057	(0～200)℃	U=0.1℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Heating rate		（0～5）℃/min	U=0.2℃/min		
		Length		（0～25）mm	U=0.002mm		
				（>25～200）mm	U=0.02mm		
		Capacity		(1～1000)mL	U=6mL		
		Mass		(1～200)g	U=0.003g		
49	*Differential Scanning Calorimeters	Temperature	V.R. of the Differential Scanning Calorimeters JJG936	In：(130～200)℃	U=0.4℃		
				Sn：(200～290)℃	U=0.3℃		
				Pb：(290～380)℃	U=0.6℃		
				Zn：(380～500)℃	U=0.7℃		
				KN03：(130～200)℃	U=0.5℃		
				SiO2：(570～600)℃	U=1.0℃		
		Heat		In：(25～30)J/g	U=0.5J/g		
				Sn：(28～61)J/g	U=0.4J/g		
				Pb：(23～30)J/g			
				Zn：(30～110)J/g	U=1.4J/g		
50	*Thermogravimetric Analyzers	Temperature	V.R. for Thermogravimetric Analyzers JJG1135	In：(130～200)℃	U=0.4℃		
				Sn：(200～290)℃	U=0.3℃		
				Pb：(290～380)℃	U=0.6℃		
				Zn：(380～500)℃	U=0.7℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				Alumel：153.8℃	U=0.9℃		
				Ni：358.6℃	U=1.0℃		
				Fe:772.0℃	U=1.8℃		
		Heat		(0～20)mg	U=0.03mg		
51	*Thermal Conductivity Tester of guarded hot plate	Thermal conductivity	C.S. for Thermal Conductivity Tester of guarded hot plate JJF(Zhe)1141	（0.01～1）W/(m・K)	U_{rel}=1%		
52	*Temperature Parameter of Passive Medical Cold Boxes	Temperature	C.S. for Temperature Parameter of Passive Medical Cold Boxes JJF 1676	(-20～20)℃	U=0.14℃		
53	*Temperature and Humidity Standard Chambers	Temperature	C.S. for Temperature and Humidity Standard Chambers JJF 1564	Temperature fluctuation：(5～50)℃	U=0.02℃		
				Temperature Change Rate：(5～50)℃	U=0.03℃/min		
				Temperature Uniformity：(5～50)℃	U=0.05℃		
		Humidity		Humidity Fluctuation：5%～95%	U=0.2%RH		
				Humidity Change Rate:5%～95%（5~50）℃	U=0.2%RH/min		
				humidity uniformity：5%～95%	U=0.5%RH		
54	Thermometers of WBGT-index Meters	Temperature	C.S. for Thermometers of WBGT-index Meters JJF 1407	(5～120)℃	U=0.3℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
55	Dual-rail Thermometer	Temperature	V. R Thermometers-part1：Bimetallic Rail Thermometers JJG 1158.1-2018	（-40～70）℃	U=0.18℃		
56	Rubber Disc Oscillating Vulcanizer	Temperature	V.R. of Rubber Disc Oscillating Vulcanizer JJG (Chemical Industry)101	（100～200）℃	U=0.4℃	Only do the temperature in the cavity	
57	*Constant Temperature Heating Platform	Temperature	C.S. for Constant Temperature Heating Platform JJF(Weapon Industry) 256	(50～400)℃	U=(1.0～1.8)℃		
58	*Air Thermal Aging Test Oven	Temperature	T.S for air Thermal Aging Test Oven JJF(Jin)24	(0～500)℃	U=0.4℃		
		Ventilation Rate		(1～20)p/h	U_{rel}=0.4%		
59	*Equipment of Biological Artificial Climate	Temperature	C.S. for Equipment of Biological Artificial Climate JJF(Zhe)1102	(5～50)℃	U=0.11℃		
		Humidity		(50～90)%RH	U=1.3%RH		
60	*Experimental Daylight Presses	Temperature	C.S. for Experimental Daylight Presses JJF(Petrochemical Industry) 015	(30～300)℃	U=0.3℃		
		Parallelism		(0.01～0.25)mm/m	U=0.05mm/m		
		Tt		(1s～2h)	U=0.5s		
61	Digital Rail Thermometer	Temperature	V. R Thermometers-part2：Digital Rail Thermometers JJG 1158.2-2018	(-40～70)℃	U=0.13℃		
Electromagnetism							
1	*High-voltage Withstanding Voltage Tester	Voltage	V.R.of High-voltage Withstanding Voltage Tester JJG(MI)18	AC：(0.1～100)kV（50Hz）	U_{rel}=1.2%		
				DC：(0.1～100)kV	U_{rel}=0.6%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Electric current		AC：(0.5～200)mA（50Hz）	U_{rel}=1.8%		
				DC：(0.5～200)mA	U_{rel}=1.2%		
		Time		（1-9999)s	U_{rel}=1.2%		
2	*Proof Tracking Index Testers	Voltage	C.S.for Proof Tracking Index Testers JJF(Zhe)1087	10V～750V	U_{rel}=0.5%		
		Electric current		(0.01～3)A	U_{rel}=0.6%		
		Time		1s～999.9s	U=0.26s		
3	*Process Calibrators	Input dc resistance	C.S.for Process Calibrators JJF1472	0.1Ω～1MΩ	$U_{rel}=2\times10^{-5}$		
		Input current		10μA～1A	U_{rel}=0.07%		
		Input dc voltage		1mV～110V	$U_{rel}=1.6\times10^{-4}$		
		Output dc resistance		0.1Ω～1MΩ	U_{rel}=0.06%		
		Output current		10μA～1A	U_{rel}=0.07%		
		Output dc voltage		1mV～110V	$U_{rel}=6\times10^{-5}$		
		Thermal resistance measurement		(-200～850)℃	U=（0.10～0.18）℃		
		Thermocouple measurement		(-200～1600)℃	U=（0.20～0.57）℃		
		TemperatureThermal resistance output		(-200～850)℃	U=0.10℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Thermocouple output		(-200～1600)℃	U=0.20℃		
4	*Online Testers of Winding Temperature Rise	Dc resistance	C.S.for Online Testers of Winding Temperature Rise JJF1540	0.1Ω～10kΩ	U_{rel}=0.05%		
5	*Battery Internal Resistance Testers	Resistance	C.S.for Battery Internal Resistance Testers JJF1620	0.1mΩ～2mΩ	U_{rel}=0.12%		
				2mΩ～20mΩ	U_{rel}=0.025%		
				20mΩ～3kΩ	U_{rel}=0.015%		
		Dc voltage		(0.1～800)V	U_{rel}=0.4%		
6	Contactless Electrostatic Voltage Measuring Instruments	Voltage	C.S.for Contactless Electrostatic Voltage Measuring Instruments JJF1517	（0.01～20)kV	U_{rel}=2.3%		
7	*Alibration specifIcation of Winding InterturnImpulse Ⅴoltage Tester	Peak voltage	C.S.for Impulse Voltage Tester for Winding Interturn Insulation JJF1691	（0.01～15）kV	U_{rel}=2.3%		
		Rise time		0.2μs or 1.2μs	U_{rel}=2.5%		
8	*Surface Resistance Tester	Resistance	C.S.for Surface Resistance Tester JJF1285	(10^3～10^{12}) Ω	U_{rel}=1.5%		
		Voltage		(1～300)V	U_{rel}=0.4%		
9	*D.C .R esistors	Resistance	V.R.of D.C .R esistors JJG166	(0.1～10)Ω	U=0.42mΩ		
				(10～100)Ω	U=4mΩ		
				(0.1～1)kΩ	U=0.013Ω		
				(1～10)kΩ	U=0.13Ω		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(10～100)k Ω	U=1.3 Ω		
				(0.1～1)M Ω	U=0.021k Ω		
				(1～10)M Ω	U=0.84k Ω		
				(10～100)M Ω	U=61k Ω		
				(0.1～1)G Ω	U=6M Ω		
10	*Multimeters	DC Voltage	C.S.for Multimeters JJF1587	1mV～330mV	$U=2\times10^{-5}V_x+1\ \mu V$		
				330mV～3.3V	$U=1.1\times10^{-5}V_x+2\ \mu V$		
				3.3V～33V	$U=1.2\times10^{-5}V_x+15\ \mu V$		
				33V～330V	$U=1.8\times10^{-5}V_x+0.15mV$		
				330V～1000V	$U=1.8\times10^{-5}V_x+1.5mV$		
		AC Current		1mV～33mV (10Hz～45Hz)	$U=8\times10^{-4}V_x+6\ \mu V$		
				1mV～33mV (45Hz～10kHz)	$U=1.5\times10^{-4}V_x+6\ \mu V$		
				1mV～33mV (10kHz～20kHz)	$U=2\times10^{-4}V_x+6\ \mu V$		
				1mV～33mV (20kHz～50kHz)	$U=1\times10^{-3}V_x+6\ \mu V$		
				1mV～33mV (50kHz～100kHz)	$U=3.5\times10^{-3}V_x+12\ \mu V$		
				33mV～330mV (10Hz～45Hz)	$U=3\times10^{-4}V_x+8\ \mu V$		
				33mV～330mV (45Hz～10kHz)	$U=1.3\times10^{-4}V_x+8\ \mu V$		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				33mV～330mV (10kHz～20kHz)	$U=1.5\times10^{-4}V_x+8\ \mu V$		
				33mV～330mV (20kHz～50kHz)	$U=3.5\times10^{-4}V_x+8\ \mu V$		
				33mV～330mV (50kHz～100kHz)	$U=8\times10^{-4}V_x+32\ \mu V$		
				0.33V～3.3V (10Hz～45Hz)	$U=3\times10^{-4}V_x+50\ \mu V$		
				0.33V～3.3V (45Hz～10kHz)	$U=1.2\times10^{-4}V_x+25\ \mu V$		
				0.33V～3.3V (10kHz～20kHz)	$U=1.9\times10^{-4}V_x+50\ \mu V$		
				0.33V～3.3V (20kHz～50kHz)	$U=3\times10^{-4}V_x+50\ \mu V$		
				0.33V～3.3V (50kHz～100kHz)	$U=7\times10^{-4}V_x+0.13mV$		
				3.3V～33V (10Hz～45Hz)	$U=3\times10^{-4}V_x+0.7mV$		
				3.3V～33V (45Hz～10kHz)	$U=1.2\times10^{-4}V_x+25\ \mu V$		
				3.3V～33V (10kHz～20kHz)	$U=2.4\times10^{-4}V_x+0.6mV$		
				3.3V～33V (20kHz～50kHz)	$U=3.5\times10^{-4}V_x+0.6mV$		
				3.3V～33V (50kHz～100kHz)	$U=9\times10^{-4}V_x+1.6mV$		
				33V～330V (45Hz～1kHz)	$U=1.9\times10^{-4}V_x+2mV$		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				33V～330V (1kHz～10kHz)	$U=2\times10^{-4}V_x+6mV$		
				33V～330V (10kHz～20kHz)	$U=2.5\times10^{-4}V_x+6mV$		
				33V～330V (20kHz～50kHz)	$U=3\times10^{-4}V_x+6mV$		
				33V～330V (50kHz～100kHz)	$U=2\times10^{-3}V_x+50mV$		
				330V～1000V (45Hz～1kHz)	$U=3\times10^{-4}V_x+10mV$		
				330V～1000V (1kHz～5kHz)	$U=2.5\times10^{-4}V_x+10mV$		
				330V～1000V (5kHz～10kHz)	$U=3\times10^{-4}V_x+10mV$		
		DC Current		1 μA～330 μA	$U=1.5\times10^{-4}I_x+0.02\ \mu A$		
				330 μA～3.3mA	$U=1\times10^{-4}I_x+0.03\ \mu A$		
				3.3mA～33mA	$U=1\times10^{-4}I_x+0.2\ \mu A$		
				33mA～330mA	$U=1\times10^{-4}I_x+2\ \mu A$		
				330mA～1.1A	$U=2\times10^{-4}I_x+40\ \mu A$		
				1.1A～3A	$U=3.8\times10^{-4}I_x+40\ \mu A$		
				3A～11A	$U=5\times10^{-4}I_x+0.33mA$		
				11A～20A	$U=1\times10^{-3}I_x+0.75mA$		
		AC Current		29 μA～330 μA (10Hz～20Hz)	$U=0.2\%I_x+1\ \mu A$		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				29 μA～330 μA (20Hz～1kHz)	U=0.15%I_x +0.1 μA		
				29 μA～330 μA (1kHz～5kHz)	U=0.3%I_x +0.15 μA		
				29 μA～330 μA (5kHz～30kHz)	U=0.8%I_x +0.2 μA		
				0.33mA～3.3mA (10Hz～20Hz)	U=0.2%I_x +15 μA		
				0.33mA～3.3mA (20Hz～1kHz)	U=0.13%I_x +0.15 μA		
				0.33mA～3.3mA (1kHz～5kHz)	U=0.2%I_x +0.2 μA		
				0.33mA～3.3mA (5kHz～10kHz)	U=0.5%I_x +0.3 μA		
				0.33mA～3.3mA (10kHz～30kHz)	U=1%I_x +0.6 μA		
				3.3mA～33mA (10Hz～45Hz)	U=0.18%I_x +2 μA		
				3.3mA～33mA (45Hz～1kHz)	U=0.4%I_x +2 μA		
				3.3mA～33mA (1kHz～5kHz)	U=0.1%I_x +2 μA		
				3.3mA～33mA (5kHz～10kHz)	U=0.2%I_x +3 μA		
				3.3mA～33mA (10kHz～30kHz)	U=0.4%I_x +4 μA		
				33mA～330mA (10Hz～45Hz)	U=0.18%I_x +20 μA		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				33mA～330mA (45Hz～1kHz)	U=0.4%I_x +20 μA		
				33mA～330mA (1kHz～5kHz)	U=0.1%I_x +50 μA		
				33mA～330mA (5kHz～10kHz)	U=0.2%I_x +0.1mA		
				33mA～330mA (10kHz～30kHz)	U=0.4%I_x +0.2mA		
				0.33A～3A (10Hz～45Hz)	U=0.18%I_x +0.1mA		
				0.33A～3A (45Hz～1kHz)	U=0.05%I_x +0.1mA		
				0.33A～3A (1kHz～5kHz)	U=0.6%I_x +0.1mA		
				0.33A～3A (5kHz～10kHz)	U=2.5%I_x +5mA		
				3A～11A (10Hz～45Hz)	U=0.06%I_x +2mA		
				3A～11A (45Hz～1kHz)	U=0.1%I_x +0.2mA		
				3A～11A (1kHz～5kHz)	U=3%I_x +2mA		
				11A～20A (10Hz～45Hz)	U=0.12%I_x +5mA		
				11A～20A (45Hz～1kHz)	U=0.15%I_x +5mA		
				11A～20A (1kHz～5kHz)	U=3%I_x +5mA		
		Resistance		1 Ω～11 Ω	$U=4\times10^{-5}R_x$		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				11 Ω ～33 Ω	$U=3\times10^{-5}R_x$		
				33 Ω ～110k Ω	$U=2.8\times10^{-5}R_x$		
				110k Ω ～1.1M Ω	$U=3.2\times10^{-5}R_x$		
				1.1M Ω ～3.3M Ω	$U=6\times10^{-5}R_x$		
				3.3M Ω ～11M Ω	$U=1.3\times10^{-4}R_x$		
				11M Ω ～33M Ω	$U=2.5\times10^{-4}R_x$		
				33M Ω ～110M Ω	$U=5\times10^{-4}R_x$		
				110M Ω ～330M Ω	$U=3\times10^{-3}R_x$		
				330M Ω ～1G Ω	$U=1.5\times10^{-2}R_x$		
11	*Voltmeters、Amperemeters、Analog resistance 、Wattmeters	DC Voltage	V.R.of Amperemeters,Voltmeters,Wattmeters and Ohmmeters JJG124	0.1mV～1mV	U=0.003mV		
				1mV～10mV	U=0.02mV		
				10mV～100mV	U=0.12mV		
				0.1V～1V	U=1.2mV		
				1V～10V	U=0.012V		
				10V～100V	U=0.12V		
				100V～1000V	U=1.2V		
		AC Voltage		0.1mV～10mV (45Hz～10kHz)	U=0.02mV		
				10mV～100mV (40Hz～10kHz)	U=0.12mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				0.1V～1V (40Hz～10kHz)	U=1.2mV		
				1V～10V (40Hz～10kHz)	U=0.012V		
				10V～100V (40Hz～10kHz)	U=0.12V		
				100V～1000V (40Hz～10kHz)	U=1.2V		
		DC Current		1μA～10μA	U=0.03μA		
				10μA～100μA	U=0.13μA		
				0.1mA～1mA	U=0.011mA		
				1mA～10mA	U=0.016mA		
				10mA～100mA	U=0.12mA		
				100mA～1A	U=1.2mA		
				1A～10A	U=0.012A		
				10A～20A	U=0.12A		
		AC Current		100μA～1mA(45Hz～1kHz)	U=0.003mA		
				100μA～1mA(1kHz～10kHz)	U=0.007mA		
				1mA～10mA(45Hz～1kHz)	U=0.05mA		
				1mA～10mA(1kHz～10kHz)	U=0.03mA		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				10mA～100mA (40Hz～10kHz)	U=0.12mA		
				100mA～1A (40Hz～10kHz)	U=1.2mA		
				1A～10A (40Hz～10kHz)	U=0.012A		
				10A～20A (40Hz～10kHz)	U=0.12A		
		resistance		1 Ω ～20M Ω	U_{rel}=0.3%		
		DC Power		(0.1～1000)W	U=1.2W		
				(1000～3000)W	U=4W		
				(3000～10000)W	U=15W		
				(10000～20000)W	U=34W		
		AC power		(0.1～1000)W (45Hz～65Hz)	U=1.4W		
				(1000～3000)W (45Hz～65Hz)	U=5W		
				(3000～10000)W (45Hz～65Hz)	U=19W		
				(10000～20000)W (45Hz～65Hz)	U=48W		
12	*VDR DC Parameter Testers	DC reference current	C.S.for VDR DC Parameter Testers JJF(Zhe)1088	(0～100) μ A	U=0.06%I_x+0.03 μ A		
				(0～1)mA	U=0.06%I_x+0.0003mA		
		Varistor voltage		(0～1000)V	U=0.6V		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(1000～1600)V	U_{rel}=0.06%		
		Leakage current		(1～100) μA	U=0.04%I_x+0.07 μA		
				(0.1～1)mA	U=0.04%I_x+0.0007mA		
13	*DC Stabilized Power Supplics	DC Voltage	C.S.for DC Stabilized Power Supplics JJF1597	100mV～1000V	U_{rel}=0.02%		
		DC Current		20mA～20A	U_{rel}=0.01%		
				20A～1000A	U_{rel}=0.03%		
		Load regulation		0.01%～1%	U=0.03%		
		Source regulation		0.01%～1%	U=0.03%		
		Ripple voltage		1mV～1V	U_{rel}=0.8%		
14	*Ac stabilized power supply (frequency conversion power supply)	AC Voltage	V.R. of AC S tandard Current S ources JJG(MI)70,V.R.of AC Standard Voltage Source JJG(MI)71,C.S for Stable Character of AC Voltage Stable Source JJF(MI）85	10V～120V (40Hz～1kHz)	U_{rel}=0.03%		
				120V～1000V (40Hz～1kHz)	U_{rel}=0.06%		
		AC Current		0.2A～2A (50Hz～400Hz)	U_{rel}=0.14%		
				2A～20A (50Hz～400Hz)	U_{rel}=0.14%		
		Frequency		50Hz～400Hz	U_{rel}=0.03%		
				400Hz～10kHz	U_{rel}=0.03%		
		Load regulation		0.1%～5%(50Hz～400Hz)	U=0.3%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Source regulation		0.1%～5% (50Hz～400Hz)	U=0.5%		
		THD		0.01%～30%	U_{rel}=5%		
15	*D.C. Low Resistance Meter	Resistance	V.R.of D.C. Low Resistance Meter JJG837	1mΩ～10mΩ	U_{rel}=0.2%		
				10mΩ～100mΩ	U_{rel}=0.1%		
				100mΩ～1Ω	U_{rel}=0.1%		
				1Ω～10Ω	U_{rel}=0.02%		
				20Ω～200Ω	U=0.020%Rx+0.011Ω		
				0.2kΩ～2kΩ	U=0.020%Rx+0.11Ω		
				2kΩ～20kΩ	U=0.020%Rx+1.1Ω		
				20kΩ～200kΩ	U=0.020%Rx+11Ω		
				0.2MΩ～<1.1MΩ	U=0.020%Rx+30Ω		
16	*D.C.Resistance Box	Resistance	V.R.of D.C.Resistance Box JJG982	(0.1～10)Ω	U=0.42mΩ		
				(10～100)Ω	U=4.2mΩ		
				(0.1～1)kΩ	U=0.013Ω		
				(1～10)kΩ	U=0.13Ω		
				(10～100)kΩ	U=1.3Ω		
				(0.1～1)MΩ	U=0.021kΩ		
				(1～10)MΩ	U=0.84kΩ		
		Resistance		(0.1～1000)mΩ	U=0.13mΩ		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
17	*Earth Resistance Meter	Resistance	V.R.of Earth Resistance Meter JJG366	1 Ω～1000 Ω	U_{rel}=0.6%		
18	*Earth-Continuity Testers	Resistance	V.R.of Earth-Continuity Testers JJG984	10m Ω ～600m Ω	U_{rel}=0.3%		
		Current		1A～50A	U_{rel}=0.4%		
19	*Electrolytic Capacitor Leakage Current Teste	DC Current	V.R.of Electrolytic Capacitor Leakage Current Tester JJG(Elec)306003	100 μ A～200 μ A	U_{rel}=0.06%		
				200 μ A～2mA	U_{rel}=0.04%		
				2mA～100mA	U_{rel}=0.03%		
		DC Voltage		10V～100V	U_{rel}=0.06%		
				100V～1000V	U_{rel}=0.1%		
20	*Withstanding Voltage Tester	High Voltage	V.R.of Withstanding Voltage Tester JJG795	DC：0.5kV～15kV	U_{rel}=0.4%		
				AC：0.5kV～15kV	U_{rel}=0.7%		
		Current		DC：0.5mA～200mA	U_{rel}=0.5%		
		Current		AC：0.5mA～200mA	U_{rel}=0.6%		
		Time		1s～20s	U=0.1s		
				20s～999s	U_{rel}=0.5%		
21	*Cable Testers	On Resistance	C.S.for Cable Testers JJF1457	1 Ω ～50k Ω	U_{rel}=1.3%		
		Insulation Resistance		100k Ω ～500M Ω	U_{rel}=1.8%		
		DC Voltage		10V～1500V	U_{rel}=0.22%		
		AC Voltage		10V～1500V (45Hz～65Hz)	U_{rel}=0.5%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
					U_{rel}=0.2%		
22	*Digital AC Electircal Parameters Meter	AC Power	Verification Regulation of AC Digital Powermeter JJG780,Calibration Specification for Multimeters JJF 1587	1W～3.3W (45Hz～1kHz)	U_{rel}=0.16%		
				3.3W～33W(45Hz～1kHz)	U_{rel}=0.13%		
				33W～330W(45Hz～1kHz)	U_{rel}=0.13%		
				330W～3kW(45Hz～1kHz)	U_{rel}=0.08%		
				3kW～11kW(45Hz～1kHz)	U_{rel}=0.13%		
				11kW～20kW(45Hz～1kHz)	U_{rel}=0.21%		
		AC Voltage		3.3V～33V(45Hz～1kHz)	U_{rel}=0.02%		
				33V～330V(45Hz～1kHz)	U_{rel}=0.03%		
				330V～1020V(45Hz～1kHz)	U_{rel}=0.04%		
		AC Current		1mA～3.3mA (45Hz～1kHz)	U_{rel}=0.14%		
				3.3mA～33mA(45Hz～1kHz)	U_{rel}=0.15%		
				33mA～330mA(45Hz～1kHz)	U_{rel}=0.15%		
				0.33A～3A(45Hz～1kHz)	U_{rel}=0.08%		
				3A～11A(45Hz～1kHz)	U_{rel}=0.12%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				11A～20A(45Hz～1kHz)	U_{rel}=0.2%		
23	*Leakage Current Instrument and Meter	DC Voltage	V.R.of Leakage Current Instrument and Meter JJG843	10V～1000V	U_{rel}=0.05%		
		DC Current		0.1mA～1mA	U_{rel}=0.07%		
				1mA～100mA	U_{rel}=0.05%		
		AC Voltage		10V～1000V （45Hz～65Hz）	U_{rel}=0.12%		
		AC Current		0.1mA～1mA （45Hz～65Hz）	U_{rel}=0.4%		
				1mA～100mA （45Hz～65Hz）	U_{rel}=0.3%		
		Input Resistance		200Ω～2.5kΩ	U_{rel}=0.12%		
24	*Clamp Ammeters	DC Current	C.S.for Clamp Ammeters JJF1075	1A～1000A	U_{rel}=0.4%		
		AC Current		1A～1000A （45Hz～65Hz）	U_{rel}=0.5%		
25	*DC Electronic Load	Current	C.S.for DC Electronic Load JJF1462	220mA～2.2A	U_{rel}=0.03%	The constant voltage is only 60V	
				2.2A～20A	U_{rel}=0.03%		
				20A～300A	U_{rel}=0.11%		
		Voltage		20mV～220mV	U_{rel}=0.04%		
				220mV～1000V	U_{rel}=0.03%		
		Power		0.1W～1kW	U_{rel}=0.12%		
		Resistance		(0.1～100)Ω	U_{rel}=0.06%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(0.1～100)kΩ	U_{rel}=0.02%		
26	*DC Potentiometers	DC Voltage	V.R.of DC Potentiometers JJG123	1μV～2.1111V	U_{rel}=0.01%		
27	*Insulation Resistance Meter	Resistance	V.R.of Insulation Resistance Meter JJG622	100Ω～11MΩ	U_{rel}=0.5%		
				11MΩ～110MΩ	U_{rel}=1%		
				110MΩ～1100MΩ	U_{rel}=2%		
				1.1GΩ～11GΩ	U_{rel}=5%		
				11GΩ～200GΩ	U_{rel}=7%		
		Voltage		10V～5000V	U_{rel}=0.4%		
28	*DC Bridges	Resistance	V.R.of DC Bridges JJG125	1Ω～100kΩ	U_{rel}=0.04%		
				100kΩ～1MΩ	U_{rel}=0.1%		
29	*Electronic Insulating Resistance Meters	Resistance	V.R.of Electronic Insulating Resistance Meters JJG1005	100Ω～11MΩ	U_{rel}=0.3%		
				11MΩ～110MΩ	U_{rel}=0.6%		
				110MΩ～1100MΩ	U_{rel}=1.2%		
				1.1GΩ～11GΩ	U_{rel}=2.2%		
				11GΩ～200GΩ	U_{rel}=7%		
		Voltage		10V～5000V	U_{rel}=0.4%		
30	*Safety Pameter Tester	Voltage（withstand voltage）	C.S for safety Pameter tester JJF(JJF (Elec) 0004)0004	DC：0.5kV～10kV	U_{rel}=0.4%		
				AC：0.5kV～10kV	U_{rel}=0.7%		
		Current（		DC：0.5mA～200mA	U_{rel}=0.5%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		withstand voltage）		AC：0.5mA～200mA	U_{rel}=0.6%		
		Duration of withstand voltage		1s～20s	U=0.1s		
				20s～999s	U_{rel}=0.5%		
		Insulation resistance		100Ω～11MΩ	U_{rel}=0.3%		
				11MΩ～110MΩ	U_{rel}=0.6%		
				110MΩ～1100MΩ	U_{rel}=1.2%		
				1.1GΩ～11GΩ	U_{rel}=2.2%		
				11GΩ～200GΩ	U_{rel}=7%		
		VoltageInsulation test voltage		10V～5000V	U_{rel}=0.4%		
		Grounding on resistance		10mΩ～100mΩ	U_{rel}=0.7%		
				100mΩ～600mΩ	U_{rel}=0.3%		
		Ground conduction current		1A～50A	U_{rel}=0.4%		
		Leakage test DC Voltage		10V～1000V	U_{rel}=0.05%		
		AC VoltageLeakage test AC voltage		10V～1000V （45Hz～65Hz）	U_{rel}=0.12%		
		DC Leakage Current		0.1mA～1mA	U_{rel}=0.07%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				1mA～100mA	U_{rel}=0.05%		
		AC Leakage Current		0.1mA～1mA （45Hz～65Hz）	U_{rel}=0.4%		
				1mA～100mA （45Hz～65Hz）	U_{rel}=0.3%		
31	*High Insulation Resistance meters	Resistance	V.R.of High Insulation Resistance meters JJG690	1.0GΩ～11GΩ	U_{rel}=2.2%		
				11GΩ～200GΩ	U_{rel}=7%		
		Voltage		10V～5000V	U_{rel}=0.7%		
32	*Wire Spark Tester	Voltage	V.R.of wire Spark Tester JJG(Su)74	DC(1～50)kV	U_{rel}=0.7%		
				AC(1～50)kV	U_{rel}=1.3%		
		Electrode Length		(0～150)mm	U=0.020mm		
33	*Static voltage meter	DC Voltage	V.R .for Static voltage meter JJG494	(1～50)kV	U_{rel}=0.35%		
		AC Voltage		1kV～50kV （50Hz～60Hz）	U_{rel}=0.5%		
34	*Loop Resistance Tester	Resistance	V.R.of Loop Resistance Tester and DC Resistance Meters JJG1052	0.01mΩ～0.1mΩ	U_{rel}=0.5%		
				0.1mΩ～20mΩ	U_{rel}=0.05%		
		Current		50A～100A	U_{rel}=0.60%		
35	*Digital AC Electircal Parameters Meter	AC Current	C.S.for Digital AC Electircal Parameters Meter JJF1491	3.3mA～330mA （45Hz～65Hz）	U_{rel}=0.15%		
				0.33A～3A（45Hz～65Hz）	U_{rel}=0.09%		
				3A～11A（45Hz～65Hz）	U_{rel}=0.13%		

The scope of the accreditation in Chinese remains the definitive version.

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				11A～20A（45Hz～65Hz）	U_{rel}=0.2%		
		AC Voltage		30V～480V（45Hz～65Hz）	U_{rel}=0.05%		
		Phase		-180°～180°	U=0.5°		
		Frequency		(45～60)Hz	U_{rel}=1.5×10^{-4}		
		Power		0.1W～3.3W（45Hz～65Hz）	U_{rel}=0.16%		
				3.3W～11kW（45Hz～65Hz）	U_{rel}=0.13%		
				11kW～22kW（45Hz～65Hz）	U_{rel}=0.22%		
36	*Number of turns instrument	Turns	C.S.for Coil Number Testing Instructing JJF(Zhe)1065	(0～11110)匝	U=1T		
37	*Clamp Earth Resistance Meters	Resistance	V.R.of Clamp Earth Resistance Meters JJG1054	(0.1～1) Ω	U_{rel}=2.3%		
				(1～10) Ω	U_{rel}=0.72%		
				(10～100) Ω	U_{rel}=0.26%		
				(100～1000) Ω	U_{rel}=0.21%		
38	*Magnetic Particle Flaw Detectors	DC Current	C.S.for Magnetic Particle Flaw Detectors JJF1273	(0.1～10000)A	U_{rel}=2.0%		
		AC Current		(1～10000)A，(45Hz～65Hz)	U_{rel}=5%		
39	*Magnetic Yoke Detectors	Current	C.S for Magnetic Yoke Detectors JJF1458	(0.1～50)A	U_{rel}=4.0%		
		Force		(5～300)N	U_{rel}=1.2%		
			V.R.of DC Standard Voltage	20mV～200mV	U_{rel}=0.0009%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
	calibrator		Source JJF 1638,Calibration specification of calibrators for electrical meters JJF1284	200mV～1000V	U_{rel}=0.001%		
		DC Current		20μA～200μA	U_{rel}=0.008%		
				200μA～200mA	U_{rel}=0.008%		
				200mA～1A	U_{rel}=0.03%		
		AC Voltage		60mV～200mV（10Hz～40Hz）	U=0.017%Vx+4μV		
				200mV～2V（10Hz～40Hz）	U=0.012%Vx+20μV		
				2V～20V（10Hz～40Hz）	U=0.012%Vx+0.2mV		
				20V～200V（10Hz～40Hz）	U=0.012%Vx+2mV		
				200V～1000V（10Hz～40Hz）	U=0.012%Vx+20mV		
				60mV～200mV（40Hz～100Hz）	U=0.015%Vx+4μV		
				200mV～2V（40Hz～100Hz）	U=0.010%Vx+20μV		
				2V～20V（40Hz～100Hz）	U=0.030%Vx+0.2mV		
				20V～200V（40Hz～100Hz）	U=0.06%Vx+ 2mV		
				200V～1000V（40Hz～100Hz）	U=0.080Vx%+20mV		
				60mV～200mV（100Hz～2kHz）	U=0.05%Vx+ 2μV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				200mV～2V（100Hz～2kHz）	U=0.03%Vx+ 20 μ V		
				2V～20V（100Hz～2kHz）	U=0.04%Vx+ 0.2mV		
				20V～200V（100Hz～2kHz）	U=0.08%Vx+ 2mV		
				200V～1000V（100Hz～2kHz）	U=1.0%Vx+ 20mV		
				60mV～200mV（2kHz～10kHz）	U=0.05%Vx+ 4 μ V		
				200mV～2V（2kHz～10kHz）	U=0.03%Vx+ 20 μ V		
				2V～20V（2kHz～10kHz）	U=0.05%Vx+ 0.2mV		
				20V～200V（2kHz～10kHz）	U=0.08%Vx+ 2mV		
				200V～1000V（2kHz～10kHz）	U=1.0%Vx+ 20mV		
				60mV～200mV（10kHz～30kHz）	U=0.2%Vx+ 8 μ V		
				200mV～2V（10kHz～30kHz）	U=0.05%Vx+ 40 μ V		
				2V～20V（10kHz～30kHz）	U=0.06%Vx+ 0.4mV		
				20V～200V（10kHz～30kHz）	U=0.20%Vx+ 4mV		
				200V～1000V（10kHz～30kHz）	U=0.3%Vx+ 40mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				60mV～200mV（30kHz～100kHz）	U=0.09%Vx+ 20 μ V		
				200mV～2V（30kHz～100kHz）	U=0.10%Vx+ 0.2mV		
				2V～20V（30kHz～100kHz）	U=0.20%Vx+ 2mV		
				20V～200V（30kHz～100kHz）	U=0.30%Vx+ 20mV		
				200V～1000V（30kHz～100kHz）	U=0.40%Vx+0.2V		
				200mV～2V（100kHz～300kHz）	U=0.4%Vx+ 2mV		
				2V～20V（100kHz～300kHz）	U=0.5%Vx+ 20mV		
				200mV～2V（300kHz～1MHz）	U=1.2%Vx+ 20mV		
				2V～20V（300kHz～1MHz）	U=2.0%Vx+0.2V		
		AC Current		20 μ A～200 μ A（20Hz～100Hz）	U=0.07%Ix+ 0.02 μ A		
				200 μ A～2mA（20Hz～100Hz）	U=0.03%Ix+ 0.2 μ A		
				2mA～20mA（20Hz～100Hz）	U=0.03%Ix+ 2 μ A		
				20mA～<200mA（20Hz～100Hz）	U=0.03%Ix+ 20 μ A		
				200mA～1A（20Hz～100Hz）	U=0.07%Ix+ 0.2mA		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				20μA～200μA（100Hz～5kHz）	U=0.08%Ix+ 0.02μA		
				200μA～2mA（100Hz～5kHz）	U=0.04%Ix+ 0.2μA		
				2mA～20mA（100Hz～5kHz）	U=0.04%Ix+ 2μA		
				20mA～200mA（100Hz～5kHz）	U=0.04%Ix+ 20μA		
				200mA～1A（100Hz～5kHz）	U=0.08%Ix+ 0.2mA		
		Resistance		1Ω～2Ω	U=0.003%Rx+0.004mΩ		
				2Ω～10Ω	U=0.002%Rx+0.014mΩ		
				10Ω～100Ω	U=0.002%Rx+0.05mΩ		
				100Ω～1kΩ	U=0.0012%Rx+0.5mΩ		
				1kΩ～10kΩ	U=0.0014%Rx+5mΩ		
				10kΩ～100kΩ	U=0.0016%Rx+50mΩ		
				100kΩ～1MΩ	U=0.0020%Rx+1Ω		
				1MΩ～10MΩ	U=0.008%Rx+10Ω		
				10MΩ～100MΩ	U=0.08%Rx+ 1kΩ		
				200MΩ～1GΩ	U=0.8%Rx+ 100kΩ		
		Frequency		1Hz～50Hz	U_{rel}=0.07%		
				50Hz～1MHz	U_{rel}=0.02%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
41	*Charge & Discharge of Battery Tester	Voltage	C.S.for Charge & Discharge of Battery Tester JJF(MI)108	(1～10)V	U=0.0012V		
				(10～1000)V	U=0.014V		
		Current		(10～100)mA	U=0.051mA		
				(100～1000)mA	U=0.50mA		
				(1～2)A	U_{rel}=0.04%		
				(2～20)A	U_{rel}=0.02%		
				(20～200)A	U_{rel}=0.03%		
				(200～1000)A	U_{rel}=0.06%		
		Resistance		100mΩ～10Ω	U_{rel}= 0.07%		
				10Ω～1kΩ	U_{rel}=0.19%		
		Power		（0.01～1)W	U_{rel}=0.13%		
				（1～1000)W	U_{rel}=0.024%		
				（1～10)kW	U_{rel}=0.035%		
		Discharge capacity		0.1Ah～1Ah	U=0.0012Ah		
				1Ah～10Ah	U=0.0031Ah		
				10Ah～1kAh	U_{rel}=0.03%		
		Rise time		10μs～10ms	U_{rel}=0.24%		
42	*Wrist Strap and Footwear Tester	Resistance	C.S.for Wrist Strap and Footwear Tester JJF(Elec)31502	100kΩ～500MΩ	U_{rel}=1.5%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
43	*Testers for Relaying Protection	DC Voltage	V.R.of Testers for Relaying Protection JJG1112	(0.2～20)V	U_{rel}=0.024%		
				(20～200)V	U_{rel}=0.01%		
				(200～1000)V	U_{rel}=0.007%		
		DC Current		(10～200)mA	U_{rel}=0.023%		
				(200～2000)mA	U_{rel}=0.07%		
				(2～20)A	U_{rel}=0.07%		
				(20～200)A	U_{rel}=0.081%		
				(200～1000)A	U_{rel}=0.06%		
		AC Voltage		（0.2～20）V (45Hz～65Hz)	U_{rel}=0.25%		
				（20～200）V (45Hz～65Hz)	U_{rel}=0.25%		
				（200～500）V (45Hz～65Hz)	U_{rel}=0.14%		
		AC Current		（10mA～10A）(45Hz～65Hz)	U_{rel}=0.5%		
				（10～200）A (45Hz～65Hz)	U_{rel}=1.7%		
				（200～1000）A (45Hz～65Hz)	U_{rel}=1.2%		
44	*Resistivity Measuring Instruments with Four 一 Probe Array Method	Resistivity	C.S.of Resistivity Measuring Instruments with Four 一 Probe Array Method JJG 508	(0.01～180) Ω•cm	U_{rel}=1.5%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
45	*DC Resistance Meters	Resistance	V.R.of Loop Resistance Tester and DC Resistance Meters JJG1052	(2～20)mΩ	U_{rel}=0.08%		
				(0.02～20)Ω	U_{rel}=0.02%		
				(0.02～20)kΩ	U_{rel}=0.02%		
		Current		(0.001～50)A	U_{rel}=0.02%		
46	*Current transformer	Ratio difference	V.R.of Instrument Current Transformers JJG313	(5～1000)A/5A 50Hz/60Hz	U_{rel}=0.03%		
		Phase difference		(0～500.0)′ 50Hz/60Hz	U=1.6′		
47	*Voltage transformer	Ratio difference	V.R.of Instrument Voltage Transformers JJG314,V.R.of Instrument Transformers in Power System JJG1021	(10kV/100V) 50Hz/60Hz	U_{rel}=0.03%		
		Phase difference		(0～500.0)′ 50Hz/60Hz	U=1.4′		
48	*Burden Box of Instrument Transformers	Admittance	C.S.for Burden Box of Instrument Transformers JJF1264	(0.0001～20.0)mS	U_{rel}=2.4%		
		Impedance		(0.0001～20.0)Ω	U_{rel}=2.4%		
49	Ultrasonic Flaw Detector	attenuation	V.R.of Ultrasonic Flaw Detector JJG746	(0～80)dB	U=0.4dB		
		Vertical Linearity		0.1%～100%,(2.5～10)MHz	U_{rel}=6.8%		
		Horizontal Linear		0.1%～100%,(2.5～10)MHz	U_{rel}=0.8%		
		Maximum Sensitivity		(300～450)μV	U_{rel}=2.3%		
50	*X-ray Flaw Detectors	Kerna Rate	V.R.of X-ray Flaw Detectors JJG 40	(1.0～1000)cGy/min	U_{rel}=5%		
		Time		(1～3600)s	U=0.04s		
		Radiation Angle		1° ～90°	U=0.5°		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
51	*Eddy Current Flaw Detector	Frequency	V.R.of Eddy Current Flaw Detector JJG(MH) 0061	10Hz～10MHz	U_{rel}=0.3%		
		Voltage		10mV～10V	U_{rel}=0.6%		
52	*Enthalpy Potential Testing Apparatus	AC voltage	C.S for Enthalpy Potential Testing Apparatus JJF(JX)1005	(50～450)V (45Hz～65Hz)	U_{rel}=0.15%		
		AC current		(0.5～100)A (45Hz～65Hz)	U_{rel}=0.15%		
		AC power		(0.01～20)kW (45～65)Hz	U_{rel}=0.15%		
				(20～60)kW (45Hz～65Hz)	U_{rel}=0.23%		
		Frequency		(45～65)Hz	U_{rel}=0.03%		
		electric energy		0.001kWh～45 kWh (45Hz～65Hz)	U_{rel}=0.23%		
		Distortion		(0.1～3)%	U_{rel}=0.04%		
		Power factor		(0～1.0）	U=0.0013		
		Platinum resistance temperature		(-40～150)℃	U=0.04℃		
		Thermocouple temperature		(-40～300)℃	U=0.2℃		
		relative humidity		(10～95)%RH	U=1.5%RH		
		Pressure		(-0.1～15)MPa	U=0.1%FS		
		水压差 水压差 Water pressure difference		(0.1～400)kPa	U=0.1%FS		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Atmospheric pressure		(800～1100)hPa	U=0.3 hPa		
		wind speed		(5～10)m/s	U_{rel}=3.2%		
		Micro differential pressure		(1～2000)Pa	U=2.0Pa		
		speed		(30～20000) r/min	U_{rel}=0.3%		
		mass flow		(0.1～40)t/h	U_{rel}=0.4%		
		Volume flow		(0.1～40)m^3/h	U_{rel}=0.4%		
		Working condition temperature		(-40～100)℃	U=0.4℃		
		Working condition relative humidity		(20～95)%RH	U=1.8%RH		
		Nozzle size		(5～300)mm	U=0.018mm		
53	*Commercial Food Freezers Testing Apparatus	AC voltage	C.S for Commercial Food Freezers Testing Apparatus JJF(JX)1021	(50～450)V (45Hz～65Hz)	U_{rel}=0.15%		
		AC current		(0.1～20)A (45Hz～65Hz)	U_{rel}=0.23%		
		AC power		(0.01～20)kW (45Hz～65Hz)	U_{rel}=0.15%		
				(20～40)kW (45Hz～65Hz)	U_{rel}=0.13%		
		Frequency		(45～65)Hz	U_{rel}=0.03%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		electric energy		0.01kWh～8 kWh (45Hz～65Hz)	U_{rel}=0.23%		
		Distortion		(0.1～10)%	U_{rel}=0.04%		
		power factor		(0～1.0）	U=0.0013		
		Platinum resistance temperature		(-40～150)℃	U=0.04℃		
		Thermocouple resistance temperature system		(-40～300)℃	U=0.2℃		
		Relative humidity sensor		(10～90)%RH	U=1.5%RH		
		Pressure		(-0.1～6)MPa	U=0.1%FS		
		wind speed		(1～10)m/s	U_{rel}=3.2%		
		Illuminance		(20～3000)lx	U_{rel}=5%		
		Working condition temperature		(-40～100)℃	U=0.3℃		
		Working condition relative humidity		(20～95)%RH	U=1.8%		
54	*Motor comprehensive performance tester	High Voltage	C.S for Motor Comprehensive Performance Tester JJF(Zhe)1184	AC:0.5kV～5kV	U_{rel}=0.8%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Current（withstand voltage）		AC:0.5mA～200mA	U_{rel}=0.6%		
		Duration of withstand voltage		1s～20s	U=0.1s		
				20s～999s	U_{rel}=0.5%		
		Insulation resistance		1MΩ～11MΩ	U_{rel}=0.3%		
				11MΩ～110MΩ	U_{rel}=0.6%		
				110MΩ～1100MΩ	U_{rel}=1.2%		
		VoltageVoltageInsulation test voltage		10V～5000V	U_{rel}=0.4%		
		AC Power		1W～3.3W (45Hz～65Hz)	U_{rel}=0.16%		
				3.3W～33W (45Hz～65Hz)	U_{rel}=0.13%		
				33W～330W (45Hz～65Hz)	U_{rel}=0.13%		
				330W～3kW (45Hz～65Hz)	U_{rel}=0.08%		
				3kW～11kW (45Hz～65Hz)	U_{rel}=0.13%		
				11kW～20kW (45Hz～65Hz)	U_{rel}=0.21%		
		AC voltage		3.3V～33V (45Hz～65Hz)	U_{rel}=0.02%		
				33V～330V (45Hz～65Hz)	U_{rel}=0.03%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				330V～750V (45Hz～65Hz)	U_{rel}=0.04%		
		AC current		0.33A～3A (45Hz～65Hz)	U_{rel}=0.08%		
				3A～11A (45Hz～65Hz)	U_{rel}=0.12%		
				11A～20A (45Hz～65Hz)	U_{rel}=0.2%		
		Peak voltage		(0.01～5)kV	U_{rel}=2.3%		
		Resistance		10mΩ～100mΩ	U_{rel}=0.1%		
				100mΩ～1Ω	U_{rel}=0.05%		
				1Ω～2kΩ	U_{rel}=0.03%		
55	*Spark tester for wire and cable	Voltage	C.S for spark tester for wire and cable JJF(Mec)1047	(1～15)kV（500Hz～300kHz）	U_{rel}=3%		
		Frequency		500Hz～300kHz	U_{rel}=0.2%		
Radio							
1	Oscilloscope Calibrator	Voltage	V.R.of Oscilloscope Calibrator JJG278	1mV～200V	U_{rel}=0.21%		
		Time scale		0.5ns～10s	$U_{rel}=1\times10^{-9}$		
		Rising Time		210ps～50ns	U_{rel}=7%		
		sinusoidal wave amplitude		5mV～5.5V(Peak-Peak)	U_{rel}=0.3%		
		sinusoidal wave frequency		0.1Hz～3.2GHz	$U_{rel}=1.2\times10^{-7}$		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
2	High Volitage Probes of Oscilloscope	Voltage Damping ratio	C.S.for High Volitage Probes of Oscilloscope JJF(Elec)30304	DC:1～1000 (1V～20kV）	U_{rel}=0.6%		
				AC:1～1000 (50V～5kV)	U_{rel}=0.6%		
3	Power indicator	Power	C.S of Power Meters JJF 1757	3 μ W～100mW(-25dBm～+20dBm)	U_{rel}=0.32%		
4	*Passive Intermodulation Analyzers	Output frequency	C.S.for Passive Intermodulation Analyzers JJF1463	10Hz～6GHz	U_{rel}=2×10^{-7}		
		Output power		(0～50)dBm（150kHz～6GHz）	U=0.6dB		
		Passive intermodulation		(-50～-140)dBm	U=0.3dB		
5	*Digital Storage Oscilloscop	Bandwidth	C.S.of Digital Storage Oscilloscop JJF1057,Verification Regulation for digital oscilloscope GJB7691	10MHz～3000MHz	U_{rel}=1.7%		
		Time		1ns～10s	U_{rel}=0.5%		
		Voltage		1mV～2V	U_{rel}=0.6%		
				2V～100V	U_{rel}=0.5%		
		Rise time		0.25ns～1s	U_{rel}=6.9%		
6	*Network Analyzers	Frequency	C.S.for Vector Network Analyzers JJF1495	10Hz～20GHz	U_{rel}=3.5×10^{-7}		
		Power level		-70dBm～+20dBm(150kHz～18GHz)	U=0.6dB		
		Attenuation		20dB（50MHz～18GHz）	U=0.02dB		
		VSWR		2.0(925MHz～960MHz)	U_{rel}=5%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
7	*Bluetooth Test Set	Output frequency	C.S.for Bluetooth Test Set JJF1278	2.402GHz～2.480GHz	U_{rel}=3.5×10^{-7}		
		Output level		-90dBm～0dBm(2.402GHz～2.480GHz)	U=0.57dB		
		Harmonic		2th：(0～80)dBc	U=2.5dB		
				3th：(0～80)dBc	U=2.5dB		
		Phase noise		-142dBc/Hz～-70dBc/Hz	U=2.5dB		
		Power measurement		-70dBm～22dBm	U=0.40dB		
		Frequency measurement		2.402GHz～2.480GHz	U_{rel}=3.5×10^{-7}		
8	*Semiconductor Device Curve Tracer	X axis voltage	C.S.for Semiconductor Device Curve Tracer JJF1236	10mV～1000V	U_{rel}=0.5%		
		Y axis current		1μA～50A	U_{rel}=0.5%		
		X-step voltage		50mV～50V	U_{rel}=2.5%		
		Y step current		0.2μA～2A	U_{rel}=2.5%		
9	*LF Electronic Voltmeter	Voltage(base error)	V.R.of LF Electronic Voltmeter JJG782	10mV～300V (1kHz)	U_{rel}=0.6%		
		Voltage(frequency additional error)		1V (20Hz～450kHz)	U_{rel}=0.6%		
10	*RLC meter	Resistance	V.R.for wide range digital RLC meter GJB8817	1Ω～100Ω，(1kHz)	U_{rel}=0.14%	resistance,inductance,capacitanc only	
				100Ω～1MΩ，(1kHz)	U_{rel}=0.04%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Inductance		1μH～100mH,（1kHz）	U_{rel}=0.13%	at 1kHz frequency	
		Capacitor		100pF～1μF,（1kHz）	U_{rel}=0.13%		
				1μF～100μF,（1kHz）	U_{rel}=0.06%		
		Frequency		100Hz～1MHz	U_{rel}=0.002%		
11	*Component automatic analyzer	Resistance	V.R.for wide range digital RLC meter GJB8817	1Ω～100kΩ	U_{rel}=0.1%		
				100kΩ～1MΩ	U_{rel}=0.04%		
		Inductance		1μH～100mH（1kHz)	U_{rel}=0.13%		
		Capacitor		100pF～1μF (1kHz)	U_{rel}=0.13%		
				1μF～100μF (1kHz)	U_{rel}=0.06%		
		Frequency		100Hz～1MHz	U_{rel}=0.002%		
12	*Standard Capacitors	Capacitor	V.R.of Standard Capacitors JJG183	1pF～100μF（100Hz～1MHz）	U_{rel}=0.15%		
				100μF～100mF（100Hz～1MHz）	U_{rel}=0.11%		
13	*Standard Inductors	Inductance	V.R.of Standard Inductors JJG726	10μH～100H(100Hz～1MHz)	U_{rel}=0.1%		
14	*Analogue Oscilloscope	Bandwidth	V.R.of Analogue Oscilloscope JJG262	10Hz～300MHz	U_{rel}=2.3%		
		Time		2ns～10s	U_{rel}=0.4%		
		Voltage		2mV～200V	U_{rel}=1.2%		
		Risetime		5.4ns～100ns	U=0.35ns		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
15	*Low frequency signal generator	Frequency	V.R.of Low frequency signal generator JJG602	10Hz～1MHz	U_{rel}=3.5×10^{-7}		
		Voltage		10mV～300V (10Hz～50kHz)	U_{rel}=0.75%		
				10mV～300V (50kHz～100kHz)	U_{rel}=1.6%		
		Attenuation		0dB～60dB (10Hz～100kHz)	U=0.06dB		
		Distortion		0.001%～30% (10Hz～20kHz)	U_{rel}=6.7%		
				0.001%～30% (20kHz～100kHz)	U_{rel}=9.4%		
16	*Function Generators	Frequency	V.R.of Function Generators JJG 840	10Hz～100MHz	U_{rel}=3.5×10^{-7}		
		Voltage		10mV～10V (10Hz～100MHz)	U_{rel}=0.3%		
		Rising Time		210ps～50ns	U_{rel}=7%		
17	*Signal Generator	Frequency	V.R.of Signal Generator JJG173	0.15MHz～18GHz	U_{rel}=2×10^{-7}		
		Level		13dBm～-127dBm (150kHz～1.3GHz)	U=0.50dB		
				(-70～20)dBm (1.3～18)GHz	U=0.60dB		
		Modulation		AM：(10%～<40%) (fc：150kHz～<10MHz；AF：400Hz，1kHz)	U_{rel}=2.4%		
				AM：(10%～<40%) (fc：10MHz～1.3GHz；AF：400Hz，1kHz)	U_{rel}=1.2%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				AM：(40～99)% (fc：150kHz～<10MHz；AF：400Hz，1kHz)	U_{rel}=1.2%		
				AM：(40～99)% (fc：10MHz～1.3GHz；AF：400Hz，1kHz)	U_{rel}=1.3%		
		Frequency Offset		Δf：(5～400)kHz (fc：250kHz～<10MHz； AF：400Hz，1kHz)	U_{rel}=2.4%		
				Δf：(5～400)kHz (fc：10MHz～1.3GHz； AF：400Hz，1kHz)	U_{rel}=1.4%		
		Phase modulation phase deviation		1rad～40rad(fc:0.25MHz～10MHz;fm:200Hz～10kHz)	U_{rel}=4.6%		
				1rad～40rad(fc:10MHz～1.3GHz;fm:200Hz～20kHz)	U_{rel}=3.5%		
18	Telephone Analyzer	Feed-Voltage	C.S for Telephone Analyzer JJF(Elec)30702	(10～100)V	U_{rel}=0.08%		
		Feeding current		(10～150)mA	U_{rel}=0.20%		
		Ringing voltage		(10～150)V	U_{rel}=0.20%		
		Level		(-50～0)dBm	U=0.20dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Signal Frequency		1Hz～20kHz	U_{rel}=0.35%		
19	*Low frequency impedance analysis instrument	Frequency	V.R.of HP4192A low frequency impedance analysis instrument JJG(Elec)05007	1Hz～10MHz	U_{rel}=0.10%		
		Impedance		100Ω～100kΩ	U_{rel}=0.50%		
20	*Noise signal generator	Frequency	V.R.of Audio-frequency Signal Generators JJG607	20Hz～20kHz	U_{rel}=3.5×10^{-7}		
		Voltage		0.1V～30V (20Hz～20kHz)	U_{rel}=0.10%		
21	Pulse power meter	Power	V.R.of Pulse power meter JJG1024	10μW～200mW (0.1MHz～18GHz)	U_{rel}=2.3%		
		VSWR		1～∞ (100kHz～8.5GHz)	U_{rel}=5.0%		
		linearity		(0～70)dB (0.1MHz～18GHz)	U=0.26dB		
		Rise time		5.4ns～100ns	U=0.35ns		
22	Power sensor	Calibration Factor	V.R.of Small power seat GJB/J3598	-20dBm～10dBm (10MHz～18GHz)	U_{rel}=2.0%		
		VSWR		1～∞ (100kHz～8.5GHz)	U_{rel}=5.0%		
23	Attenuator	Attenuator	V.R.of Coaxial Attenuator JJG387	(0～50)dB（150kHz～1.3GHz）	U=0.2dB/10dB		
				(50～80)dB（150kHz～1.3GHz）	U=0.8dB/10dB		
				(0～50)dB（1.3GHz～20GHz）	U=0.3dB/10dB		
				(50～80)dB（1.3GHz～20GHz）	U=0.9dB/10dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		VSWR		1～∞ (100kHz～8.5GHz)	U_{rel}=5.0%		
24	*Arbitary Waveform Generator	Frequency	C.S of Arbitary Waveform Generator JJF1152	1Hz～1GHz	$U_{rel}=3.5\times10^{-7}$		
		Voltage		10mV～12mV(1Hz～1GHz)	U_{rel}=1.5%		
				12mV～20V (1Hz～1GHz)	U_{rel}=0.9%		
		Rise time		210ps～50ns	U_{rel}=7%		
25	*Distortion Meter Calibrator	THD	C.S for Distortion Meters JJF 1852	0.05%～0.1%(10Hz～200kHz)	U_{rel}=12%		
				0.1%～0.3(10Hz～200kHz)	U_{rel}=5%		
				0.3%～99%(10Hz～200kHz)	U_{rel}=3%		
		Ac voltage		10mV～300V,(20Hz～200kHz)	U_{rel}=0.40%		
26	*Audio Analyzers	Source voltage (audio source)	C.S.for Audio Analyzers JJF1395	10mV～300V (10Hz～100kHz)	U_{rel}=1.5%		
		Voltage (analyzer)		10mV～300V (10Hz～100kHz)	U_{rel}=0.2%		
		Distortion degree (analyzer)		0.05%～0.1% (10Hz～100kHz)	U_{rel}=12%		
				0.1%～0.3% (10Hz～100kHz)	U_{rel}=5%		
				0.3%～99% (10Hz～100kHz)	U_{rel}=3%		
		Frequency (analyzer)		10Hz～200kHz	U_{rel}=0.02%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
27	*Spectrum Analyzers	Frequency	C.S.for Spectrum Analyzers JJF1396	9kHz～20GHz	U_{rel}= 4.0×10^{-6}		
		Level		-110dBm～10dBm	U=0.48dB		
		SWEEP WIDTH		9kHz～20GHz	U_{rel}=1.0%		
		vertical display scale		(10～50)dB（100kHz～18GHz）	U=0.17dB		
				60dB（100kHz～18GHz）	U=0.32dB		
				70dB（100kHz～18GHz）	U=0.43dB		
				80dB（100kHz～18GHz）	U=0.52dB		
		frequency response		100kHz～20GHz	U=0.37dB		
		resolution bandwidth		300Hz～2MHz	U_{rel}=2.3%		
28	*RF Communication Test Set	Frequency	C.S.for RF Communication Test Set JJF1065	0.15MHz～1GHz	U_{rel}= 6.0×10^{-7}		
		Level		Output：-127dBm～13dBm(150kHz～1GHz)	U=0.40dB		
				Measure：-70dBm～10dBm (0.15MHz～1GHz)	U=0.50dB		
		AM		Output AM：(10%～40%) (fc：150kHz～10MHz；AF：400Hz，1kHz)	U_{rel}=2.4%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				Output AM：(10%～40%)(fc：10MHz～1GHz； AF：400Hz，1kHz)	U_{rel}=1.2%		
				Output AM：(40～99)% (fc：150kHz～10MHz；AF：400Hz，1kHz)	U_{rel}=2.5%		
				Output AM：(40～99)% (fc：10MHz～1GHz； AF：400Hz，1kHz)	U_{rel}=1.3%		
				Measure AM：(10%～40%)(fc：150kHz～10MHz；AF：400Hz，1kHz)	U_{rel}=2.4%		
				Measure AM：(10%～40%)(fc：10MHz～1000MHz；AF：400Hz，1kHz)	U_{rel}=2.2%		
				Measure AM：(40～99)%(fc：150kHz～10MHz；AF：400Hz，1kHz)	U_{rel}=2.5%		
				Measure AM：(40～99)%(fc：10MHz～1000MHz；AF：400Hz，1kHz)	U_{rel}=1.3%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		FM		Output Δ f：(5～400)kHz(fc：250kHz～10MHz；AF：400Hz，1kHz)	U_{rel}=2.4%		
		Frequency Offset		Output Δ f：(5～400)kHz(fc：10MHz～1GHz；AF：400Hz，1kHz)	U_{rel}=1.4%		
				Measure Δ f：(5～99)kHz(fc：250kHz～10MHz；AF：400Hz，1kHz)	U_{rel}=2.4%		
				Measure Δ f：(5～99)kHz(fc：10MHz～1000MHz；AF：400Hz，1kHz)	U_{rel}=1.4%		
29	*RF Impedance/Materoal Analyzers	Frequency	C.S.for RF Impedance/Materoal Analyzers JJF1127	100kHz～3GHz	U_{rel}= 4.0×10^{-7}		
		Level		0.2mV～1V (150kHz～1.3GHz)	U=0.5dB		
				0.2mV～1V (1.3～3）GHz	U=0.5dB		
		Impedance		50Ω (100kHz～3GHz)	U=0.2Ω		
30	*Wireless LAN tester	Output Frequency	C.S.for WLAN Test Set JJF1277	2.412GHz～5.825GHz	U_{rel}= 2.4×10^{-8}		
		Output Level		-90dBm～-10dBm	U=(0.22～0.5)dB		
		Amplitude EVM		(0.1～10)%	U_{rel}=1.2%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Vector amplitude measurement of pilot error		(-10～-70)dB	U=0.16dB		
		Data error vector amplitude measurement		(-10～-70)dB	U=0.16dB		
		Frequency error measurement		（-1～+1）MHz	U=10Hz		
		Symbol clock error measure		(-100～+100)×10^{-6}	U_{rel}=1.4×10^{-7}		
31	*Digital Radio Communication Testers	frequency	C.S.of CDMA Digital Radio Communication Testers JJF1177,C.S. for TD-SCDMA Digital Radio Communication Testers JJF1204,C.S.for WCDMA Digital Radio Communication Testers JJF1276,C.S. for TDMA(GSM) Digital Radio Communication Testers JJF1131,C.S. for LTE Digital Radio Communication Testers JJF1443	0.03GHz～4GHz	U_{rel}=6.0×10^{-8}		
		Output signal two and three harmonics		(0～80)dBc(150kHz～6GHz)	U=2.0dB		
		harmonic		(0～80)dBc(150kHz～6GHz)	U=2.0dB		
		Non-Harmonic		(-127～30)dBm	U=2.3dB		
		Single side band phase noise		(-127～30)dBm	U=2.0dBc/Hz		
		Rho		0.9～1.0	U=0.0010		
		EVM		0.1%～5%	U=2.0%		
		Bandwidth		(1.23～1.28) MHz	U=0.018MHz		
		Analysis Rho		0.9～1.0	U=0.0008		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Analysis EVM		1.5%～50%	U=1.5%		
		Single generator Frequency error		0Hz～200kHz	U=15Hz		
		Single generator Phase error		0.6° ～60°	U=0.8°		
		CDP		(0.1～50)dB	U=0.5dB		
		analysis Frequency		0Hz～200kHz	U=15Hz		
		analysis Phase		0.6° ～20°	U=0.8°		
		ACPR		(0～80)dB	U=0.7dB		
		Audio generator Frequency		50Hz～5kHz	U=0.005Hz		
		Audio generator Level		(50～5000)mV （1kHz)	U_{rel}=0.8%		
		Audio generator Distortion		(0.001～100)%(50Hz～200kHz；50mV～5000mV)	U=0.6%		
		audio analysis frequency		50Hz～5kHz	U=0.008Hz		
		Audio generator level		(5～5000)mV	U_{rel}=1.0%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Audio generator Distortion		0.1%～50%(50Hz～200kHz)(5～5000)mV	U_{rel}=0.6%		
		Analysis Power		(+30～0)dBm,150kHz～1.3GHz	U=0.32dB		
				(0～-50)dBm,150kHz～1.3GHz	U=0.16dB+0.005dB/(10dB)		
				(-50～-90) dBm150kHz～1.3GHz	U=0.22dB+0.015dB/(10dB)		
				(-90～-120)dBm,150kHz～1.3GHz	U=0.31dB+0.04dB/(10dB)		
				(+30～0)dBm(1.3～26.5)GHz	U=0.32dB		
				(0～-50)dBm(1.3～26.5)GHz	U=0.28dB+0.005dB/(10dB)		
				(-50～-80) dBm(1.3～26.5)GHz	U=0.32dB+0.01dB/(10dB)		
				(-80～-100)dBm(1.3～26.5)GHz	U=0.44dB+0.03dB/(10dB)		
		ACPR		（0～-80）dB	U=0.92dB		
		Spectrum Emission Mask		frequency offse≤4MHz，BW: 30kHz～1MHz	U=1.3dB		
		IQ Origin Offset		(-10～-70)dB	U=1dB		
		Power		(+30～0)dBm150kHz～1.3GHz	U=0.34dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(0～-50)dBm150kHz～1.3GHz	U=0.31dB+0.005dB/(10dB)		
				(-50～-90) dBm150kHz～1.3GHz	U=0.35dB+0.015dB/(10dB)		
				(-90～-100)dBm150kHz～1.3GHz	U=0.40dB+0.04dB/(10dB)		
				(+30～0)dBm(1.3～26.5)GHz	U=0.47dB		
				(0～-50)dBm(1.3～26.5)GHz	U=0.45dB+0.005dB/(10dB)		
				(-50～-80) dBm(1.3～26.5)GHz	U=0.47dB+0.01dB/(10dB)		
				(-80～-100)dBm(1.3～26.5)GHz	U=0.54dB+0.02dB/(10dB)		
		SWR		1～4 (100kHz～8.5GHz)	U=0.04		
32	*Voltage Dips,Short Interruptions and Voltage Variations Test Generators	Voltage	C.S for Voltage Dips,Short Interruptions and Voltage Variations Test Generators JJF1673	(1～400)V	U_{rel}=3.6%		
		Risetime		0.7ns～1s	U_{rel}=6.9%		
33	*Pulse Generators	Voltage	V.R.of Pulse Generators JJG490	10mV～100mV(1kHz)	U_{rel}=0.095%～0.028%		
				100mV～1V(1kHz)	U_{rel}=0.027%		
				1V～10V(1kHz)	U_{rel}=0.022%		
				10V～100V(1kHz)	U_{rel}=0.026%		
				100V～200V(1kHz)	U_{rel}=0.039%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Frequency		20Hz～1GHz	U_{rel}=1.0×10^{-7}		
		pulse width		0.5ns～100ns	U_{rel}=0.8%		
				100ns～50ms	U_{rel}=1.5%		
		Rising Time		210ps～50ns	U_{rel}=7%		
34	Dynamical Signal Analyzer	Frequency	V.R.of Dynamical Signal Analyzer JJG834	10Hz～200kHz	U_{rel}=4×10^{-7}		
		Amplitude		(0.1～5)V(10～40)Hz	U_{rel}=0.02%		
				(0.1～5)V(>40～100)Hz	U_{rel}=0.03%		
				(0.1～5)V(>100Hz～2kHz)	U_{rel}=0.04%		
				(0.1～5)V(>2～10)kHz	U_{rel}=0.04%		
				(0.1～5)V(>10～30)kHz	U_{rel}=0.04%		
				(0.1～5)V(>30～100)kHz	U_{rel}=0.08%		
				(0.1～5)V(>100～200)kHz	U_{rel}=0.10%		
35	*Electrical Fast Transient/Burst Simulators	Voltage	C.S for Electrical Fast Transient/Burst Simulators JJF1672	0.1kV～4kV	U_{rel}=3.5%		
		Pulse Width		0.5ns～10s	U_{rel}=6%		
		Rise Time		0.7ns～1s	U_{rel}=5%		
36	*Voltage Probe for Oscilloscope	Attenuation Coefficient	C.S.for Voltage Probe for Oscilloscope JJF1437	1～1000	U_{rel}=0.1%		
		Frequency Response		(0～3)dB(9kHz～3.2GHz)	U=1dB		
		Risetime		0.7ns～1s	U_{rel}=5%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		input resistance		(0.1～10)MΩ	U_{rel}=0.3%		
				(10～100)MΩ	U_{rel}=1.0%		
37	*Current Probes of Oscilloscope	Attenuation Coefficient	C.S.for Current Probes of Oscilloscope JJF(Elec)30305	1～1000	U_{rel}=2%		
		Ac current		(0.1～1000)A(1kHz)	U_{rel}=3.3%		
		Dc current		(0.1～1000)A	U_{rel}=1.8%		
		Frequency Bandwidth		50kHz～120MHz	U_{rel}=4.2%		
		Risetime		0.7ns～1s	U_{rel}=5%		
38	Electrostatic Discharge Generator	Discharge voltage	C.S for Electrostatic Discharge Generator JJF1397	(0.1～15)kV	U_{rel}=3%		
		Discharge current		(0.1～30)A	U_{rel}=5%		
		Discharge rise time		(0.7～1)ns	U_{rel}=10%		
39	*Electrical Surge Generator	Open-Circuit Voltage	V.R.of Electrical Surge Generator JJF(Elec)30803	(0.5～6)kV	U_{rel}=4%		
		short-circuit current		(0.25～3)kA	U_{rel}=4%		
		Time		(1.2～50)μs	U_{rel}=5%		
40	*Vector Signal Generators	Crystal Oscillator	C.S.for Vector Signal Generators JJF1174	10MHz	$U_{rel}=3\times10^{-10}$(Outer Ref.)7×10^{-7}(Inner Ref.)		
		Frequency		150kHz～20GHz	$U_{rel}=3\times10^{-10}$(Outer Ref.);7×10^{-7}(Inner Ref.)		
		Out put Level		(30～>0)dBm,(150kHz～1.3GHz)	U=0.57dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				(0～>-50)dBm,(150kHz～1.3GHz)	U=0.16dB+0.005dB/(10dB)		
				(-50～>-90)dBm,(150kHz～1.3GHz)	U=0.22dB+0.015dB/(10dB)		
				(-90～-127)dBm,(150kHz～1.3GHz)	U=0.31dB+0.04dB/(10dB)		
				(+30～0)dBm,(>1.3GHz～26.5GHz)	U=0.32dB		
				(0～>-50)dBm,(>1.3GHz～26.5GHz)	U=0.44dB+0.03dB/(10dB)		
				(-50～>-80)dBm,(>1.3GHz～26.5GHz)	U=0.32dB+0.01dB/(10dB)		
				(-80～-100)dBm,(>1.3GHz～26.5GHz)	U=0.44dB+0.03dB/(10dB)		
		SSB Phase Noise		≥-150dBc/Hz FREQ:20Hz～50GHz,Deviation:0.01Hz～1MHz	U=2.1dB		
				≥-150dBc/Hz FREQ:20Hz～50GHz,Deviation:1MHz～40MHz	U=4dB		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Internally modulated signal frequency		5Hz～1MHz	$U_{rel}=7\times10^{-9}$		
		Internal modulation signal level		1mV～10mV,(40Hz～1kHz)	$U_{rel}=0.04\%$		
				1mV～10mV,(>1kHz～20kHz)	$U_{rel}=0.05\%$		
				1mV～10mV,(>20kHz～50kHz)	$U_{rel}=0.14\%$		
				1mV～10mV,(>50kHz～100kHz)	$U_{rel}=0.6\%$		
				1mV～10mV,(>100kHz～300kHz)	$U_{rel}=4.7\%$		
				10mV～10V,(40Hz～1kHz)	$U_{rel}=0.02\%$		
				10mV～10V,（>1kHz～20kHz)	$U_{rel}=0.02\%$		
				10mV～10V,(>20kHz～50kHz)	$U_{rel}=0.04\%$		
				10mV～10V,(>50kHz～100kHz)	$U_{rel}=0.11\%$		
				10mV～10V,(>100kHz～300kHz)	$U_{rel}=0.36\%$		
		AM		5%～99%(f_c:150kHz～10MHz;f_m: 50Hz～10kHz)	$U_{rel}=2.3\%$		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				5%～99%(f_c:10MHz～1.3GHz;f_m: 50Hz～50kHz)	U_{rel}=1.2%		
				5%～99%(f_c:150kHz～26.5GHz;f_m: 20Hz～50Hz)	U_{rel}=3.5%		
				5%～99%(f_c:1.3GHz～26.5Hz;f_m: 50Hz～50kHz)	U_{rel}=1.7%		
		FM Freaquency Deviation		1kHz～400kHz(f_c: 0.25MHz～10MHz;f_m: 20Hz～10kHz)	U_{rel}=2.3%		
				1kHz～400kHz(f_c: 10MHz～26.5Hz;f_m: 20Hz～50Hz)	U_{rel}=5.8%		
				1kHz～400kHz(f_c: 10MHz～26.5Hz;f_m: 50Hz～100kHz)	U_{rel}=1.2%		
				1kHz～400kHz(f_c: 10MHz～26.5Hz;f_m: 100kHz～200kHz)	U_{rel}=5.8%		
		Phase Deviation		1rad～40rad(f_c: 0.25MHz～10MHz;f_m: 200Hz～10kHz)	U_{rel}=4.6%		
				1rad～40rad(f_c: 10MHz～26.5Hz;f_m: 200Hz～20kHz)	U_{rel}=3.5%		
		EVM		0.3%～10%	U_{rel}=0.58%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Phase Error		0.6° ～5°	U=0.58°		
		Rho		0～1	U_{rel}=0.11%		
		Frequency Error		（-1～+1）MHz	U=8Hz		
		FSK Error		0.01%～2%	U_{rel}=1.7%		
Time and frequency							
1	Crystal Oscillators inside the Electrical Measuring Instruments	Frequency	V.R.of Crystal Oscillators inside the Electrical Measuring Instruments JJG180	1MHz、5MHz、10MHz	U_{rel}= 1.0×10^{-9}		
2	Stopwatches	Time	V.R.of Stopwatches JJG237	Electronic stopwatch:0.01s～3600s	U=0.01s		
				Electronic stopwatch：1h～24h	U=0.02s		
				Mechanical stopwatch:1s～30s	U=0.1s		
				Mechanical stopwatch:30s～3600s	U=0.2s		
3	Electronic time relay	Time	C.S.for Electronic time relay JJF1282	1ms～9999s	U_{rel}=1.0×10^{-5}		
4	*Universal Counters	Frequency	V.R.of Universal Counters JJG349	20Hz～18GHz	U_{rel}=1.0×10^{-9}		
5	*Frequency Meter	Frequency	V.R.of Frequency Meter JJG603	10Hz～20kHz	U_{rel}=8×10^{-5}		
Chemistry							
1	*Liquid Chromatographs	Minimum Detectable	V.R.of Liquid Chromatographs JJG705	VWD：≤5×10^{-8}g/mL	U_{rel}=8%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Concentration		DAD：≤5×10^{-8}g/mL	U_{rel}=8%		
				FLD：≤5×10^{-9}g/mL	U_{rel}=8%		
				RID:≤5×10^{-6}g/mL	U_{rel}=10%		
				ELSD：≤5×10^{-6}g/mL	U_{rel}=10%		
		Wavelength		Uv - visible detector：(235～350)nm	U=0.3nm		
		Temperature		（0～95)℃	U=0.3℃		
		Flux		（0.1～10）mL/min	U_{rel}=0.3%		
2	*Hand Saccharimeter(Content-meter) and Hand Refractometer	Sugar levels（content）	V.R.of Hand Saccharimeter(Content-meter) and Hand Refractometer JJG820	(0～99)%	U=0.2%		
		Refractive index		nD：1.3300～1.5200	U=0.0004		
3	*Verificating Meter for pH Meters	Voltage	V.R.of Verificating Meter for pH Meters JJG919	(-2000～2000)mV	U=0.003%FS		
4	*Electrolytic Conductivity Meters	Electrical conductivity	V.R.of Electrolytic Conductivity Meters JJG376	Electric meter：(0.1～1×10^4) μS/cm	U_{rel}=0.3%		
				Instruments：(20～2000) μS/cm	U_{rel}=0.5%		
5	*Laboratory pH Meters	pH	V.R.of pH(acidity) Meters JJG119	Electric Meter：(0～14)pH	U=0.01pH		
				Instruments：(0～14)pH	U=0.02pH		
		Potential		(-2000～2000)mV	U=0.1mV		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
6	*On-line pH Meters	Acidity	C.S.for On-line pH Meters JJF1547	Electric Meter：(0～14)pH	U=0.01pH		
				Instruments：(0～14)pH	U=0.02pH		
		Potential		(-2000～2000)mV	U=0.1mV		
7	Dissolved Oxygen Meters	Concentration	V.R.of Dissolved Oxygen Meters JJG291	(0.1～15)mg/L	U=0.07mg/L		
8	*Automatic Potentiometric Titrators	Potential	V.R.of Automatic Potentiometric Titrator JJG814	(-2000～2000)mV	U=0.1 mV		
		Concentration		0.1mol/L	U_{rel}=1%		
		Capacity		(1～10)mL	U=0.004mL		
				(>10～50)mL	U=0.01mL		
9	*Instrument for KF Coulometry Titration	Moisture Content	V.R.of Instrument for KF Coulometry Titration JJG1044	(10～5000) μg	U_{rel}=1.5%		
10	Rotational Viscometers	Viscosity	V.R.of Rotational Viscometers JJG1002	(1～1.5×10^5)mPa·s	U_{rel}=2.2%		
11	Flow Cups Viscometer	Viscosity	V.R.of Flow Cups Viscometer JJG743	(7～685)mm^2/s	U_{rel}=3%		
		Time		(5～100)s	U=0.2s		
		correction factor		0.9～1.1	U_{rel}=1.0%		
12	Engler Viscosimeter	Water value	V.R.of Engler Viscosimeter JJG742	(50～52)s	U=0.2s		
13	Routine Capillary Viscometer	Viscosity	V.R.of Routine Capillary Viscometer JJG155	(1～1×10^5) mm^2/s	U_{rel}=(0.32～0.86）%		
14	*Osmometers	Osmolality	V.R.of Osmometers JJG1089	(50～750)mOsmol/kg	U=(1.7～3.3) mOsmol/kg		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
15	Wood Moisture Content Measuring Meters	Moisture Content	V.R.of Wood Moisture Content Measuring Meters JJG986	(6～28)%	U=0.5%		
16	*Gas Chromatorgraph	Sensitivity	V.R.of Gas Chromatorgraph JJG700	TCD：≥ 800mV·mL/mg	U_{rel}=5%		
		Detection Limit		FID：≤0.5 ng/s	U_{rel}=10%		
				ECD：≤5 pg/mL	U_{rel}=10%		
				FPD：P≤0.1ng/s；S≤ 0.5ng/s	U_{rel}=10%		
				NPD：N≤5pg/s；P≤ 10pg/s	U_{rel}=10%		
		Velocity of flow		（0.1～100）mL/min	U_{rel}=1.2%		
		Temperature		（5～300）℃	U=0.5℃		
17	*Atomic Absorption Spectrophotometers	Detection Limit	V.R.of Atomic Absorption Spectrophotometers JJG694	Cu：≤0.02 μg/mL	U=0.005 μg/mL		
				Cd：≤4pg	U=0.3pg		
18	*Ion Chromatographs	Minimum detectable concentration	V.R.of Ion Chromatographs JJG823	Conductivity Detector:≤ 0.02 μg/mL	U_{rel}=5%		
19	*Gas Chromatography-Mass Spectrometries	Singnal-to-noise ratio	C.S.for Gas Chromatography-Mass Spectrometries JJF1164	IT、SQ、TQ：≥10:1； TOF、EOT：≥50:1	U_{rel}=10%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
20	*Liquid Chromatography - Mass Spectrometers	Singnal-to-noise ratio	C.S.for Liquid Chromatography - mass Spectrometry Instrument JJF1317	Triple quadrupole（ESI+，APCI+）：≥30：1，Triple quadrupole（ESI-）：≥10：1，Single quadrupole、ion trap：≥10：1	U_{rel}=11%		
21	Airborne Particle Counter	Particle Concentration	C.S.for Airborne Particle Counter JJF1190	(1000～100000)count/28.3L	U_{rel}=16%		
		Particle distribution		（0.3～1.0）μm	U_{rel}=12%		
		Flow Speed		(1～30)L/min	U_{rel}=2%		
		Time		（1～60）min	U=0.3s		
22	*Static Light Scattering Particle Size Analyzers	Particle Size	C.S for Static Light Scattering Particle Size Analyzers JJF1211	(1～5) μm	U=0.22 μm		
				(＞5～20) μm	U=0.5 μm		
				(＞20～100) μm	U=0.7 μm		
23	*Fourier Transform Infrared Spectrometers	Wave number	C.S.for Fourier Transform Infrared Spectrometers JJF1319	(4000～400) cm^{-1}	U=0.7 cm^{-1}		
24	*Fluorescence Spectrophotometer	Detection Limit	V.R.of Fluorescence spectrophotometer JJG537	A type：≤5×10^{-10}g/mL	U_{rel}=4%		
				B type：1×10^{-8}g/mL	U_{rel}=4%		
25	*Atomic Fluorescence Spentrophotometers	Detection Limit	V.R.of Atomic Fluorescence Spectrophotometers JJG939	As：≤0.4ng	U=0.10ng		
				Sb：≤0.4ng	U=0.10ng		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
26	*Wavelength Dispersive X-ray Fluorescence Spectrometers	Count Rate	V.R.of Wavelength Dispersive X-ray Fluorescence Spectrometers JJG810	(50～100)%	U_{rel}=5%		
27	*Total Organic Carbon Analyzer	Concentration	V.R.of Total Organic Carbon Analyzer JJG821	（0.1～1000）mg/L	U_{rel}=3%		
28	*Polarimeter and Polarimetric Saccharimeters	Optical Activity	V.R.of Polarimeter and Polarimetric Saccharimeters JJG536	(-45~45)°	U=0.005°		
		Rotatory sugar content		(-20～+105)° Z	U=0.02° Z		
29	*Turbidimeters	Turbidity	V.R.of Turbidimeters JJG880	（0.1～400）NTU	U_{rel}=3.6%		
30	*Eddy Current Conductivity Meters	Electroconductibility	C.S.for Eddy Current Conductivity Meters JJF1692	（0.58～59）MS/m	U=（0.12～0.38）MS/m		
31	*Carbon-sulfur Analyzers	Content	V.R. of Carbon-Sulfur Analyzers JJG395	C: 0.005%～0.010%	U=0.001%		
				C: >0.010%～0.100%	U=0.002%		
				C: >0.100%～1.00%	U=0.004%		
				C: >1.00%～4.00%	U=0.03%		
				S: 0.003%～0.010%	U=0.0006%		
				S: >0.010%～0.100%	U=0.002%		
				S: >0.100%～0.200%	U=0.004%		
32	*Quadrupole Inductively Coupled Plasma Mass Spectrometers	Detection Limit	C.S.for Quadrupole Inductively Coupled Plasma Mass Spectrometers JJF1159	Be：≤10 μg/L	U=6.0ng/L		
				In：≤10 μg/L	U=1.3ng/L		
				Bi：≤10 μg/L	U=2.2ng/L		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
33	*On-line Automatic Determinator of Chemical Oxygen Demand(COD)	Concentration	V.R.of On-line Automatic Determinator of Chemical Oxygen Demand(COD) JJG1012	(16～1000)mg/L	U_{rel}=4%		
34	*Ultraviolet,Visible Spectrophotometers	Wave Length	V.R.of Ultraviolet,Visible,Near-Infrared Spectrophotometers JJG178	(195～800)nm	U=0.5nm		
				(900～2000)nm	U=0.8nm		
		Transmittance		Ultraviolet,Visible region(0～100)%	U=0.4%		
				Near-Infrared region(0～100)%	U=0.8%		
35	*Ionometers	Ion concentration	V.R.of Ionometers JJG757	(0～14)pX	U=0.01pX		
		Electric potential		（-2000～2000）mV	U=0.1 mV		
36	*Analyzers for Oil Content in Water	Concentration	V.R.of Analyzers for Oil Content in Water JJG950	(0～10)mg/L	U=0.24mg/L		
				(>10～1000)mg/L	U_{rel}=3.8%		
37	*Chemical oxygen demand （COD)meters	Concentration	V.R.of Chemical Oxygen Demand （COD)Metersr JJG975	(5～1000)mg/L	U_{rel}=4%		
		Temperature		(100～200)℃	U=0.5℃		
		Time		（5～120）min	U=1s		
38	*Coal ash analyzers	Temperature	C.S.for Coal Ash Analyzers JJF(Yu)204	DT：(1200～1400)℃	U=30℃		
				ST：(1300～1500)℃	U=18℃		
				HT：(1300～1500)℃	U=23℃		
				FT：(1400～1500)℃	U=30℃		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
39	*Water colorimeters	Chroma	C.S.for Water Colorimeters JJF1689	（0.1～500）PCU	U_{rel}=3.7%		
40	*Residual chlorine meters	Concentration	C.S.for Residual Chlorine Meters JJF1609	(0.5～50)mg/L	U_{rel}=2.0%		
41	*On-line conductivity meters	Conductivity	C.S. for On-line Conductivity Meters JJF(Xin)19	Electric meter：(0.1～1×10⁴) μS/cm	U_{rel}=0.4%		
				Instrument：(20～2000) μS/cm	U_{rel}=0.8%		
42	*Capillary electrophoresis instrument	Wavelength	V.R.of Capillary Electrophoresis Instrument JJG964	(235～350)nm	U=0.7nm		
		Detection limit		≤1×10⁻⁶g/mL	U_{rel}=7%		
43	*Emission spectrometer	Detection Limit	V.R.of Emission Spectrometer JJG768	ICP spectrometer for Zn：≤0.01mg/	U=0.002mg/L		
				ICP spectrometer for Ni：≤0.03mg/L	U=0.007mg/L		
				ICP spectrometer for Mn：≤0.005mg/L	U=0.001mg/L		
				ICP spectrometer for Cr：≤0.02mg/L	U=0.003mg/L		
				ICP spectrometer for Cu：≤0.02mg/L	U=0.006mg/L		
				ICP spectrometer for Ba：≤0.005mg/L	U=0.001mg/L		
		Detection Limit		Direct-reading pectrometer for C：≤0.02%	U=0.002%		
				Direct-reading pectrometer for Si：≤0.02%	U=0.002%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
				Direct-reading pectrometer for Mn：≤ 0.02%	U=0.0012%		
				Direct-reading pectrometer for Cr：≤ 0.01%	U=0.0008%		
				Direct-reading pectrometer for Ni：≤ 0.02%	U=0.0012%		
				Direct-reading pectrometer for V：≤ 0.01%	U=0.0005%		
		Wavelength		ICP spectrometer:（190～800）nm	U=0.01nm		
44	*Flame photometer	Detectability	V.R.of Flame Photometer JJG630	K：≤0.004mmol/L	U=0.001mmol/L		
				Na：≤0.008mmol/L	U=0.002mmol/L		
45	*Energy dispersive X-ray fluorescence spectrometers	content	C.S. for Energy Dispersive X-Ray Fluorescence Spectrometers JJF(Min)1047	Cd in plastic：(5～120)mg/kg	U_{rel}=6%		
				Cr in plastic：(40～1200)mg/kg	U_{rel}=6%		
				Hg in plastic：(40～1200)mg/kg	U_{rel}=6%		
				Pb in plastic：(40～1200)mg/kg	U_{rel}=6%		
				Metal：0.02%～100%	U_{rel}=6%		
46	*Alarmer Detectors of Combustible	Gas concentration	V.R.of Alarmer Detectors of Combustible Gas JJG 693	(5～100)%LEL	U_{rel}=1.5%		
		Time		(1～60)s	U=1.2s		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
47	*Electrochemical Oxygen Meter	Gas concentration	V.R.of Electrochemical Oxygen Meter JJG 365	(0.1～100)%	U_{rel}=0.9%		
		Time		(1～120)s	U=1.2s		
48	*Micro Oxygen Analyzers	Gas concentration	V.R.of Micro Oxygen Analyzers JJG 945	(100～1000) μ mol/mol	U_{rel}=1.2%		
		Time		(1～60)s	U=1.2s		
49	*Oxygen Index Instrument	Gas concentration	V.R.of Oxygen Index Instrument JJG(war industry) 16	(20～50)%	U_{rel}=1.6%		
		Flow		（0.01～100）L/min	U_{rel}=1.5%		
		Oxygen Index		(10～20)%	U_{rel}=2.1%		
				(＞20～35)%	U_{rel}=3.1%		
				(＞35～50)%	U_{rel}=4.1%		
50	*Microorganism Samplers	Flow	C.S. for Air Microorganism Samplers JJF 1826	(1～200)L/min	U_{rel}=1.2%		
		Time		(0.1～60)min	U=0.2s		
51	*Air Samplers	Flow	V.R.of Air Samplers JJG 956	(0.1～6.0)L/min	U_{rel}=1.3%		
		Time		(0.01～10)h	U=0.2s		
		Temperature		(10～50) ℃	U=0.2 ℃		
52	*Dust Sampler	Flow	V.R.of Dust Sampler JJG 520	(0.1～5)L/min	U_{rel}=1.3%		
				(＞5～100)L/min	U_{rel}=1.5%		
		Time		(0.1～60)min	U=0.2s		
53	*Flue Gas Samplers	Flow	V.R.of Flue Gas Samplers JJG 1169	(0.1～2)L/min	U_{rel}=1.3%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Temperature		(10～50) ℃	U=0.2℃		
		Pressure		Atmospheric pressure：（80～106)kPa	U=0.3kPa		
				Pressure before gauge：（-40～0)kPa	U=0.2kPa		
		Time		(0.1～60)min	U=0.2s		
54	*Particulate Analyzer	Sample volume	C.S. for Particulate Analyzer JJF 1290	(0.01～10)mL	U_{rel}=0.4%		
		Particle counting		(10～100000) ea/mL	U_{rel}=6.0%		
55	*Liquid-borne Particle Counters	Sample volume	V.R.for Liquid-borne Particle Counters JJG 1061	(1～50)mL	U_{rel}=0.4%		
		Particle counting		(10～100000)ea/mL	U_{rel}=5%		
		Particle size		(1～50) μm	U_{rel}=4%		
56	*Thin Layer Chromatography Scanners	Content	C.S. for Thin Layer Chromatography Scanners JJF 1712	（0.01～0.5）mg/mL	U=0.0019mg/L		
57	*Chlorine analyzer	Content	C.S. for chlorine analyzer JJF(Min) 1098	（0.00001-0.0001）mol/L	U_{rel}=3.5%		
				（＞0.0001-0.1）mol/L	U_{rel}=3.5%		
		Potential		(-2000～2000)mV	U=0.1mV		
		Temperature		(150～300)℃	U=0.5℃		
		Time		(10～15)min	U=0.6s		
		Flow		(0～200)mL/min	U=1.3%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
58	*Total Dissolved Solids （TDS） Meters	Temperature	C.S. for Total Dissolved Solids （TDS）Meters JJF（Min）1097	(5～50)℃	U=0.2℃		
		TDS		（1～1000)mg/L	U_{rel}=0.4%		
59	Total Organic Carbon Analyzer With Conductivity Measurement	Content	V.R.of Total Organic Carbon Analyzer With Conductivity Measurement JJF(Zhe) 98	（0.1～2.5）mg/L	U_{rel}=3%		
60	*Ammonia-Nitrogen Automatic Analyzers	Content	V.R.of Ammonia-Nitrogen Automatic Analyzers JJG 631	(0.1～500)mg/L	U_{rel}=4%		
61	*Water Quality On-line Analyzers of Total Phosphorus and Total Nitrogen	Content	V.R.of Water Quality On-line Analyzers of Total Phosphorus and Total Nitrogen JJG 1094	TP：（0.01～50）mg/L	U_{rel}=4.2%		
				TN：（0.1～100）mg/L	U_{rel}=3.5%		
62	*Total Nitrogen Analyzers	Temperature	C.S. for Total Nitrogen Analyzers JJF(Min) 1114	(100～200)℃	U=0.5℃		
		Time		(5～120)min	U=1.2s		
		Content		（0.1～100）mg/L	U_{rel}=3%		
63	*Total Phosphorus Analyzers	Temperature	C.S. for Total Phosphorus Analyzers JJF(Min) 1113	(100～200)℃	U=0.5℃		
		Time		(5～120)min	U=1.2s		
		Content		（0.1～100）mg/L	U_{rel}=3.5%		
64	*Elemental Analyzers	Oxygen content	C.S. for Elemental Analyzers JJF1321	Oxygen, nitrogen and hydrogen analyzer （O）：0.0013%～0.0174%	U_{rel}=（3.2～8.6）%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Hydrogen content		Oxygen, nitrogen and hydrogen analyzer （H）：2.4×10^{-6}～6×10^{-6}	U_{rel}=（7.0～7.6）%		
		Nitrogen content		Oxygen, nitrogen and hydrogen analyzer （N）：0.0027%～0.0374%	U_{rel}=（1.5～7.6）%		
		Nitrogen content		Kjeldahl apparatus（N）(0.01～47)%	U_{rel}=1.2%		
65	*Industrial Analyzers	Ash content	V.R.of Industrial Analyzers JJG1140	（9～50）%	U=0.28%		
		Vdaf		（8～40）%	U=0.36%		
		Temperature		（750～950）℃	U=1.5℃		
66	*Determinators for Total Sulfur in Coal	Content	V.R.of Determinators fot Total Sulfur in Coal JJG1006	(0.01～1.00)%	U=0.05%		
				(1.00～4.00)%	U=0.06%		
				(4.00～6.00)%	U=0.10%		
67	*Bomb Calorimeters	Calorimeter	V.R.of Bomb Calorimeters JJG672	（10000～30000）J/g	U=35J/g		
68	*Karl Fischer Volumetric Titrators for Water Content	Moisture Content	V.R.of Karl Fischer Volumetric Titrators for Water Content JJG1154	(0.1～20)mg	U_{rel}=1.8%		
69	*Polymerase Chain Reaction Analyzers	Temperature	C.S. for Polymerase Chain Reaction Analyzers JJF1527	（10～120）℃	U=0.2℃		
		Copy number		(10^2～10^9)copies/μL	U_{rel}=7%		
70	*ELISA Analytical Instruments	Wave Length	V.R.of ELISA Analytical Instruments JJG861	（400～630）nm	U=0.4nm		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Absorbance		0.0001～2.0000	U=0.011		
71	*Micro-spectrophotometers	Content	C.S.of Micro-spectrophotometers JJF 1836	DNA:(10～2000)ng/ μ L	U_{rel}=7%		
72	*Sulfur Hydrogen Gas Detectors	Gas concentration	V.R.of Sulfur Hydrogen Gas Detectors JJG 695	(0～100) μ mol/mol	U_{rel}=1.4%		
		Time		(0.1～180)s	U=1.2s		
73	*Zirconia Oxygen Analyzers	Concentration	V.R.of Zirconia Oxygen Analyzers JJG 535	(0.1～100)%mol/mol	U_{rel}=0.9%		
		Time		(0.1～180)s	U=1.2s		
74	*Ammonia Gas Detectors	Concentration	V.R.of Ammonia Gas Detectors JJG 1105	(0.1～100) μ mol/mol	U_{rel}=3.0%		
		Time		(0.1～180)s	U=1.2s		
75	*Sulfur Dioxide Gas Detector	Concentration	V.R.of Sulfur Dioxide Gas Detector JJG 551	(1～1000) μ mol/mol	U_{rel}=1.6%		
		Time		(0.1～180)s	U=1.2s		
76	*tal Suspended Particulates Sampler	Flux	V.R.of Total Suspended Particulates Sampler JJG 943	(10～1200)L/min	U_{rel}=1.5%		
		Time		(0～3600)s	U=0.2s		
		Temperature		(10～50) ℃	U=0.2℃		
		Atmospheric pressure		(87～105) kPa	U=0.3kPa		
		Length		(0～300)mm	U=0.03mm		
77	*Samplers for Stack Dust	Flux	V.R.of Samplers for Stack Dust JJG 680	(5～60)L/min	U_{rel}=1.5%		
78	*Liquid Chromatograph-Atomic	Flux	V.R.of Liquid Chromatograph-Atomic Fluorescence Spectrometers	(0.1～10)mL/min	U_{rel}=0.3%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
	Fluorescence Spectrometers	Minimum detection quantity	JJG 1151	Arsenate:＜1ng	U_{rel}=8%		
				Methyl arsenic:＜0.7ng	U_{rel}=8%		
				Dimethyl arsenic:＜0.7ng	U_{rel}=8%		
79	*Gel Permeation Chromatographs	Temperature	V.R.of Gel Permeation Chromatographs JJG 342	（20～90）℃	U=0.3℃		
		Flux		(0.1～10)L/min	U_{rel}=0.3%		
		Molecular weight		Organic mobile phase：10kg/mol～1Mg/mol	U_{rel}=3%		
				Hydrodynamic phase:1kg/mol～1Mg/mol	U_{rel}=9%		
Optics							
1	*Standard Light Sources Box	Color Temperature	C.S.for Standard Light Source Boxe JJF(FZ)055	(2500～7500)K	U=95K		
		Illuminance		(20～3000) lx	U_{rel}=5%		
2	*Colorimeter and Color Difference Meter	Chromaticity	V.R.of Colorimeter and Color Difference Meters JJG595	Y：1～100	U=2.0		
				x,y: Full Color Gamut	U(x)=0.0080 U(y)=0.0080		
3	*Whiteness Meter	Whiteness	V.R.of the Whiteness Meter JJG512	60～95	U=1.8		
4	*Specular Gloss Meter	Gloss	V.R.of Specular Gloss Meters and Gloss Plates JJG696	(0～100)GU	1.4GU		
5	*Abbe Refractometer	Refractive Index	V.R.of Abbe Refractometer JJG625	1.3000～1.7000	U=2×10^{-4}		
		average dispenser		0.0070～0.0210	U=1.7×10^{-4}		
6	Illuminance Meter	Illuminace	V.R.of Iuminance Meters JJG245	(10～3000)lx	U_{rel}=2.0%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
7	*Clarity Test Equipment	Illuminance	C.S. for Clarity Test Equipment JJF1287	(10～3000)lx	U_{rel}=8.6%		
		Time		10s～60s	U=0.1s		
8	Luminance Meter	Luminance	V.R.of Luminance Meter JJG211	(10～1000)cd/m^2	U_{rel}=3.5%		
		Chromaticity		x,y: Full Color Gamut	U(x)=0.0068 U(y)=0.0068		
9	*Hazemeter	Haze	C.S. for Hazemeter JJF1303	1～30	U=0.32		
		Transmittance		0.3～0.9	U=0.008		
10	*Diffuse Transmission Visual Densitometer	Transmission Density	V.R.of Diffuse Transmission Visual Densitometers JJG920	0.05~2.0	U=0.03		
				2.0~4.0	U=0.04		
11	Color Temperature Meter	Color Temperature	V.R.of Color Temperature Meters JJG212	(2000~3000)K	U=20K		
				(5500~7000)K	U=97K		
12	*Reflectometer	Reflectivity	C.S.for Reflectometer JJF1232	50～95	U=2.0		
13	*Electrical Light Source Spectrum Test System	Luminous flux	C.S.for Electrical Light Source Spectrum Test System JJF(Su)153	(1～2000)lm	U_{rel}=4.0%		
		Chromaticity		x,y:Full gamut	U=0.0060		
		Colour Temperature		（2000～3400）K	U=30K		
		Wavelength		（200～800）nm	U=0.4nm		
14	Ultraviolet Radiometer （Energy Meter）	Energy	V.R.of Ultraviolet Radiometers JJG879	(0.01～10) J/cm^2	U_{rel}=20%		
		UV Irradiance		(0.1～2) mW/cm^2	U_{rel}=20%		
15	*UV Analyzers	Wavelength	C.S.for UV Analyzers JJF 1936	（200～400）nm	U=0.6nm		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Irradiance		(10～1000) μW/cm²	U_{rel}=15%		
16	*Irradiance of Artificial Accelerated Weathering Apparatus of Xenon Arc Lamp	Irradiance	C.S.for Irradiance of Artificial Accelerated Weathering Apparatus of Xenon Arc Lamp JJF 1525	（250～1100）nm:(0.1～1200)W/m²	U_{rel}=15%		
17	*Irradiance of Ultraviolet Test Chamber for Photovoltaic Modules	Irradiance	C.S.for Ultraviolet Test Chamber for Photovoltaic Modules JJF(Min) 1082	（250～800）nm:(0.1～25) mW/cm²	U_{rel}=15%		
		Temperature		（40～80）℃	U=0.2℃		
18	*Color Fastness to Light Yellowing Tester	Irradiance	C.S.for Color Fastness to Light Yellowing Tester JJF(Spin) 079	（200～1100）nm:(0.1～1200)W/m²	U_{rel}=15%		
		Temperature		Type a instrument:(20～80) ℃	U=0.4℃		
		Speed		Type a instrument:(1～10)rpm	U_{rel}=0.2%		
		Time		(0～60)min	U=0.2s		
19	Cathode Ray Tubes(CRT) Color Analyzer	Luminance	C.S.for Cathode Ray Tubes(CRT) Color Analyzer JJF 1079	(10～1000)cd/m²	U_{rel}=3％		
		Chromaticity		x,y: Full Color Gamut	U(x)=0.0035 U(y)=0.0035		
20	*Gel Documentation Systems	Signal to noise ratio	C.S.for Irradiance of Gel Documentation Systems JJF 1530	1～100	U_{rel}=5%		
		Illumination		（0.1~199.9）klx	U_{rel}=6%		
		Irradiance		(200～400)nm:(0.1～100)mW/m²	U_{rel}=15%		
Special (textiles, Construction traffic etc.)							

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
1	*Fabric Shrinkage Tester	Length	C.S.for Fabric Shrinkage Tester JJF(SPin)052	(40～530)mm	U=0.2mm		
		speed		(50～520)r/min	U_{rel}=1.0%		
		Time		3s～22min	U=0.4s		
		Temperature		(0～100)℃	U=0.5℃		
2	*Disk Sampler	Length	C.S.for Disk Sampler JJF(SPin)061	(0～300)mm	U=0.02mm		
3	*Reciprocating Type Fabric Density Mirror	Length	C.S. of Reciprocating Type Fabric Density Mirror JJF(SPin)023	(0～300)mm	U=0.02mm		
4	*Yarn Length Tester	Length	C.S.of Yarn Length Tester JJF(SPin)019	(990～1010)mm	U=0.4mm		
		Force value		(0.1～100)cN	U_{rel}=2%		
5	*Yarn Length Tester of Fabric	Length	C.S.of Yarn Length Tester of Fabric JJF(SPin)021	(0～200)mm	U=0.04mm		
		Force value		(5～150)cN	U_{rel}=0.8%		
6	*Fabric Bursting Strength Tester	Aperture	C.S.of Fabric Bursting Strength Tester JJF(SPin)048	(0～150)mm	U=0.04mm		
		Burst expansion		(0.02～30) mm	U=0.03mm		
		Burst strength		(9～11)MPa	U=0.013MPa		
		Time		(10～35)s	U=0.4s		
7	*Light and Weather Fastness Testers	Temperature	C.S.for Light and Weather Fastness Testers JJF(SPin)051	(0～110)℃	U=0.4℃		
8	*Fabric Shrinkage Testers	Temperature	C.S.for Fabric Shrinkage Testers JJF(SPin)029	(150～210)℃	U=1.0℃		
		Time		(10～35)s	U=0.4s		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
9	*Compression Stregth Tester for Board	Force Value	V.R.of Compression Stregth Tester for Board JJG(LI)49	(0.01～50)kN	U_{rel}=0.4%		
10	Tyre Pressure Gauges	Pressure	V.R.of Tyre Pressure Gauges JJG927	(0.1～2.5)MPa	U=0.3%FS		
11	*Horizontal Tension Tester for Paper and Board	Force Value	V.R.of Horizontal Tension Tester for Paper and Board JJG(LI)58.2	(0.1～1000)N	U_{rel}=0.4%		
12	*Tear Tester for Paper and Board	Force Value	V.R.of Tear Tester for Paper and Board JJG(LI)63	(0.1～16)N	U_{rel}=0.1%		
13	*Softness Tester	Force Value	V.R.of Softness Tester JJG(LI)64	(0.1～1000)mN	U_{rel}=0.3%		
14	*Fogra Abrasion Tester For Paper and Paper Board	Force Value	V.R.of Fogra Abrasion Tester For Paper and Paper Board JJG(LI)70	(0.1～30)N	U_{rel}=0.4%		
15	*Compression Strength Tester for Corrugated Box	Force Value	V.R.of Compression Strength Tester for Corrugated Box JJG(LI)115	(0.1～50)kN	U_{rel}=0.4%		
16	*AKRON Abrasion Machine for Rubber	Bearing load	C.S for Akron Abrasion Machine for Rubber JJF(SH)039	(25～30)N	U_{rel}=0.1%		
		Wheel speed		(30～80)r/min	U=0.5r/min		
		Rubber wheel shaft and wheel Angle		5° ～35°	U=0.1°		
17	*Crock meter	Friction head gravity	C.S.of the Crock meter JJF(SPin)027	(0.1～15)N	U=0.02N		
		Friction head stroke		(0～150)mm	U=0.6mm		
18	*Tester of Wash Fastness	Test rack speed	C.S.of Tester of Wash Fastness JJF(SPin)026	(35～45) r/min	U=0.6r/min		
		Time		(30～40)min	U=0.4s		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Temperature rise time		(0～30)min	U=0.4s		
		Temperature		(40～95)℃	U=0.4℃		
19	*Tester of Color fastness to Perspiration	Length	V.R. of Tester of Color fastness to Perspiration JJF(SPin)028	(0～200)mm	U=0.04mm		
		Weight of the pressure hammer		(40～60)N	U=0.16N		
20	*Woven Pilling Tester	Movement track of grinding head and grinding table phase	C.S.of Woven Pilling Tester JJF(SPin)031	Φ(35～45)mm	U=0.04mm		
		Mill reciprocating speed		(55～65)BPM	U=0.3BPM		
		Weight of the pressure hammer		(100～500)cN	U_{rel}=0.4%		
21	*Fabrics Abrasion Resistance Apparatus	Speed	C.S.of Fabrics Abrasion Resistance Apparatus JJF(SPin)036	(40～50) r/min	U=0.6 r/min		
		Mass		（200～2385）g	U=（0.2～0.6）g		
22	*Grammage Tester for Paper and Board	Mass	V.R.of Grammage Tester for Paper and Board JJG(LI)54.2	(0～50)g	U=(1.1~1.4)mg		
23	*Absorption Tester for Paper and Board	Area	V.R.of Absorption Tester for Paper and Board JJG(LI)55	(99～101)cm^2	U=0.03cm^2		
		Mass		(9～11)kg	U=0.04kg		
24	*Laboratory Lampen Mill Beater	Mass	V.R. of Laboratory Lampen Mill Beater JJG(LI)71	(9～11)kg	U=0.04kg		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Length		(130～135)mm	U=0.04mm		
25	*Transmittance Meter of Automobile	Light transmittance	C.S.for Transmittance Meter of Automobile JJF1225	(1～100)%	U=0.5%		
26	*Eight-basket Oven	Temperature	C.S. for Eight-basket Oven JJF(Texttile)011	(50～150)℃	U=0.4℃		
27	Apparatus for Determining Penetration of Bituminous Materials	Length	C.S.for Apparatus for Determining Penetration of Bituminous Materials JJF1208	(0～25)mm	U=0.005mm		
		Temperature		(0～50)℃	U=0.1℃		
		Mass		(1～200)g	U=0.002g		
28	*Vertical Combustion Tester	Length	C.S.for Vertical Combustion Tester JJF(Spin)068	(0～50)mm	U=(0.2～0.5)mm		
				(＞50～800)mm	U=1.1mm		
		Quality		(50～460)g	U=0.3g		
		Angle		(24～26)°	U=0.2°		
		Time		(10～20)s	U=0.2s		
29	*Reinforced Concrete Covermeter and Floorslab Thickness Tester	Length	C.S.for Reinforced Concrete Covermeter and Floorslab Thickness Tester JJF1224	(9～250)mm	U=0.5mm		
30	*Bursting Strength Tester for Paper(Board)	Pressure	C.S.for Bursting Strength Tester for Paper(Board) JJF 1811	(0～6000)kPa	U=3.6kPa		
31	Carbonization Depth Measuring Instruments/Carbonization depth	Length	JJF 1721	Measuring Instruments：(0～8)mm	U=0.08mm		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
	measuring stick			measuring stick：(0～70)mm	U=0.01mm		
32	*Compaction Instrument of Soil	Mass	V.R.of Compaction Instrument of Soil JJG(JT)058	(2450～4550)g	U=0.5g		
		Length		(2～55)mm	U=0.04mm		
				(290～460)mm	U=0.6mm		
33	*Apparatus for Time of Setting of Concrete Mixture by Penetration Resistance	Force	V.R of Apparatus for Time of Setting of Concrete Mixture by Penetration Resistance JJG(JT)095	(100～1200)N	U_{rel}=0.3%		
		Length		(4～15)mm	U=0.01mm		
				(23～165)mm	U=0.04mm		
34	*Sand Equivalent Tester	Mass	V.R of Sand Equivalent Tester JJG(JT)137	(990～1010)g	U=0.5g		
		Time		(25～35)s	U=0.2s		
		Frequency		(175～185)min^{-1}	U=1min^{-1}		
		Length		Oscillation distance:(200～205)mm	U=0.3mm		
				Size:(0.1～435)mm	U=（0.03～0.10）mm		
35	*Fibre Strength Tester	Force	C.S for Fibre Strength Tester JJF(FZ)016	(0.1～200)cN	U_{rel}=0.25%		
36	Multifunction Slope Scale	Angle	C.S for Multifunction Slope Scale JJF(Ji)140	(-90～90)°	U=0.3°		
37	*Sand-cone Density Apparatus	Length	V.R of Sand-cone Density Apparatus JJG(JT)120	(1～300)mm	U=0.04mm		
38	*Instrument for Steel Bar Gauge Length	Length	V.R of Instrument for Steel Bar Gauge Length JJG(Su) 67	(0～500)mm	U=0.09mm		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
39	*Apparatus for Concrete Slump Test	Length	C.S for Apparatus for Concrete Slump Test JJF(Zhe)1093	(1.5～302)mm	U=0.05mm		
40	Construction Quality Tester Sets	Slope	C.S for Construction Quality Tester Sets JJF 1110	(0～25)mm/m	U=0.14mm/m	Accredited only for diagonal inspection ruler, wedge feeler gauge, grid and slope ruler.	
				(115～240)mm	U_{rel}=0.12%		
		Length		(760～2400)mm	U=0.6mm		
41	Needle and Flake Gage	Length	C.S for Needle and Flake Gages JJF 1593	(2～85)mm	U=0.04mm		
42	*Rebound Test Hammer	Force	V.R of Rebound Test Hammer JJG 817	(0.4～0.8)N	U_{rel}=2.5%	Except for specification	
		Rigidity		(60～820)N/m	U_{rel}=2.6%		
		Calibration value		(70～92) line	U=1.2 line		
		Length		Pointer length:(19.5～20.5)mm	U=0.02mm		
				Length of tension spring:(61～141)mm	U=0.2 mm		
43	Metrology Verification Device for Rebound Tester	Hardness	V.R.of Metrology Verification Device for Rebound Tester JJG(Su)59	(55～65)HRC	U=0.7HRC		
		Force		(0.2～1)N	U_{rel}=1.5%		
		Mass		(1995～2005)g	U=0.5g		
		Length		Caliper indication:(0～150)mm	U=2 μ m		
				Size:(2～198)mm	U=0.04mm		

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
44	*Apparatus to Measure Water Permeability of Concrete	pressure	C. S. for Apparatus to Measure Water Permeability of Concrete JJF 1812	(0.1～4)MPa	U=0.1%FS		
45	*Inspecting Specification for Apparatus of Fluidity of Cement Mortar	Mass	V.R of Inspecting Specification for Apparatus of Fluidity of Cement Mortar JJG(Zhe)116	(4200～4500)g	U=0.5g		
		Time		(20～30)s	U=0.2s		
		Length		(9～301)mm	U=0.04mm		
46	*Apparatus for Normal Consistency and Setting Time of Cement Paste	Mass	V.R of Apparatus for Normal Consistency and Setting Time of Cement Paste JJG(Zhe)118	(290～310)g	U=0.05g		
		Length		(0.01～85)mm	U=0.02mm		
47	*Mortar consistency Tester	Mass	C.S. for Nonmetal Building Materials Plastic Limit Measuring Instruments JJF1090	(290～310)g	U=0.05g		
		Length		(0～185)mm	U=0.04mm		
		Angle		(25～35)°	U=0.1°		
48	*Mixer for cement paste	Rotate speed	V.R of Mixer for cement paste JJG(Zhe)114	(50～310)r/min	U_{rel}=0.2%		
		Length		Clearance/Wall thickness:(0.1～5)mm	U=0.01mm		
				Size:(4～170)mm	U=0.04mm		
		Time		(10～125)s	U=0.2s		
49	*Mixer for mixing mortars	Rotate speed	V.R for Mixer for mixing mortars JJG(Ji)3008	(50～300)r/min	U_{rel}=0.2%		
		Length		Clearance/Wall thickness:(0.1～5)mm	U=0.03mm		
				Size:(135～205)mm	U=0.04mm		

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№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Time		(25～95)s	U=0.2s		
50	*Apparatus of Abrasion Resistance for Cement Mortar and Concrete	Force	V.R of Apparatus of Abrasion Resistance for Cement Mortar and Concrete JJG(JT)097	(190～410)N	U_{rel}=0.3%		
		Rotate speed		(15～650)r/min	U_{rel}=0.2%		
		Length		(2～135)mm	U=0.04mm		
51	*Cement Mortar Specimen Jolting Tabler Complying	Mass	V.R for Cement Mortar Specimen Jolting Tabler Complying JJG(Zhe)115	(2～15)kg	U=2g		
		Time		(55～65)s	U=0.2s		
		Length		(14.5～15.5)mm	U=0.05mm		
52	*Asphalt Mixture's Marshall Compaction Test Apparatus	Mass	V.R of Asphalt Mixture's Marshall Compaction Test Apparatus JJG(JT)065	(4500～10220)g	U=2g		
		Length		(50～200)mm	U=0.07mm		
				(＞200～460)mm	U=1.1mm		
		Frequency		(50～70)min^{-1}	U=1.2min^{-1}		
53	*Cement Fineness Negative Pressure Screen Analyzers	pressure	C.S for Cement Fineness Negative Pressure Screen Analyzers JJF 1827	(-100～0)hPa	U=0.2hPa		
		Rotate speed		(25～35)r/min	U=0.5r/min		
54	*Marshall test machine for bituminous mixtures	Force	V.R of Marshall test machine for bituminous mixtures JJG(JT)066	(0.05～50)kN	U_{rel}=0.12%		
		Velocty		(40～60)mm/min	U_{rel}=0.5%		
		Length		Stream value:(0～11)mm	U=0.006mm		
				(50～77)mm	U=0.04mm		
55	*Liquid & Plastic Limit Gauge	Mass	V.R of Liquid & Plastic Limit Gauge JJG(JT)069	(70～110)g	U=0.002g		
		Time		(4～6)s	U=0.1s		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
		Length		(0～55)mm	U=0.02mm		
		Angle		(25～35)°	U=0.1°		
56	*Test Apparatus for Theoretical Maximum Specific Gravity of Asphalt Mixtures	Pressure	V.R of Test Apparatus for Theoretical Maximum Specific Gravity of Asphalt Mixtures JJG(JT)105	(-100～150)kPa	U=0.03%FS		
		Capacity		(2000～5000)mL	U=8mL		
		Time		(0～2)min	U=0.2s		
57	*The Expansion Tester of Cement Le Chatelier Needles	Mass	C.S for The Expansion Tester of Cement Le Chatelier Needles JJF(JC)110	(295～305)g	U=0.05g		
		Length		(0～6)mm	U=0.012mm		
58	*Friability Surveymeters	Rotate speed	C.S for Friability Surveymeters JJF(Ji)168	(10～200)r/min	U_{rel}=0.6%		
		Number of rotations		(1～200)r	U=0.5r		
		Time		(0～4)min	U=0.2s		
59	*Instrument of Testing Mortar-strength by Penetration Resistance Method	Force	C.S for Instrument of Testing Mortar-strength by Penetration Resistance Method JJF 1372	(780～820)N	U_{rel}=0.3%		
		Length		(0～41)mm	U=0.02mm		
60	*Asphalt Centrifugal Extractor	Rotate speed	V.R of Asphalt Centrifugal Extractor JJG(JT)132	(30～20000)r/min	U_{rel}=0.2%		
		Length		(0.043～0.12)mm	U=0.003mm		
61	*California Bearing Ratio Instrument	Force	V.R of California Bearing Ratio Instrument JJG(JT)106	(2～300)kN	U_{rel}=0.4%		
		Mass		(1240～1260)g	U=0.5g		
		Velocty		(1.00～1.25)mm/min	U=0.12mm/min		

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		Length		(48～152)mm	U=0.04mm		
62	*Oedometers	Force	C.S for Oedometers JJF 1311	(0.01～20)kN	U_{rel}=0.4%		
		Length		(0～100)mm	U=0.03mm		
63	*Concrete Vibrating table test	Force	C.S for concrete Vibrating table test JJF(Ji)123	(0.9～2)kN	U_{rel}=1.2%		
		Vibration displacement		(0.4～0.6)mm(50Hz)	U=0.006mm		
		Vibration frequency		(45～55)Hz	U=0.6Hz		
		Time		(0～10)s	U=0.2s		
64	*Abrasion Tester for Paint Films	Mass	V.R of Abrasion Tester for Paint Films JJG(JT)125	(0.8～1000)g	U=0.05g		
		Hardness		(40～60)HD	U=0.5HD		
		Rotate speed		(55～65)r/min	U_{rel}=0.2%		
		Length		(35～55)mm	U=0.04mm		
65	*coefficient of Friction Tester	Frictional force	C.S for coefficient of Friction Tester JJF(Ji)125	(0.1～1000)N	U_{rel}=0.2%		
		Moving speed of Slider		(50～600)mm/min	U_{rel}=（6.0～0.2）%		
		Slider mass		(20～2000)g	U_{rel}=0.3%		
		Spring elasticity coefficient		(1～3)N/cm	U=0.2N/cm		
66	*Stiffness Tester for Board	Moment of force	Verification Regulation of Stiffness Tester for Board JJG (Qing) 57	(0.1～10)mN・m	U_{rel}=0.2%		
		Speed		(150～250)°/min	U_{rel}=3%		

№	Instrument	Measurand	Calibration Method	Range	Expanded Uncertainty (k=2)	Note	Effective Date
67	*Simulation Test-bed for Road Transportation	Frequency	C.S for Simulation Test-bed for Road Transportation JJF 1271	(1～400)Hz	U_{rel}=0.3%		
		Acceleration		(2～100)m/s^2	U_{rel}=2%		
68	Hot Ball shaped Anemometer	Wind speed	Metrological Verification Regulation of Hot Ball shaped Anemometer JJG (JS) 0001	(5～25)m/s	U=(0.2～0.5)m/s		
69	Portable 3-cup Anemometers	wind speed	Verification Regulation of Portable 3-cup Anemometers JJG 431	(5～25)m/s	U=(0.2～0.5)m/s		
70	Portable Induction Anemometer	wind speed	V.R of Portable Induction Anemometer JJG 515	(5～25)m/s	U=(0.2～0.5)m/s		
71	Contact Anemorumbometer	wind speed	V.R of Contact Anemorumbometer JJG 613	(5～25)m/s	U=(0.2～0.5)m/s		

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