

附表 4

任务编号: L03647-2020-01

推荐认可的校准和测量能力范围 (中文)

名称: 广东省世通仪器检测服务有限公司

地址: 广东省东莞市道滘镇厚德上梁洲工业区

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
一、几何量								
1	量块	长度	600201	量块 JJG 146	(0.5~500) mm	$U=0.5\mu\text{m}+5\times 10^{-6}L$		
2	钢卷尺	长度	600110	钢卷尺 JJG 4	(0~50)m	$U=0.1\text{mm}+1\times 10^{-5}L$		
3	*影像测量仪 (二次元、2.5次元)	长度	600121	影像测量仪 JJF 1318	(0~500)mm	$U=1.2\mu\text{m}+2\times 10^{-6}L$		
4	*数显测高仪	长度	600410	数显测高仪 JJF 1254	(0~1000)mm	$U=1.2\mu\text{m}+3\times 10^{-6}L$		
5	*工具显微镜	长度	600119	工具显微镜 JJG 56	(0~200)mm	$U=1.0\mu\text{m}+6\times 10^{-6}L$		
6	*杠杆表	长度	600209	杠杆表 JJG 35	分度值 0.001mm (0~0.4) mm	$U=1.2\mu\text{m}$		
					分度值 0.01mm (0~1) mm	$U=2.1\mu\text{m}$		
7	*万能角度尺	角度	600312	万能角度尺检定规程 JJG 33	(0~360)°	$U=1'$		
8	漆膜划格器、百格刀	长度	600699	漆膜划格器校准规范 JJF(皖) 53	(0~3) mm	$U=5\mu\text{m}$		变更

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
9	*投影仪	长度	60012 2	投影仪校准规范 JJF 1093	(0~300) mm	$U=1.2\mu\text{m}+6\times 10^{-6}L$		
10	*圆度仪	圆度	60060 2	圆度、圆柱度测量仪 JJG 429	(0.1~10) μm	$U_{\text{rel}}=3\%$		
11	*通用卡尺	长度	60021 3	通用卡尺 JJG 30	(0~300) mm	$U=0.01\text{mm}$		
					(>300~1000) mm	$U=0.02\text{mm}$		
					(>1000~2000) mm	$U=0.03\text{mm}$		
12	*条码检测仪	长度	67053 5	条码检测仪 JJG 979	(0.2~10) mm	$U=14\mu\text{m}$		
13	*千分尺	长度	60020 4	千分尺检定规程 JJG21	(0~50) mm	$U=1.2\mu\text{m}$		
					(>50~150) mm	$U=1.8\mu\text{m}$		
					(>150~300) mm	$U=3.0\mu\text{m}$		
					(>300~500) mm	$U=4.5\mu\text{m}$		
14	*接触(触针)式表面轮廓测量仪	长度	60063 2	接触(触针)式表面轮廓测量仪校准规范 JJF(闽)1043	R(1~5) mm	$U=1.3\mu\text{m}$		
		角度	60063 2		X轴:(0~200) mm	$U=1.0\mu\text{m}$		
					(0~180) °	$U=41''$		
15	*成鞋耐折试验机	角度	70015 2	成鞋耐折试验机校准规范 STJF1010	(0~90) °	$U=0.1^\circ$		
		速度	70015 2		(50~300) r/min	$U=1\text{r/min}$		
16	*纤维切断器	长度	70011 7	纤维切断器校准规范 JJF(纺织)022	(0~50) mm	$U=(8\sim 12)\mu\text{m}$		
17	*纱线捻度仪	长度	70012 3	纱线捻度仪校准规范 JJF(纺	(250~500) mm	$U=0.1\text{mm}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		力值	700123	织)010	(0.1~500)cN	$U_{rel}=2\%$		
		转速	700123		(1~1000)r/min	$U=0.3r/min$		
18	*国标耐磨试验机	长度	620718	国标耐磨试验机校准规范 STJF1011	(0~100)mm	$U=0.01mm$		
		角度	620718		(0~90)°	$U=0.1^\circ$		
		频率	620718		(0~300)r/min	$U=1r/min$		
		质量	620718		1g~2000g	$U=0.1g$		
19	*织物密度镜	长度	700118	往复移动式织物密度镜校准规范 JJF(纺织)023	(0~50)mm	$U=0.04mm$		
20	*自由跌落试验机	长度	040108	自由跌落试验机校准规范 STJF1006	(0~3)m	$U=1mm$		
		角度	040108		$\pm 1^\circ$	$U=0.6^\circ$		
		频率	040108		(0~60)次/min	$U=1次/min$		
21	电子水平尺	角度	600315	电子水平尺校准规范 JJF 1119	(0~90)°	$U=0.02^\circ$		
22	*体视显微镜	放大倍数	600120	体视显微镜校准规范 JJF(闽)1063	5X~100X	$U_{rel}=0.8\%$		
23	水平尺	角度	600315	水平尺校准规范 JJF 1085	(0.5~10)mm/m	$U_{rel}=10\%$		
24	*往复移动式织物密度镜	长度	700118	往复移动式织物密度镜 JJF(纺织)023	(0~50)mm	$U=0.1mm$		
25	*伸长率测试仪	伸长率	600699	伸长率测试仪检定方法 JBT 4279.3	(0~60)%	$U=0.2\%$		
26	钢直尺	长度	600111	钢直尺检定规程 JJG 1	(0~300)mm	$U=0.03mm$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(>300~600) mm	$U=0.05$ mm		
					(>600~1000) mm	$U=0.07$ mm		
27	光滑极限量规	长度	600613	光滑极限量规 JJG 343	Φ (1~100) mm	$U=(0.8 \sim 2.4)\mu\text{m}$		
28	塞尺	长度	600608	塞尺规检定规程 JJG62	(0.02~1.00) mm	$U=(1.4 \sim 5.2)\mu\text{m}$		
29	*内测千分尺	长度	600203	测量内尺寸千分尺校准规范 JJF 1411	(5~50) mm	$U=2.3\mu\text{m}$		
					(>50~100) mm	$U=3.2\mu\text{m}$		
					(>100~150) mm	$U=3.9\mu\text{m}$		
30	杆杠式千分尺	长度	600206	杆杠式千分尺、杆杠卡规检定规程 JJG 26	(0~50) mm	$U=1.2\mu\text{m}$		
					(>50~100) mm	$U=1.8\mu\text{m}$		
31	*带表千分尺	长度	600207	带表千分尺检定规程 JJG 427	(0~50) mm	$U=1.2\mu\text{m}$		
					(>50~100) mm	$U=1.8\mu\text{m}$		
32	*测量显微镜	长度	600120	读数、测量显微镜检定规程 JJG 571	(0~50) mm	$U=2\mu\text{m}$		
33	刮板细度计	长度	600629	刮板细度计检定规程 JJG 905	(0~150) μm	$U=3\mu\text{m}$		
34	*深度千分尺	长度	600205	深度千分尺检定规程 JJG 24	(0~100) mm	$U=1.6\mu\text{m}$		
35	木直(折)尺	长度	600115	木直(折)尺检定规程 JJG2	(0~500) mm	$U=0.2$ mm		
36	内径千分尺	长度	600202	内径千分尺检定规程 JJG 22	(50~100) mm	$U=2.3\mu\text{m}$		
37	*公法线千分尺	长度	600511	公法线类千分尺检定规程 JJG 82	(0~100) mm	$U=2\mu\text{m}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
38	平尺	直线度	600315	平尺校准规范 JJF 1097	(400~3000) mm	$U=2.5\mu\text{m}$		
39	试验筛	长度	600641	试验筛校准规范 JJF 1175	(0.02~10) mm	$U=5\mu\text{m}$		
					(>10~125) mm	$U=0.05\text{mm}$		
40	*超声波测厚仪	长度	600635	超声波测厚仪校准规范 JJF 1126	(0.5~200) mm	$U=(0.01\sim 0.05)\text{mm}$		
41	*指示表	长度	600208	指示表(指针式、数显式)检定规程 JJG 34	(0~10) mm(分度值 0.01mm)	$U=6.8\mu\text{m}$		
					(0~5) mm(分度值 0.001mm)	$U=3.2\mu\text{m}$		
42	*高度卡尺	长度	600215	高度卡尺检定规程 JJG 31	(0~500) mm	$U=0.02\text{mm}$		
43	*厚度表	长度	600219	厚度表校准规范 JF1255	(0~30) mm	$U=2\mu\text{m}$		
44	*大量程百分表	长度	600210	大量程百分表检定规程 JJG 379	(0~50) mm	$U=(8\sim 10)\mu\text{m}$		
45	*深度百分表	长度	600212	深度百分表检定规程 JJG 830	(0.01~100) mm	$U=0.01\text{mm}$		
46	*平板	平面度	600606	平板检定规程 JJG 117	(160mm×100mm)~(2500mm×4000mm)	$U=(1.5\sim 3)\mu\text{m}$		
47	水平仪	角度	600313	框式水平仪和条式水平仪校准规范 JJF 1084	(0.02~0.08) mm/m	$U_{\text{rel}}=6\%$		
48	*磁阻法、电涡流式测厚仪	长度	600635	磁性、电涡流式覆层厚度测量仪检定规程 JJG 818	(0~1) mm	$U=1\mu\text{m}+1\%H$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
49	*锡膏厚度测量仪	长度	600635	锡膏厚度测量仪校准规范 STJF 033	(0~150) μm	$U=2\mu\text{m}$		
50	直角尺	角度	600308	直角尺检定规程 检定规程 JJG 7	边长(60~300)mm	$U=4\mu\text{m}/300\text{mm}$		
		长度	600308		(60~300)mm	$U=0.1\text{mm}$		
51	柔性周径尺	长度	600118	柔性周径尺检定规程 JJG 670	(0~1.5)m	$U=0.2\text{mm}$		
52	建筑工程质量检测器组	角度	700899	建筑工程质量检测器组校准规范 JJF 1110	0.5mm/2m	$U=0.1\text{mm}/2\text{m}$		
		长度	700899		(1~1000)mm	$U=0.1\text{mm}$		
					百格网(0.05~15)mm	$U=0.01\text{mm}$		
53	楔形塞尺	长度	700878	楔形塞尺校准规范 JJF 1548	(1~15)mm	$U=0.1\text{mm}$		
54	刀口形直尺	直线度	600308	刀口形直尺检定规程 JJG 63	(125~300)mm	$U=1.0\mu\text{m}$		
55	针规	直径	600616	针规、三针校准规范 JJF 1207	(0.1~10)mm	$U=0.3\mu\text{m}$		
					(10~25)mm	$U=0.5\mu\text{m}$		
56	*表面粗糙度测量仪	粗糙度	600626	触针式表面粗糙度测量仪校准规范 JJF 1105	Ra: (0.1~1.6) μm	$U_{\text{rel}}=8\%$		
57	半径样板	长度	600640	半径样板检定规程 JJG 58	R(1~25)mm	$U=(0.005\sim 0.008)\text{mm}$		
58	螺纹样板	长度	600527	螺纹样板检定规程 JJG 60	P(0.40~6.0)mm	$U=(3\sim 7)\mu\text{m}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
59	焊接检验尺	长度	60064 5	焊接检验尺 检定规程 JJG 704	(0~100)mm	$U=0.02$ mm		
		角度	60064 5		(0~90)°	$U=15'$		
60	试模	长度	60064 7	试模校准规范 JJF 1307	(0~500)mm	$U=(0.03\sim 0.06)$ mm		
		角度	60064 7		(0~500)mm	$U=0.034$ mm		
		平面度	60064 7		(200×200)mm	$U=0.018$ mm		
61	*扭簧比较仪	长度	60062 2	扭簧式比较仪检定规程 JJG118	(-100 μm~+100 μm)	$U=(0.1\sim 0.6)$ μm		
62	*机械式比较仪	长度	60062 2	机械式比较仪检定规程 JJG39	(-100 μm~+100 μm)	$U=(0.1\sim 1.4)$ μm		
63	*内径百分表	长度	60021 1	内径表校准规范 JJF1102	(2~450)mm	$U=1.8$ μm		
64	*内径千分表	长度	60021 1	内径表校准规范 JJF1102	(10~400)mm	$U=1.2$ μm		
65	*跳动检查仪	长度	60050 8	跳动检查仪校准规范 JJF1109	(0~500)mm	$U=(1.8\sim 3.6)$ μm		
66	*带表卡规	长度	60061 1	带表卡规校准规范 JJF1253	(5~100)mm	$U=(5.0\sim 18.0)$ μm		
67	*X射线测厚仪	长度	60063 5	X射线荧光镀层测厚仪校准规范 JJF1306	(0.2~15)μm	$U_{rel}=6\%$		
68	*生物显微镜	放大率	60012 0	生物显微镜校准规范 JJG 1402	10×~100×	$U_{rel}=1.2\%$		
69	*缕纱测长机	转速	70011 4	缕纱测长机校准规范 JJF(纺	(0~100) r/min	$U=1r/min$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		力值	700114	织)019	(0.1~10)N	$U_{rel}=0.4\%$		
		长度	700114		(0~3)m	$U=0.3\text{mm}$		
70	*圆盘取样器	长度	700154	圆盘取样器校准规范 JJF(纺织)061	(0~200)mm	$U=0.04\text{mm}$		
71	*汽车侧滑检验台	长度	700211	汽车侧滑检验台检定规程 JJG 908	(0~10)m/km	$U=0.07\text{m/km}$		
72	*摩托车轮偏检测仪	长度	700215	摩托车轮偏检测仪检定规程 JJG 910	(0~15)mm	$U=0.07\text{mm}$		
73	插头插座量规	长度	600614	插头插座量规校准规范 STJF1002	(0~150)mm	$U=0.005\text{mm}$		
		角度	600614		(0~360)°	$U=0.1^\circ$		
74	*气动测量仪	长度	600638	气动测量仪检定规程 JJG 356	分度值: 0.5 μm (0~200) μm	$U=0.4\mu\text{m}$		
					分度值: 1 μm (0~200) μm	$U=0.5\mu\text{m}$		
					分度值: 2 μm (0~200) μm	$U=0.6\mu\text{m}$		
					分度值: 5 μm (0~200) μm	$U=0.7\mu\text{m}$		
75	*检针机	长度	600620	检针机校准规范 STJF 06	(0.8~350)mm	$U=1\text{mm}$		
76	灯头、灯座量规	长度	600614	灯头、灯座量规校准规范 STJF 1003	(0~150)mm	$U=0.01\text{mm}$		
		角度	600614		(0~360)°	$U=0.1^\circ$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
77	方箱	角度	600307	方箱检定规程 JJG194	50mm× 50mm~ 300mm× 300mm	$U=2\mu\text{m}$		
		平面度	600307		50mm× 50mm~ 300mm× 300mm	$U=6\mu\text{m}$		
78	*激光测径仪	长度	600620	激光测径仪校准规范 JJF1250	(0~30)mm	$U=1.2\mu\text{m}$		
79	*金相显微镜	长度	600120	生物显微镜校准规范 JJF 1402	放大率: 5X~100X	$U_{\text{rel}}=0.8\%$		
					(0~1)mm	$U=5\mu\text{m}$		
80	引伸计	长度	600648	引伸计检定规程 JJG762	(0~25)mm	$U=(1+0.3\%H)\mu\text{m}$		
81	π 尺	长度	600110	π 尺校准规范 JJF 1423	(0~1.5)m	$U=0.04\text{mm}$		
82	*电感测微仪	长度	600623	电感测微仪校准规范 JJF 1331	±1000 μ m	$U=(0.02\sim 1.4)\mu\text{m}$		
83	*光栅式测微仪	长度	600623	光栅式测微仪校准规范 JJF 1682	(0~100)mm	$U=(0.25\sim 0.4)\mu\text{m}$		
84	*容栅数显标尺	长度	600113	容栅数显标尺校准规范 JJF 1280	(0~1000)mm	$U=(0.01\sim 0.03)\text{mm}$		
85	线位移传感器	长度	600108	线位移传感器校准规范 JJF 1305	(0~1000)mm	$U=(0.01\sim 0.03)\text{mm}$		
86	*橡胶、塑料薄膜测厚仪	长度	600635	橡胶、塑料薄膜测厚仪校准规范 JJF 1488	(0~30)mm	$U=(2\sim 12)\mu\text{m}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
87	指示类量具检定仪	长度	600220	指示类量具检定仪检定规程 JJG 201	(0~50)mm	$U=(0.3\sim 1.2)\mu\text{m}$		
88	*组合式角度尺	角度	600312	组合式角度尺校准规范 JJF 1132	(0~180) °	$U=3'$		
		长度	600312		(0~300)mm	$U=0.04\text{mm}$		
89	*水滴角测试仪	角度	600399	水滴角测试仪校准规范 STJF1018	(5~165) °	$U=0.1^\circ$		
90	*皮革面积测量机	长度	600636	皮革面积测量机检定规程 JJG 413	(0.25~1)m ²	$U=0.01\text{m}^2$		
91	*橡胶测厚仪	长度	600635	橡胶、塑料薄膜测厚仪校准规范 JJF 1488	(3~10)mm	$U=0.005\text{mm}$		
		质量	600635		(10~200)g	$U=0.3\text{g}$		
92	*透气法比表面积仪	长度	700843	透气法比表面积仪检定规程 JJG (建材) 167	(0~70)mm	$U=0.03\text{mm}$		
		时间	700843		(0~600)s	$U=0.4\text{s}$		
		体积	700843		(0~10)cm ³	$U=0.005\text{cm}^3$		
		比表面积	700843		(3500~4000)cm ² /g	$U_{\text{rel}}=2\%$		
93	*液位计	长度	620522	液位计检定规程 JJG 971	(0~2000)mm	$U=0.1\text{mm}$		
94	*跌落地板	长度	600699	跌落地板校准规范 STJF 1030	(1~1000)mm	$U=0.1\text{mm}$		
		邵氏硬度	620999		(20~90)HA	$U=1.5\text{HA}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
95	小物件测试筒	长度	600699	小物件测试筒校准规范 STJF 1035	(1~200)mm	$U=(0.01\sim 0.03)\text{m}$		
96	关节式可触及探头	长度	600699	关节式可触及探头校准规范 STJF 1031	(1~200)mm	$U=(0.01\sim 0.03)\text{m}$		
97	测试模板	长度	600699	测试模板校准规范 STJF 1029	(1~200)mm	$U=(0.01\sim 0.03)\text{m}$		
98	奶嘴测试装置	长度	600699	奶嘴测试装置校准规范 STJF 1032	(0~100)mm	$U=(0.01\sim 0.03)\text{m}$		
		角度	600699		$(45\pm 1)^\circ$	$U=0.4^\circ$		
99	标准圆盘(压力头)	长度	600699	标准圆盘(压力头)校准规范 STJF 1028	(0~20)mm	$U=(0.01\sim 0.03)\text{m}$		
100	*纸与纸板厚度测定仪	长度	700402	纸与纸板厚度测定仪检定规程 JJG(轻工) 50.1	(0~4)mm	$U=1.3\mu\text{m}$		
		平行度	700402		$(0\sim 5)\mu\text{m}$	$U=0.5\mu\text{m}$		
101	*瓦楞纸板厚度仪	长度	700403	瓦楞纸板厚度仪检定规程 JJG(轻工) 50.2	(0~20)mm	$U=6\mu\text{m}$		
		平行度	700403		$(0\sim 5)\mu\text{m}$	$U=1.2\mu\text{m}$		
102	*可变压力厚度仪	长度	700404	可变压力厚度仪检定规程 JJG(轻工) 50.3	(0~4)mm	$U=1.3\mu\text{m}$		
		平行度	700404		$(0\sim 5)\mu\text{m}$	$U=0.5\mu\text{m}$		
103	*纸与纸板吸收性测定仪	面积	700407	纸与纸板吸收性测定仪检定规程 JJG(轻工) 55	$(100\pm 0.2)\text{cm}^2$	$U=0.07\text{cm}^2$		
		长度	700407		$(200\pm 0.5)\text{mm}$	$U=0.1\text{mm}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		质量	700407		(10±0.5)kg	$U=0.1\text{kg}$		
104	*纸浆打浆度测定仪	时间	700408	纸浆打浆度测定仪检定规程 JYG(轻工) 53	(0~149)s	$U=0.2\text{s}$		
		体积	700408		(7.5~8.0)ml	$U=0.2\text{ml}$		
105	*电工电子燃烧试验机	长度	701024	电工电子燃烧试验机校准规范 STJF1001	(0.1~600)mm	$U=0.02\text{mm}$		
		角度	701024		(0~90)°	$U=0.15^\circ$		
		时间	701024		(0.01~3600)s	$U=0.07\text{s}$		
106	挠曲测试器	长度	600699	挠曲试验器校准规范 STJF 1037	(0~100)mm	$U=(0.01\sim 0.03)\text{mm}$		
		角度	600699		(120±1)°	$U=0.4^\circ$		
107	*针状、片状规准仪	长度	700848	针状、片状规准仪校准规范 JJF 1593	(0~100)mm	$U=0.04\text{mm}$		
108	咬噬测试仪	长度	600699	咬噬测试仪校准规范 STJF 1036	(0~100)mm	$U=0.05\text{mm}$		
109	*净浆标准稠度与凝结时间测定仪	长度	700809	净浆标准稠度与凝结时间测定仪检定规程 JJG(建材) 105	(0~300)mm	$U=(0.05\sim 0.08)\text{mm}$		
		角度	600303		(10°~90°)	$U=0.2^\circ$		
		质量	620199		(0.1~4000)g	$U=0.2\text{g}$		
110	*混凝土坍落度筒	长度	700812	混凝土坍落度仪校准规范 JJF(浙) 1093	(0~300)mm	$U=(0.05\sim 0.08)\text{mm}$		
111	*标准试验针、销、指	长度	600699	标准试验针、销、指校准规范 STJF 1025	(0.1~300)mm	$U=(0.05+0.025L)\text{mL-m}$		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		角度	60069 9		0.1° ~ 360°	$U=2'$		
		力值	60069 9		(0.1~ 60)N	$U_{rel}=2$ %		
11 2	*断差 尺	长度	70089 9	断差尺校准规范 JJF(浙)1130	(-50~ +50)mm	$U=$ 0.01 mm		扩项
11 3	*湿膜 厚度测 量规	长度	60069 9	湿膜厚度测量规 校准规范 JJF 1484	(0~3000) μ m	梳规: $U=2.4\mu$ m		扩项
		长度	60069 9		(0~3000) μ m	轮 规: $U=0$.8 μ m		
11 4	*碳化 深度测 量仪和 测量尺	长度	60069 9	碳化深度测量仪 和测量尺校准规 范 JJF 1721	指针式: (0~ 100)mm 数显式: (0~ 100)mm	$U=0.08$ mm $U=0.02$ mm		扩项
11 5	*电解 式(库 仑)测 厚仪	长度	60063 5	电解式(库仑)测 厚仪校准规范 JJF 1707	(0.1~30) μ m	$U_{rel}=7$ %		扩项
11 6	*坐标 测量机	长度	60060 1	坐标测量机校准 规范 JJF 1064	X:(0~ 1000)mm, Y :(0~ 1000)mm, Z :(0~ 800)mm	$U=(1.5$ $+6L)$ μ m L:m (尺 寸), $U=0.5$ μ m (探测 误差)		变更

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
117	纤维卷尺、测绳	长度	600110	纤维卷尺、测绳 检定规程 JJG 5	(0~50) m	$U=0.2$ $\text{mm}+2\times$ $10^{-7}L$		扩项
118	*线缆计米器、量码表	长度	600117	线缆计米器 JJG 987	(0.1~5000) m	$U_{\text{rel}}=0.2\%$		扩项
					Φ (90~300) mm	$U=0.4$ mm		
119	圆柱螺纹量规	中径	600612	圆柱螺纹量规 JJF 1345	M (5~200) mm	$U=3\mu\text{m}$ $\sim 5\mu\text{m}$		变更
120	*沥青针入度仪	长度	700850	沥青针入度仪校准规范 JJF1208	(0~100) mm	$U=(0.01\sim 0.02)\text{m}$ m		变更
		角度	700850		$0^{\circ}\sim 100^{\circ}$	$U=10'$		
		质量	700850		(0~3000) g	$U=0.03$ g		
121	*泼水度试验机	长度	6099	泼水度试验机校准规范 STJF1019	(0~300) mm	$U=0.02\text{m}$ m		变更
		角度	6099		$(45\pm 1)^{\circ}$	$U=0.3^{\circ}$		
		时间	6099		(0~100) s	$U=0.1\text{s}$		
二、热学								
1	*闪点测定仪	温度	681007	开口/闭口闪点 测定仪校准规范 JJF 1384	(70~220) $^{\circ}\text{C}$	$U=(3.5\sim 8.0)^{\circ}\text{C}$		
2	*沙尘试验设备	温度	610312	沙尘试验设备校准规范 JJF(军工) 18	(5~95) $^{\circ}\text{C}$	$U=(0.3\sim 0.4)^{\circ}\text{C}$		
		湿度	610312		10%RH~30%RH	$U=3\%$ RH		
		风速	610312		(1.5~29) m/s	$U=(0.2\sim 1)\text{m/s}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
		沙尘沉降速率	610312		6g/(m ² .d)	U=0.3g/(m ² .d)		
3	热像仪	辐射温度	610508	热像仪校准规范 JJF 1187	(50~500) °C	U=(0.7~2.5)°C		
4	温度校准仪	温度	610201	温度校准仪校准规范 JJF 1309	TC 测量: (-50~1300) °C	U=(0.2~0.5)°C		
					RTD 测量: (-50~800) °C	U=(0.2~0.4)°C		
					TC 输出: (-50~700) °C	U=(0.2~0.5)°C		
					RTD 输出: (-50~700) °C	U=(0.1~0.4)°C		
5	*环境试验设备	温度	610305	环境试验设备温度、湿度校准规范 JJF 1101	(-40~0) °C	U=(0.4~0.3)°C		变更
					(0~300) °C	U=(0.3~0.5)°C		
		湿度	610305		10%RH~95%RH	U=3% RH		
6	温度巡回检测仪	温度	610204	温度巡回检测仪校准规范 JJF 1171	(-30~300) °C	U=0.20 °C		
7	*盐雾试验箱	温度	610311	盐雾试验箱校准规范 JJF (辽) 75	(30~60) °C	U=0.3 °C		
		盐雾沉降率	610310		(1.0~2.0) mL/(h. 80cm ²)	U=0.6 mL/(h. 80cm ²)		
8	机械式温湿度计	温度	610603	机械式温湿度计检定规程 JJG 205	(15~30) °C	U=(0.3~0.5)°C		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		湿度	610603		40%RH~80%RH	$U=3\%$ RH		
9	工作用辐射温度计	辐射温度	610505	工作用辐射温度计检定规程 JJG 856	(50~500) °C	$U=(0.6\sim 2.2)^\circ\text{C}$		
					(500~1200) °C	$U=(5\sim 7)^\circ\text{C}$		
10	工作用玻璃液体温度计	温度	610113	工作用玻璃液体温度计检定规程 JJG 130	(-30~300) °C	$U=(0.10\sim 0.15)^\circ\text{C}$		
11	*工业过程测量记录仪	温度	610203	工业过程测量记录仪检定规程 JJG 74	(-200~0) °C	$U=(0.8\sim 0.3)^\circ\text{C}$		
					(0~1370) °C	$U=(0.3\sim 1.3)^\circ\text{C}$		
12	*箱式电阻炉	温度	610308	箱式电阻炉校准规范 JJF 1376	(300~1000) °C	$U=(2.5\sim 4.2)^\circ\text{C}$		
13	*橡胶圆盘摆动硫化仪	温度	610115	橡胶圆盘摆动硫化仪检定规程 JJG(化工) 101	(100~200) °C	$U=(0.3\sim 1.3)^\circ\text{C}$		
		角度	610115		-3° ~3°	$U=0.2^\circ$		
		扭矩	610115		(10~100) N.m	$U_{\text{rel}}=1.3\%$		
14	数字温湿度计	温度	610603	数字温湿度计检定规程 JJG(粤) 047	(15~30) °C	$U=(0.3\sim 0.5)^\circ\text{C}$		
		湿度	610603		40%RH~80%RH	$U=3\%$ RH		
15	*蒸汽灭菌器温度计	温度	610310	医用热力灭菌设备温度计校准规范 JJF 1308	(50~140) °C	$U=0.3^\circ\text{C}$		
16	工业铂热电阻	温度	610110	工业铂、铜热电阻检定规程 JJG	(-30~100) °C	$U=0.02^\circ\text{C}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
				229	(100~300) °C	$U=0.05$ °C		
17	*熔点测定仪	熔点	030507	熔点测定仪检定规程 JJG 701	(50~300) °C	$U=0.3$ °C		
18	*干体式温度校准器	温度	610303	干体式温度校准器校准方法 JJF 1257	(-50~400) °C	$U=(0.3 \sim 0.5)$ °C		
19	温度变送器	温度	610210	温度变送器校准规范 JJF 1183	(-30~300) °C	$U=(0.3 \sim 0.5)$ °C		
20	温度数据采集仪	温度	610203	温度数据采集仪校准规范 JJF 1366	(-30~300) °C	$U=(0.3 \sim 0.5)$ °C	不做内置传感器类型	
21	WBGT 指数仪温度计	温度	610603	WBGT 指数仪温度计校准规范 JJF 1407	(60~120) °C	$U=0.3$ °C		
22	*水泥安定性试验用沸煮箱	温度	700831	水泥安定性试验用沸煮箱检定规程 JJG(建材) 109	(30~100) °C	$U=0.3$ °C		
23	*八篮烘箱	温度	700121	八篮烘箱校准规范 JJF(纺织) 011	(50~300) °C	$U=0.3$ °C		
24	表面温度计	温度	610118	表面温度计校准规范 JJF 1409	(50~400) °C	$U=(0.8 \sim 1.4)$ °C		扩项
25	*示差扫描热量计	温度	681003	示差扫描热量计检定规程 JJG 936	(30~575) °C	$U=(0.7 \sim 1.2)$ °C		扩项
		热量	681003		(23~107.6) J/g	$U_{rel}=1.2\% \sim 1.8\%$		
26	*热重分析仪	温度	681013	热重分析仪检定规程 JJG 1135	(150~800) °C	$U=(0.8 \sim 2.1)$ °C		扩项
		质量	681013		(0~20) mg	$U=(0.008 \sim 0.012)$ mg		
27	温湿度记录仪	温度	610603	温湿度记录仪校准规范	(15~30) °C	$U=0.5$ °C		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		湿度	610603	JJF(浙)1049	40%RH~80%RH	$U=(1.6\sim2.3)\%RH$		
28	*蒸汽灭菌锅	温度	610603	蒸汽灭菌器温度、压力校准规范 JJF(浙)1120	(55~130)℃	$U=0.2\text{℃}$		扩项
		压力	610310		(0~500)kPa	$U=2.0kPa$		
29	*微波消解仪	温度	650109	微波消解仪校准规范 JJF(蒙)030	(80~160)℃	$U=(0.6\sim0.9)\text{℃}$		扩项
30	*换气老化试验箱	温度	610314	空气热老化试验箱校准规范 JJF(蒙)038	(15~300)℃	$U=(0.3\sim0.6)\text{℃}$		扩项
		换气次数	610314		(1~200)次/小时	$U_{rel}=2\%$		
31	*聚合酶链反应分析仪	温度	680906	聚合酶链反应分析仪校准规范 JJF1527	(15~105)℃	$U=0.4\text{℃}$		扩项
32	*电热水浴锅	温度	610309	电热恒温水浴锅规范 JJF(辽)118	(0~100)℃	$U=(0.17\sim0.24)\text{℃}$		扩项
33	*氧弹热量计	热值	681001	氧弹热量计 JJG 672	(26430~26490)J/g	$U=39J/g$		扩项
34	防护热板导热系数测试仪	导热系数	6199	防护热板导热系数测试仪校准规范 JJF(浙)1141	0.0328W/(m.K)	$U_{rel}=1\%$		扩项
35	温度开关	温度	42201	温度开关温度参数校准规范 JJF 1632	(-30~300)℃	$U=0.4\text{℃}$		扩项
36	铠装热电偶	温度	610109	铠装热电偶校准规范 JJF1262	(-30~300)℃	$U=(0.3\sim0.4)\text{℃}$		扩项
					(300~1100)℃	$U=(0.7\sim0.9)\text{℃}$		
37	*数字温度指示调节	温度	610119	数字温度指示调节仪检定规程 JJG 617	(-200~0)℃	$U=(0.7\sim0.2)\text{℃}$		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
	仪				(0~1800) °C	$U=(0.2 \sim 1.0)^\circ\text{C}$		
38	*恒温槽（水槽、油槽、水浴锅）	温度	61030 2	恒温槽技术性能测试规范 JJF 1030	(-80~300)°C	$U=0.020^\circ\text{C}$		扩项
39	*双金属温度计	温度	60011 6	双金属温度计检定规程 JJG 226	(-30~300)°C	$U=0.5^\circ\text{C}$		扩项
					(300~500)°C	$U=0.9^\circ\text{C}$		
40	*温度、湿度、振动试验箱	温度	61030 5	温度、湿度、振动综合环境试验系统校准规范 JJF 1270	(-40~0)°C	$U=(0.4 \sim 0.3)^\circ\text{C}$		扩项
					(0~200)°C	$U=(0.3 \sim 0.5)^\circ\text{C}$		
		湿度	61030 5		30%RH~95%RH	$U=3.3\%RH$		
		加速度	61030 5		(1~100)m/s ²	$U_{rel}=3\%$		
41	工作用廉金属热电偶	温度	61010 6	廉金属热电偶校准规范 JJF 1637	(-30~300)°C	$U=(0.3 \sim 0.4)^\circ\text{C}$		扩项
					(300~1100)°C	$U=(0.7 \sim 0.9)^\circ\text{C}$		
三、力学								
1	涂膜铅笔划痕硬度计	质量	62099 9	铅笔硬度计校准规范 JJF(石化) 007	(50~1000) g	$U=(0.20 \sim 0.50)\text{g}$		
		角度	62099 9		(40~50)°	$U=0.3^\circ$		
2	丝网张力计	张力	62072 4	丝网张力计校准规范 JJF1465	(7~50)N/cm	$U=(0.08 \sim 1.5)\text{N/cm}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
3	*纸带耐磨试验机	质量	620718	纸带耐磨试验机校准规范 STJF1009	(55~275) g	$U=(0.20\sim 0.52)g$		
		转速	620718		(10~60) r/min	$U=0.8$ r/min		
4	压力传感器	压力	620510	压力传感器(静态) JJG 860	(0.1~60) MPa	$U=0.10$ %FS		
					(-0.1~0.1) MPa	$U=0.13$ %FS		
5	弹性元件式精密压力表和真空表	压力	620502	弹性元件式精密压力表和真空表 JJG 49	(0.1~6) MPa	$U=0.07$ %FS		
					(6~60) MPa	$U=0.07$ %FS		
					(-0.1~0.1) MPa	$U=0.08$ %FS		
6	电子式万能试验机	力值	620711	电子式万能试验机检定规程 JJG 475	20N~2000kN	$U_{rel}=0.40\%$		
		速度	620711		(5~1000) mm/m in	$U_{rel}=0.13\%$		
		长度	620711		(5~1000) mm	$U_{rel}=0.13\%$		
7	*金属布氏硬度计	力值	620901	金属布氏硬度计检定规程 JJG 150	5N~50kN	$U_{rel}=0.40\%$		
		硬度	620901		(8~125) HBW	$U_{rel}=1.6\%$		
					(125~225) HBW	$U_{rel}=1.6\%$		
					(225~650) HBW	$U_{rel}=1.6\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
8	弹性元件式一般压力表、压力真空表和真空表	压力	620503	弹性元件式一般压力表、压力真空表和真空表检定规程 JJG 52	(-0.1~60) MPa	$U=0.26$ %FS		
9	拉力、压力和万能试验机	力值	620711	拉力、压力和万能试验机检定规程 JJG 139	20N~2000kN	$U_{rel}=0.40\%$		
		长度	620711		(5~1000)mm	$U_{rel}=0.13\%$		
10	数字压力计	压力	620504	数字压力计检定规程 JJG 875	(0.1~60) MPa	$U=0.06$ %FS		变更
					(-0.1~0.1) MPa	$U=0.08$ %FS		
11	砝码	质量	620101	砝码检定规程 JJG 99	(1~500)mg	$U=(0.012\sim 0.024)$ mg		
					(1~500)g	$U=(0.03\sim 0.16)$ mg		
					(1~30)kg	$U=(0.07\sim 0.4)$ g		
12	*金属洛氏硬度计	力值	620904	金属洛氏硬度计(A, B, C, D, E, F, G, H, K, N, T 标尺) 检定规程 JJG 112	10N~2kN	$U_{rel}=0.40\%$		
		硬度	620904		(80~88)HRA	$U=0.5$ HRA		
					(85~100)HRB	$U=0.5$ HRB		
					(20~70)HRC	$U=0.5$ HRC		
					(70~91)HR15N	$U=0.6$ HR		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(42~80)HR30N	$U=0.6$ HR		
					(20~70)HR45N	$U=0.6$ HR		
					(73~93)HR15T	$U=1.0$ HR		
					(43~82)HR30T	$U=1.0$ HR		
13	金属维氏硬度计	力值	620914	金属维氏硬度计 检定规程 JJG 151	(5~1000)N	$U_{rel}=0.40\%$		
		硬度	620914		显微及小 试验力维 氏硬 度: (100 ~800)HV	$U_{rel}=4.5\%$		
					维氏硬度: (700~ 800)HV	$U_{rel}=1.8\%$		
14	泥浆密度计	密度	700811	泥浆密度计检 程 JJG 1045	(0.960~ 3.000)g/c m ³	$U=0.00$ 4g/cm ³		
15	李氏密度瓶	容量	620299	李氏密度瓶检 定规程 JJG(交 通)092	(1~24) ml	$U_{rel}=1.5\%$		
16	*数字 指示秤	质量	620112	数字指示秤检 定规程 JJG 539	(0.2~ 60)kg	$U=(0.03\sim$ 5)g		
					(60~ 300)kg	$U=(5\sim$ 15)g		
					(300~ 2000)kg	$U=(0.015\sim$ 0.15)kg		
17	*摆锤 式冲击 试验机	能量	621019	摆锤式冲击试 验机检定规程 JJG 145	(0.5~ 350)J	$U=2.2$ %K _R		
18	*悬臂 梁式冲 击试验	能量	621019	悬臂梁式冲击 试验机检定规程 JJG 608	(1~100)J	$U_{rel}=0.44\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
	机	长度	621019		(100~1000) mm	$U_{rel}=0.3\%$		
19	*抗折试验机	力值	620713	抗折试验机检定规程 JJG 476	20N~60kN	$U_{rel}=0.40\%$		
20	*专用工作测力机	力值	620707	专用工作测力机校准规范 JJF1134	10N~50kN	$U_{rel}=0.40\%$		
21	*扭矩扳子	扭矩	620805	扭矩扳子检定规程 JJG 707	(1~200) Nm	$U_{rel}=1.3\%$		
					(>200~1000) Nm	$U_{rel}=1.2\%$		
22	*韦氏硬度计	硬度	620909	金属韦氏硬度计检定规程 JJG 944	(5~18)HW	$U=0.3$ HW		
23	*里氏硬度计	硬度	620910	里氏硬度计检定规程 JJG 747	(750~830)HLD	$U=5$ HL D		
					(510~670)HLD	$U=4$ HL D		
24	*A型邵氏硬度计	长度	620916	A型邵氏硬度计检定规程 JJG 304	2.5mm	$U=0.005$ mm		
		力值	620916		(0.05~10)N	$U=0.03$ N		
25	*电子天平	质量	620105	电子天平检定规程 JJG 1036	(10~1000) mg	$U=(0.022\sim 0.05)$ mg		
					(>1~1000) g	$U=(0.06\sim 2.0)$ mg		
					(>1~2) kg	$U=(2.2\sim 3.5)$ mg		
					(>2~30) kg	$U=15$ mg~0.19g		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					(>30~100) kg	$U=$ (0.5~5) g		
26	*转速表	转速	62110 2	转速表检定规程 JJG 105	(30~10000) r/m in	$U_{rel}=0.$ 062%		
					(>10000~20000) r/m in	$U_{rel}=0.$ 057%		
27	工作玻璃浮计	密度	62020 2	工作玻璃浮计检定规程 JJG 42	(800~1400) kg/m ³	$U=0.30$ kg/m ³		
28	*工作测力仪	力值	62070 7	工作测力仪检定规程 JJG 455	(2~200) N	$U_{rel}=0.$ 40%		
					(0.2~20) kN	$U_{rel}=0.$ 40%		
					(20~2000) kN	$U_{rel}=0.$ 39%		
29	*架盘天平	质量	62010 9	架盘天平检定规程 JJG 156	(1~200) g	$U=0.04$ g		
					(>0.2~0.5) kg	$U=0.10$ g		
					(>0.5~1) kg	$U=0.20$ g		
30	*机械天平	质量	62010 4	机械天平检定规程 JJG 98	(1~500) mg	$U=0.08$ mg		变更
					(>0.5~20) g	$U=0.20$ mg		
					(>20~200) g	$U=0.5$ mg		
31	*D型邵氏硬度计	长度	62091 6	D型邵氏硬度计 检定规程 JJG1039	1.25mm	$U=0.03$ mm		
		力值	62091 6		(0~44.5) N	$U=0.09$ N		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
32	*轮胎压力表	压力	62050 2	轮胎压力表检定规程 JJG 927	(0~2.5) MPa	$U=0.4$ %FS		
33	*A0 型邵氏硬度计	长度	62091 6	A0 型邵氏硬度计校准规范 JJF1312	(0~20) mm	$U=0.00$ 4mm		
		力值	62091 6		(0~8)N	$U=0.01$ 3N		
34	*扭矩扳子检定仪	扭矩	62080 3	扭矩扳子检定仪检定规程 JJG 797	(0.2~100)Nm	$U_{rel}=0.4$ %		
35	弹簧冲击器	能量	62109 9	弹簧冲击器校准规范 JJF1475	(0.1~1)J	$U_{rel}=3$ %		
36	*扭转试验机	扭矩	62080 6	扭转试验机检定规程 JJG 269	(2~200) Nm	$U_{rel}=0.4$ %		
37	*电液伺服万能试验机	力值	62071 1	电液伺服万能试验机检定规程 JJG1063	(2~2000)kN	$U_{rel}=0.4$ %		
38	*测功装置	转速	62080 9	测功装置检定规程 JJG 653	(30~20000)r/m in	$U_{rel}=0.18$ %		
		转矩	62080 9		(1~1000)N.m	$U_{rel}=0.4$ %		
39	*汽车制动操纵力计	力值	62070 7	汽车制动操纵力计校准规范 JJF 1169	(100~1000)N	$U_{rel}=0.4$ %		
40	*引线弯折试验机	质量	70102 3	引线弯折试验机检定规程 JJG(粤) 022	(5~500)g	$U=0.2$ g		
		转速	70102 3		(10~80)r/min	$U=0.3$ r/min		
		角度	70102 3		(0~360) °	$U=0.5$ °		
41	*A 型巴氏硬度计	硬度	62092 1	A 型巴氏硬度计检定规程 JJG610	(42~88)HBa	$U=0.6$ HBa		
42	*压力变送器	压力	62051 2	压力变送器检定规程 JJG882	(-0.1~0.1)MPa	$U=0.12$ %FS		变更

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(0.1~60) MPa	$U=0.08$ %FS		
43	*转矩 转速测量装置	转矩	62060 7	转矩转速测量装置 检定规程 JJG924	(10~200)Nm	$U_{rel}=0.5\%$		
		转速	62060 7		(30~10000) r/min	$U_{rel}=0.3\%$		
44	*门尼 粘度计	温度	70070 2	橡胶门尼粘度计 检定规程 JJG(化工)102	(10~300) °C	$U=0.3$ °C		
		力值	70070 2		(5~15)kN	$U_{rel}=0.4\%$		
		转速	70070 2		(1~3) r/min	$U_{rel}=0.2\%$		
		门尼 值	70070 2		(100~200) 门尼 值	$U_{rel}=1.4\%$		
45	*离心 机	转速	62111 2	离心式恒加速度 试验机检定规程 JJG 972	(30~30000) r/min	$U_{rel}=0.3\%$		
46	*塑料 洛氏硬 度计	力值	62090 8	塑料洛氏硬度计 检定规程 JJG884	(0.05~2) kN	$U_{rel}=0.4\%$		
		硬度	62090 8		(114~125)HRR	$U=0.9$ HRR		
					(70~94)HRE	$U=1.0$ HRE		
					(100~120)HRL	$U=0.9$ HRL		
47	*模拟 指示秤	质量	62011 3	模拟指示秤检定 规程 JJG 13	(0.2~60) kg	$U=(0.4$ $\sim 21)g$		
					>60kg~300kg	$U=(0.0$ $21\sim 0.042)k$ g		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					>300kg~ 2000kg	$U=(0.042\sim 0.16)\text{kg}$		
48	*非自行指示秤	质量	62011 0	非自行指示秤检定规程 JJG 14	(3~ 500)kg	$U=(0.014\sim 0.054)\text{kg}$		
					>500kg~ 2000kg	$U=(0.054\sim 0.19)\text{kg}$		
49	*浮标式氧气吸入器	压力	62051 9	浮标式氧气吸入器检定规程 JJG 913	(0~15) MPa	$U=0.9\%$ FS		
		流量	62051 9		(0~10) L/min	$U=1.0\%$ FS		
50	*拉链拉合轻滑度测试仪	力值	03010 1	拉链拉合轻滑度测试仪校准规范 JJF (浙) 1114	(0~20) N	$U=0.1\text{N}$		
		速度	03010 1		(1000~ 1500)mm/m in	$U=10\text{m}/\text{min}$		
		长度	03010 1		(20~40) mm	$U=0.3\text{mm}$		
51	*MIT式耐折度仪	张力	70041 4	MIT式耐折度仪检定规程 JJG (轻工) 59	(0~ 14.7) N	$U=0.1\text{N}$		
		角度	70041 4		(0~360) °	$U=0.5^\circ$		
		折叠速度	70041 4		(0~200) min^{-1}	$U=1\text{min}^{-1}$		
52	*指针式微压表	压力	62051 6	指针式微压表检定规程 JJG(粤)020	(-30~ 30) kPa	$U=0.8\%$ FS		
53	精密杯形和U形液体压力计	压力	62051 5	精密杯形和U形液体压力计检定规程 JJG 241	(-8~8) kPa	$U=0.1\%$ FS		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
54	压力式六氟化硫气体密度控制器	压力	620503	压力式六氟化硫气体密度控制器检定规程 JJG 1073	(-0.1~0.9)MPa	$U=0.3\%$ FS		
55	*界面张力仪	张力	104206	界面张力仪校准规范 JJF1464	(5~100)mN/m	$U=0.14$ mN/m		
56	*液压千斤顶	力值	620720	液压千斤顶检定规程 JJG 621	(20~2000) kN	$U_{rel}=0.40\%$		
57	*便携式洛氏硬度计	硬度	620904	便携式洛氏硬度计校准规范 JJF1594	(20~88)HRA	$U=0.7$ HRA		
					(20~100)HRB	$U=0.7$ HRB		
					(20~70)HRC	$U=0.7$ HRC		
					(70~91)HR15N	$U=1.0$ HR		
					(42~80)HR30N	$U=1.0$ HR		
					(20~70)HR45N	$U=1.0$ HR		
					(73~93)HR15TW	$U=1.0$ HR		
					(43~82)HR30TW	$U=1.0$ HR		
(12~72)HR45TW	$U=1.0$ HR							
58	*便携式布氏硬度计	硬度	620901	便携式布氏硬度计校准规范 JJF1595	(75~400)HBW	$U_{rel}=1.6\%$		
59	*纺织专用洗涤机	转速	700199	纺织专用洗涤机(洗衣机、干衣机、脱水机)校准规范 STJF1021	(50~2000)r/min	$U=(0.5\sim 2)$ r/min		
		温度	700199		(20~100)℃	$U=0.3$ ℃		
		时间	700199		(1~60)min	$U=2$ s		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
60	*压力控制器	压力	620511	压力控制器检定规程 JJG544	(-0.1~60)MPa	$U=0.3\%$ FS		
61	*医用离心机	转速	621112	医用离心机校准规范 JJF(浙)1117	(100~30000)r/min	$U_{rel}=0.3\%$		
62	液体相对密度天平	相对密度	620107	液体相对密度天平检定规程 JJG171	0~2.0000	$U=0.0006$		
63	*水泥细度负压筛析仪	压力	700830	水泥细度负压筛析仪校准规范 JJF1827	(-6000~-4000)Pa	$U=90Pa$		变更
		转速	700830		(10~50)r/min	$U_{rel}=0.3\%$		
64	移液器	容量	620305	移液器检定规程 JJG 646	(5~300) μ L	$U=0.7\mu$ L		扩项
					(>300~1000) μ L	$U=2\mu$ L		
					(>1000~2500) μ L	$U=4\mu$ L		
					(>2500~5000) μ L	$U=7\mu$ L		
					(>5000~10000) μ L	$U=10\mu$ L		
					>10mL~200mL	$U_{rel}=0.12\%$		
65	常用玻璃量器	容量	620302	常用玻璃量器检定规程 JJG 196	(0.1~1)mL	$U=0.002$ mL		
					(>1~10)mL	$U=0.004$ mL		
					(>10~20)mL	$U=0.007$ mL		
					(>20~100)mL	$U=0.008$ mL		
					(>100~200)mL	$U=0.004$ mL		
					(>200~500)mL	$U=0.007$ mL		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(>500~1000)mL	$U=0.12$ mL		
					(>1000~2000)mL	$U=0.17$ mL		
66	*漆膜摆式硬度计	时间	620999	漆膜摆式硬度计校准规范 STJF034	(1~60) s	$U=0.4$ s		
		质量	620999		(1~1200) g	$U=(0.1\sim5)$ g		
		长度	620999		(0~500)mm	$U=(0.01\sim0.05)$ m		
67	锐利尖端测试仪	长度	620799	锐利尖端测试仪校准规范 STJF1034	(1~10)mm	$U=0.01$ mm		变更
		力值	620799		(4~5)N	$U=0.1$ N		
68	*电动、气动扭矩扳子	扭矩	620805	电动、气动扭矩扳子校准规范 JJF 1610	(0.5~100) Nm	$U_{rel}=1.3\%$		扩项
69	*漆膜冲击试验器	质量	030106	漆膜冲击试验器校准规范 JJF(石化)002	(0~2000) g	$U=0.3$ g		扩项
		滑筒刻度	030106		(0~600) mm	$U=0.20$ mm		
70	*静力触探仪	力值	620799	静力触探仪校准规范 JJF 1439	(0.1~50) kN	$U_{rel}=0.4\%$		扩项
		压力	620799		(-0.1~1.6) MPa	$U=0.004$ MPa		
71	*杯突试验机	夹紧力	620717	杯突试验机检定规程 JJG583	(1~10) kN	$U_{rel}=0.5\%$		扩项
		试样和模具尺寸	620717		(0.5~70) mm	$U=0.04$ mm		
		杯突值 IE	620717		(0~16) mm	$U=0.01$ mm		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
72	电梯限速器测试仪	速度	03192 2	电梯限速器测试仪校准规范 JJF1374	(0.5~10) m/s	$U_{rel}=0.4\%$		扩项
73	压电加速度计	加速度	62100 4	压电加速度计检定规程 JJG 233	(0.1~10) m/s^2 (20Hz~200Hz)	$U_{rel}=2.0\%$		扩项
74	浮子流量计	流量	62040 9	浮子流量计检定规程 JJG257	液体: (0.3~123) m^3/h (DN15~DN50)	$U=0.3\%FS$		扩项
					气体: (0.002~12) m^3/h (DN2~DN25)	$U=0.3\%FS$		
75	皂膜流量计标准漏孔	流量	62060 8	皂膜流量计标准漏孔校准规范 JJF1627	(0.006~6) L/min	$U_{rel}=1.7\%$		扩项
76	电磁流量计	流量	62041 4	电磁流量计检定规程 JJG1033	(0.3~123) m^3/h (DN25~DN100)	$U_{rel}=0.3\%$		扩项
77	涡街流量计	流量	62041 9	涡街流量计检定规程 JJG 1029	液体: (0.3~123) m^3/h (DN25~DN100)	$U_{rel}=0.3\%$		扩项
		流量	62041 9		气体: (0.002~12) m^3/h (DN2~DN25)	$U_{rel}=0.3\%$		
78	质量流量计	流量	62041 0	质量流量计检定规程 JJG 897	液体: (0.3~123) m^3/h (DN25~DN100)	$U_{rel}=0.3\%$		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
79	涡轮流量计	流量	620412	涡轮流量计检定规程 JJG1037	液体： (0.3~123) m ³ /h (DN25~DN100)	$U_{rel}=0.3\%$		扩项
		流量	620412		气体： (0.002~12) m ³ /h (DN2~DN25)	$U_{rel}=0.3\%$		
80	超声流量计	流量	620420	超声流量计 JJG1030	液体： (0.2~123) m ³ /h (DN25~DN100)	$U_{rel}=0.3\%$		扩项
81	气体容积式流量计	流量	620406	气体容积式流量计检定规程 JJG633	(0.002~12) m ³ /h (DN2~DN25)	$U_{rel}=0.3\%$		扩项
82	*电动振动试验系统	加速度	621008	电动振动试验系统检定规程 JJG948	(2~100) m/s ² (20Hz~2000Hz)	$U_{rel}=3\%$		扩项
		频率	621008		(20~2000) Hz	$U_{rel}=0.03\%$		
		均匀性	621008		1%~50%	$U_{rel}=3\%$		
		失真	621008		0.01%~100%	$U_{rel}=2\%$		
83	*机械式振动试验台	加速度	621008	机械式振动试验台 JJG189	(2~100) m/s ² (20Hz~2000Hz)	$U_{rel}=3\%$		扩项
		频率	621008		(20~2000) Hz	$U_{rel}=0.03\%$		
		均匀性	621008		1%~50%	$U_{rel}=3\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		失真	621008		0.01%~100%	$U_{rel}=2\%$		
84	锐利边缘测试仪	力值	620799	锐利边缘测试仪 校准规范 STJF1033	(1~10) N	$U_{rel}=0.4\%$		扩项
		长度	620799		(0~10) mm	$U=0.03$ mm		
		粗糙度	620799		Ra(0~0.5) μ m	$U=0.1\mu$ m		
		转速	620799		(0~40) mm/s	$U=0.5$ mm/s		
		硬度	620799		(1~60)HR	$U=1.5$ HR		
四、电磁								
1	*接地电阻表	电阻	640310	接地电阻表检定规程 JJG 366	0.001 Ω ~ 10k Ω	$U_{rel}=0.5\%$		
2	*非接触式静电电压测量仪	直流电压	640110	非接触式静电电压测量仪 JJF 1517	(0.1~30) kV	$U_{rel}=1.5\%$		
3	*氧化锌避雷器阻性电流测试仪	电流	700959	氧化锌避雷器阻性电流测试仪校准规范 JJF(浙) 1082	(0.1~100) mA , (45~65) Hz	$U_{rel}=0.3\%$		
		电压	700959		(1~300) V (45~65) Hz	$U_{rel}=0.3\%$		
4	*电子镇流器性能分析仪	输入电压	040906	电子镇流器性能分析仪检定规程 JJG(浙) 63	(1~1000) V (45~65) Hz	$U_{rel}=0.11\%$		
		输出电压	040906		(10~300) V (20~50) kHz	$U_{rel}=0.40\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
		输入电流	04090 6		(0.1~10)A (45~65) Hz	$U_{rel}=0.20\%$		
		输出电流	04090 6		(0.1~1)A (20~50) kHz	$U_{rel}=1.0\%$		
		输入功率	04090 6		(1~600)V (0.1~10)A (45~65) Hz	$U_{rel}=0.25\%$		
		输出功率	04090 6		(10~300)V (0.1~1)A (20~50) kHz	$U_{rel}=1.2\%$		
		频率	04090 6		40Hz~50kHz	$U_{rel}=0.02\%$		
		功率因素	04090 6		0.01~1	$U_{rel}=0.08\%$		
5	*特斯拉计	磁感应强度	64060 1	特斯拉计检定规程 JJG 242	(50、100、200、500、1000、1680) mT	$U_{rel}=0.5\%$		
6	*直流低阻表	电阻	64030 6	直流低阻表检定规程 JJG 837	1mΩ ~ 100kΩ	$U_{rel}=0.2\%$		
7	*电池内阻测试仪	电压	70101 5	电池内阻测试仪校准规范 JJF1620	(1~100)V	$U_{rel}=0.2\%$		
		电阻	70101 5		10mΩ ~ 10kΩ	$U_{rel}=0.5\%~6\%$		
8	*钳形电流表	直流电流	64020 4	钳形电流表校准规范 JJF 1075	(0.01~1000)A	$U_{rel}=1.2\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		交流电流	640204		(0.01~1000)A, (45~65)Hz	$U_{rel}=1.2\%$		
9	*工频单相相位表	相位	640406	工频单相相位表 检定规程 JJG 440	-180°~0°~+180°	$U=0.18^\circ$		
		功率因数	640406		0.01~1	$U_{rel}=0.08\%$		
10	*在线绕组温升测试仪	电阻	701003	在线绕组温升测试仪校准规范 JJF 1540	10mΩ~10kΩ	$U_{rel}=0.10\%$		
11	*数字式交流电参数测试仪	交流电压	640401	数字式交流电参数测量仪校准规范 JJF1491	(1~1000)V (45~65)Hz	$U_{rel}=0.12\%$		
		交流电流	640401		(0.1~20)A (45~65)Hz	$U_{rel}=0.23\%$		
		交流功率	640401		(0.1~10000)W (45~65)Hz	$U_{rel}=0.30\%$		
		频率	640401		40Hz~1kHz	$U_{rel}=0.10\%$		
		功率因数	640401		0.2~1 (45~65)Hz	$U_{rel}=0.20\%$		
12	*继电保护测试仪	电压	040802	继电保护测试仪 检定规程 JJG 1112	DC: (1~750)V	$U_{rel}=0.03\%$		
					AC: (1~750)V (45~65)Hz	$U_{rel}=0.26\%$		
		电流	040802		DC: (1~100)A	$U_{rel}=0.18\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					AC: (1~100) A (45~65) Hz	$U_{rel}=0.25\%$		
13	*电流表、电压表、功率表及电阻表	直流电压	640103	电流表、电压表、功率表及电阻表 检定规程 JJG 124	3.3mV~329.999mV	$U_{rel}=0.062\%$		
					330mV~329.999V	$U_{rel}=0.060\%$		
					330V~1000V	$U_{rel}=0.070\%$		
		交流电压	640102		(1mV~32.999mV) (45Hz~1kHz)	$U_{rel}=0.17\%$		
					(33mV~1000V) (45Hz~1kHz)	$U_{rel}=0.08\%$		
		直流电流	640202		0.1mA~2.1999A	$U_{rel}=0.06\%$		
					2.2A~20A	$U_{rel}=0.12\%$		
		交流电流	640203		(29 μA~2.1999A) (45Hz~1kHz)	$U_{rel}=0.16\%$		
					(2.2A~20A) (45Hz~1kHz)	$U_{rel}=0.42\%$		
		电阻	640305		1.1 Ω ~ 10M Ω	$U_{rel}=0.12\%$		
直流功率	640401	(0.033~1000) V / (0.33mA~2.199A)	$U_{rel}=0.12\%$					

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
14	*多功能校准仪	交流功率	640103	多功能标准源校准规范 JJF1638	(0.033~1000)V/(2.2~20)A	$U_{rel}=0.13\%$		
					(0.33~1000)V/(3.3mA~2.1999A), (45~65)Hz	$U_{rel}=0.15\%$		
					(0.33~1000)V/(2.2~20)A, (45~65)Hz	$U_{rel}=0.35\%$		
		直流电压	640503		(0.01~0.1)V	$U_{rel}=0.0021\%$		
					(0.1~1)V	$U_{rel}=0.0018\%$		
					(1~10)V	$U_{rel}=0.0017\%$		
					(10~100)V	$U_{rel}=0.0022\%$		
					(100~1000)V	$U_{rel}=0.0022\%$		
					交流电压	640503		
(0.001~0.01)V (1~20)kHz	$U_{rel}=0.17\% \sim 0.083\%$							

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(0.01~0.1)V(40~1000)Hz	$U_{rel}=0.033\% \sim 0.013\%$		
					(0.01~0.1)V(1~20)kHz	$U_{rel}=0.042\% \sim 0.026\%$		
					(0.1~1)V(40~1000)Hz	$U_{rel}=0.033\% \sim 0.013\%$		
					(0.1~1)V(1~20)kHz	$U_{rel}=0.041\% \sim 0.023\%$		
					(1~10)V(40~1000)Hz	$U_{rel}=0.033\% \sim 0.013\%$		
					(1~10)V(1~20)kHz	$U_{rel}=0.042\% \sim 0.021\%$		
					(10~100)V(40~1000)Hz	$U_{rel}=0.027\% \sim 0.025\%$		
					(10~100)V(1~20)kHz	$U_{rel}=0.048\% \sim 0.027\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(100~1000)V(40~1000)Hz	$U_{rel}=0.072\% \sim 0.054\%$		
		直流 电流	64050 3		(10~100) μA	$U_{rel}=0.016\% \sim 0.011\%$		
					(0.1~1)mA	$U_{rel}=0.011\% \sim 0.013\%$		
					(1~10)mA	$U_{rel}=0.013\% \sim 0.0048\%$		
					(10~100)mA	$U_{rel}=0.016\% \sim 0.0079\%$		
					(0.1~1)A	$U_{rel}=0.032\% \sim 0.018\%$		
		交流 电流	64050 3		(0.01~0.1)mA(45~100)Hz	$U_{rel}=0.18\% \sim 0.12\%$		
					(0.01~0.1)mA(0.1~5)kHz	$U_{rel}=0.18\% \sim 0.12\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					(0.1~1) mA (45~100) Hz	$U_{rel}=0.16\% \sim 0.11\%$		
					(0.1~1) mA (0.1~5) kHz	$U_{rel}=0.078\% \sim 0.064\%$		
					(0.1~1) mA (5~20) kHz	$U_{rel}=0.17\% \sim 0.11\%$		
					(1~10) mA (45~100) Hz	$U_{rel}=0.16\% \sim 0.11\%$		
					(1~10) mA (0.1~5) kHz	$U_{rel}=0.078\% \sim 0.064\%$		
					(1~10) mA (5~20) kHz	$U_{rel}=0.17\% \sim 0.11\%$		
					(10~100) mA (45~100) Hz	$U_{rel}=0.16\% \sim 0.11\%$		
					(10~100) mA (0.1~5) kHz	$U_{rel}=0.078\% \sim 0.064\%$		
					(10~100) mA (5~20) kHz	$U_{rel}=0.17\% \sim 0.11\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注	
					(0.1~1)A(45~100)Hz	$U_{rel}=0.33\% \sim 0.13\%$			
					(0.1~1)A(0.1~5)kHz	$U_{rel}=0.23\% \sim 0.15\%$			
					(0.1~1)A(5~20)kHz	$U_{rel}=0.48\% \sim 0.38\%$			
		电阻	64050 3		(0.001~1) Ω	$U_{rel}=5.8\% \sim 0.011\%$			
					(1~10) Ω	$U_{rel}=0.0051\% \sim 0.0038\%$			
					(10~100) Ω	$U_{rel}=0.0042\% \sim 0.0034\%$			
					(0.1~1)k Ω	$U_{rel}=0.0036\% \sim 0.0024\%$			
					(1~10)k Ω	$U_{rel}=0.0024\% \sim 0.0035\%$			

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					(10~100)kΩ	$U_{rel}=0.0036\% \sim 0.0045\%$		
					(0.1~1)MΩ	$U_{rel}=0.0045\% \sim 0.0036\%$		
					(1~10)MΩ	$U_{rel}=0.015\% \sim 0.008\%$		
					(10~100)MΩ	$U_{rel}=0.073\% \sim 0.062\%$		
					(0.1~1)GΩ	$U_{rel}=0.72\% \sim 0.62\%$		
		频率			10Hz~1MHz	$U_{rel}=0.012\%$		
15	直流电阻箱	电阻	640304	直流电阻箱检定规程 JJG 982	(0.001~1)Ω	$U_{rel}=5.8\% \sim 0.011\%$		
					(1~10)Ω	$U_{rel}=0.0051\% \sim 0.0038\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					(10~100) Ω	$U_{rel}=0.$ 0042% ~ 0.0034 %		
					(0.1~1)k Ω	$U_{rel}=0.$ 0036% ~ 0.0024 %		
					(1~10)k Ω	$U_{rel}=0.$ 0086% ~ 0.0035 %		
					(10~ 100)k Ω	$U_{rel}=0.$ 0036% ~ 0.0022 %		
					(0.1~1)M Ω	$U_{rel}=0.$ 0045% ~ 0.0036 %		
					(1~10)M Ω	$U_{rel}=0.$ 015% ~ 0.008%		
					(10~ 100)M Ω	$U_{rel}=0.$ 073% ~ 0.062%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					$(0.1 \sim 1) \text{G}\Omega$	$U_{\text{rel}}=0.72\% \sim 0.62\%$		
16	*接地导通电阻测试仪	电阻	640310	接地导通电阻测试仪检定规程 JJG 984	$1\text{m}\Omega \sim 10\text{m}\Omega$	$U_{\text{rel}}=5.0\%$		
					$10\text{m}\Omega \sim 100\text{m}\Omega$	$U_{\text{rel}}=0.25\%$		
					$100\text{m}\Omega \sim 1000\text{m}\Omega$	$U_{\text{rel}}=0.16\%$		
		电流	640310		$1\text{A} \sim 30\text{A}$	$U_{\text{rel}}=0.21\%$		
17	*绝缘电阻测量仪	绝缘电阻	640308	绝缘电阻表(兆欧表)检定规程 JJG622	$100\Omega \sim 10\text{M}\Omega$	$U_{\text{rel}}=0.3\%$		
					$10\text{M}\Omega \sim 100\text{M}\Omega$	$U_{\text{rel}}=0.6\%$		
					$100\text{M}\Omega \sim 1\text{G}\Omega$	$U_{\text{rel}}=1.3\%$		
					$1\text{G}\Omega \sim 10\text{G}\Omega$	$U_{\text{rel}}=2.5\%$		
					$10\text{G}\Omega \sim 100\text{G}\Omega$	$U_{\text{rel}}=6.4\%$		
		电压			$100\text{V} \sim 5000\text{V}$	$U_{\text{rel}}=1.2\%$		
18	*高绝缘电阻测量仪	绝缘电阻	640309	高绝缘电阻测量仪(高阻计)检定规程 JJG690	$100\Omega \sim 10\text{M}\Omega$	$U_{\text{rel}}=0.3\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					10M Ω ~ 100M Ω	$U_{rel}=0.6\%$		
					100M Ω ~ 1G Ω	$U_{rel}=1.3\%$		
					1G Ω ~ 10G Ω	$U_{rel}=2.5\%$		
					10G Ω ~ 100G Ω	$U_{rel}=6.4\%$		
		电压		100 V ~ 1000 V	$U_{rel}=1.2\%$			
19	*电子式绝缘电阻表	绝缘电阻	640308	电子式绝缘电阻表检定规程 JJG 1005	100 Ω ~ 10M Ω	$U_{rel}=0.3\%$		
					10M Ω ~ 100M Ω	$U_{rel}=0.6\%$		
					100M Ω ~ 1G Ω	$U_{rel}=1.3\%$		
					1G Ω ~ 10G Ω	$U_{rel}=2.5\%$		
					10G Ω ~ 100G Ω	$U_{rel}=6.4\%$		
		电压	640308	100 V ~ 5000 V	$U_{rel}=1.2\%$			
20	*直流漏电流测试仪	直流电流	640206	泄漏电流测量仪检定规程 JJG 843	(0.1 ~ 10)mA	$U_{rel}=0.2\%$		
					(10 ~ 100)mA	$U_{rel}=0.20\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(100~1000)mA	$U_{rel}=0.10\%$		
		直流电压	640206		(10~100)V	$U_{rel}=0.06\%$		
					(100~1000)V	$U_{rel}=0.09\%$		
21	*交流漏电流测试仪	交流电流	640206	泄漏电流测量仪 检定规程 JJG 843	(0.1~10)mA, (45~1000)Hz	$U_{rel}=0.5\%$		
					(10~100)mA, (45~1000)Hz	$U_{rel}=0.5\%$		
		交流电压	640206		(10~100)V, (45~1000)Hz	$U_{rel}=0.09\%$		
					(100~1000)V, (45~1000)Hz	$U_{rel}=0.12\%$		
22	*耐电压测试仪	电压	640113	耐电压测试仪 检定规程 JJG 795	DC:0.1kV~10kV	$U_{rel}=1.2\%$		
					AC:0.1kV~10kV, (45~65)Hz	$U_{rel}=1.2\%$		
		电流	640113		DC:0.1mA~100mA	$U_{rel}=1.3\%$		
					AC:0.1mA~100mA, (45~65)Hz	$U_{rel}=1.4\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
		时间	640113		1s~60s	$U_{rel}=0.6\%$		
23	*线材测试机	导通电阻	701018	线缆测试仪校准规范 JJF 1457	0.1 Ω ~ 100k Ω	$U_{rel}=0.5\%$		
		绝缘电阻	701018		100 Ω ~ 10M Ω	$U_{rel}=0.3\%$		
					10M Ω ~ 100M Ω	$U_{rel}=0.6\%$		
					100M Ω ~ 1G Ω	$U_{rel}=1.3\%$		
		电压	701018		(10~1000)V	$U_{rel}=0.7\%$		
24	*数字功率计	电压	640401	交流数字功率表 检定规程 JJG 780	(1~3.2999)V, (45~65)Hz	$U_{rel}=0.027\%$		
					(3.3~32.9999)V, (45~65)Hz	$U_{rel}=0.043\%$		
					(33~329.999)V, (45~65)Hz	$U_{rel}=0.032\%$		
					(330~600)V, (45~65)Hz	$U_{rel}=0.043\%$		
		电流	640401		(0.1~0.32999)A, (45~65)Hz	$U_{rel}=0.08\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(0.33~1.09999) A, (45~65) Hz	$U_{rel}=0.10\%$		
					(1.1~2.99999) A, (45~65) Hz	$U_{rel}=0.09\%$		
					(3~10.9999) A, (45~65) Hz	$U_{rel}=0.17\%$		
		功率	64040 1		(0.33~1000) V (45~65) Hz (0.09~0.32999) A, (45~65) Hz	$U_{rel}=0.11\%$		
					(0.33~1000) V (45~65) Hz (0.33~0.8999) A, (45~65) Hz	$U_{rel}=0.15\%$		
					(0.33~1000) V (45~65) Hz (0.9~2.1999) A, (45~65) Hz	$U_{rel}=0.13\%$		
					(0.33~1000) V (45~65) Hz (2.2~4.4999) A, (45~65) Hz	$U_{rel}=0.16\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(0.33~1000)V (45~65)Hz (4.5~20)A, (45~65)Hz	$U_{rel}=0.14\%$		
25	*火花机	直流电压	701014	火花试验机校准规范 JJF(鲁)63	(0.1~35)kV	$U_{rel}=1.2\%$	只测输出电压	
		交流电压	701014		(0.1~35)kV, (45~65)Hz	$U_{rel}=1.5\%$		
26	*插头线综合测试仪	耐电压	640113	安规综合测试仪校准规范 JJF(电子)0004	(0.1~10)kV, (45~65)Hz	$U_{rel}=1.2\%$		
		击穿电流	640113		(0.1~100)mA, (45~65)Hz	$U_{rel}=1.3\%$		
		绝缘电阻	640308		100Ω~100GΩ, (10~1000)V	$U_{rel}=0.3\%~6.4\%$		
		时间	640308		(1~3600)s	$U_{rel}=0.6\%$		
		接地电阻	640310		1mΩ~10mΩ	$U_{rel}=5.0\%$		
					10mΩ~100mΩ	$U_{rel}=0.25\%$		
					100mΩ~1000mΩ	$U_{rel}=0.16\%$		
		电流	640310		1A~30A, (45~65)Hz	$U_{rel}=0.21\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
27	*安规综合测试仪	耐电压	64050 2	安规综合测试仪 校准规范 JJF (电子) 0004	(0.1~10)kV, (45~65)Hz	$U_{rel}=1.2\%$		
		击穿电流	70101 4		(0.1~100)mA, (45~65)Hz	$U_{rel}=1.3\%$		
		绝缘电压			(0.01~1)kV	$U_{rel}=0.6\%$		
		绝缘电阻	64030 8		100Ω~10MΩ	$U_{rel}=0.3\%$		
					10MΩ~100MΩ	$U_{rel}=0.6\%$		
					100MΩ~1GΩ	$U_{rel}=1.3\%$		
					1GΩ~10GΩ	$U_{rel}=2.5\%$		
					10GΩ~100GΩ	$U_{rel}=6.4\%$		
		泄漏电压	64020 6		100mV~750V, 45Hz~1kHz	$U_{rel}=0.05\%$		
		泄漏电流	64020 6		1μA~1A, 45Hz~1kHz	$U_{rel}=0.06\%$		
		接地电阻	64031 0		0.1mΩ~1mΩ	$U_{rel}=13\%$		
					1mΩ~10mΩ	$U_{rel}=5.0\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					10mΩ ~ 100mΩ	$U_{rel}=0.25\%$		
					100mΩ ~ 1000mΩ	$U_{rel}=0.16\%$		
		接地电流	640310		1A~30A, (45~65)Hz	$U_{rel}=0.21\%$		
		设定时间	640502		(1~3600)s	$U_{rel}=0.06\%$		
28	*防静电腕带 防静电鞋测试仪	电阻	640312	静电腕带 / 脚盘 测试仪校准规范 JJF(电子) 31502	(10 ⁵ ~10 ⁷)Ω, (9V~250V)	$U_{rel}=0.03\%$		
					(10 ⁷ ~10 ⁸)Ω, (9V~250V)	$U_{rel}=0.06\%$		
					(10 ⁸ ~10 ⁹)Ω, (9V~250V)	$U_{rel}=1.03\%$		
29	*表面电阻测试仪	电阻	640312	表面电阻测试仪 校准规范 JJF 1285	(10 ² ~10 ⁷)Ω, (9V~250V)	$U_{rel}=0.03\%$		
					(10 ⁷ ~10 ⁸)Ω, (9V~250V)	$U_{rel}=0.06\%$		
					(10 ⁸ ~10 ⁹)Ω, (9V~250V)	$U_{rel}=1.03\%$		
					(10 ⁹ ~10 ¹⁰)Ω, (9V~250V)	$U_{rel}=2.05\%$		
					(10 ¹⁰ ~10 ¹¹)Ω, (9V~250V)	6.4%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
30	*直流电桥	电阻	640307	直流电桥检定规程 JJG 125	0.001 Ω , 0.01 Ω , 1 Ω , 10 Ω , 100 Ω , 1000 Ω	$U_{rel}=0.012\%$	只测单臂电桥	
					(0.01~1) Ω	$U_{rel}=5.8\%$		
					(1~10) Ω	$U_{rel}=0.58\%$		
					(10~100) Ω	$U_{rel}=0.12\%$		
					(0.1~10) k Ω	$U_{rel}=0.58\%$		
					(10~100) k Ω	$U_{rel}=0.12\%$		
31	*电子负载	直流电压	701020	直流电子负载校准规范 JJF 1462	(0.1~1000)V	$U_{rel}=0.02\%$		
		直流电流	701020		(0.01~100)A	$U_{rel}=0.08\%$		
32	交直流高压表	交流电压	640110	数字高压表检定规程 DLT 973	(0.1~30) kV, (45~65) Hz	$U_{rel}=1.9\%$		
		直流电压	640110		(0.1~30) kV	$U_{rel}=1.5\%$		
33	*数据采集器	直流电压	701021	数据采集系统校准规范 JJF 1048	3.3mV~329.999mV	$U_{rel}=0.062\%$		
					330mV~3.29999V	$U_{rel}=0.010\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					3.3V~ 32.9999V	$U_{rel}=0.$ 012%		
					33V~ 329.9999V	$U_{rel}=0.$ 013%		
					330V~ 1000V	$U_{rel}=0.$ 070%		
		交流电压	70102 1		1mV~ 32.9993mV , 45Hz~ 1kHz	$U_{rel}=0.$ 17%		
					33mV~ 329.999mV , 45Hz~ 1kHz	$U_{rel}=0.$ 08%		
					330mV~ 3.29999V, 45Hz~ 1kHz	$U_{rel}=0.$ 04%		
					3.3V~ 32.9999V, 45Hz~ 1kHz	$U_{rel}=0.$ 05%		
					33V~ 329.999V, 45Hz~ 1kHz	$U_{rel}=0.$ 06%		
		直流电流	70102 1		0.03mA~ 3.29999mA	$U_{rel}=0.$ 026%		
					3.3mA~ 32.9999mA	$U_{rel}=0.$ 021%		
					33mA~ 329.999mA	$U_{rel}=0.$ 023%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		交流 电流	70102 1		330mA~ 2.19999A	$U_{rel}=0.$ 062%		
					2.2A~11A	$U_{rel}=0.$ 12%		
					29 μ A~ 329.99 μ A, 45Hz~ 1kHz	$U_{rel}=0.$ 16%		
					0.33mA~ 3.2999mA, 45Hz~ 1kHz	$U_{rel}=0.$ 14%		
					3.3mA~ 32.999mA, 45Hz~ 1kHz	$U_{rel}=0.$ 12%		
					33mA~ 329.99mA, 45Hz~ 1kHz	$U_{rel}=0.$ 11%		
					0.33A~ 2A, 45Hz~ 1kHz	$U_{rel}=0.$ 12%		
		电阻	70102 1		3.3 Ω ~ 10.9999 Ω	$U_{rel}=0.$ 02%		
					11 Ω ~ 32.9999 Ω	$U_{rel}=0.$ 12%		
					33 Ω ~ 329.9999k Ω	$U_{rel}=0.$ 08%		
					330k Ω ~ 3.2999M Ω	$U_{rel}=0.$ 13%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					3. 3M Ω ~ 100M Ω	$U_{rel}=0.61\%$		
		温度	701021		(-50~0) $^{\circ}\text{C}$	$U=(0.5\sim 0.1)^{\circ}\text{C}$		
					(0~1300) $^{\circ}\text{C}$	$U=(0.1\sim 1.4)^{\circ}\text{C}$		
34	*交流电桥	电压	650312	交流电桥检定规程 JJG 441	(0.01~10)V, 1kHz	$U_{rel}=0.5\%$		
		电感	650312		(10 μH ~ 100 μH), 1kHz	$U_{rel}=6\%$		
					0.1mH, 1kHz	$U_{rel}=0.25\%$		
					(1mH~1H), 1kHz	$U_{rel}=0.15\%$		
		电容	650312		(0.1nF~100 μF), 1kHz	$U_{rel}=0.3\%\sim 6\%$		
		电阻	650312		10m Ω ~ 1 Ω , 1kHz	$U_{rel}=0.6\%\sim 6\%$		
					1 Ω ~ 10 Ω , 1kHz	$U_{rel}=0.11\%$		
					10 Ω ~ 10k Ω , 1kHz	$U_{rel}=0.064\%\sim 0.15\%$		
					10k Ω ~ 100k Ω , 1kHz	$U_{rel}=0.15\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		频率	65031 2		20Hz~ 100kHz	$U_{rel}=0.$ 05%		
35	*直流电位差计	直流电压	64010 5	直流电位差计检定规程 JJG 123	100 μ V~ 2.1111V	$U_{rel}=0.$ 011%		
36	*高压漆膜连续性测试仪	直流电压	70101 4	火花试验机校准规范 JJF(鲁)63	100V~ 3000V	$U_{rel}=1.$ 2%	只测试电压	
37	*漆包线电压测试仪	交流电压	70101 4	耐电压测试仪检定规程 JJG 795	100V~ 15kV, (45~ 65)Hz	$U_{rel}=1.$ 3%	只测输出电压	
38	*绝缘导通测试仪	绝缘电阻	64030 8	绝缘电阻表(兆欧表)检定规程 JJG622	100 Ω ~ 10M Ω , (100~ 1000)V	$U_{rel}=0.$ 3%		
					10M Ω ~ 100M Ω , (100~ 1000)V	$U_{rel}=0.$ 6%		
					100M Ω ~ 1G Ω , (100~ 1000)V	$U_{rel}=1.$ 3%		
					1G Ω ~10G Ω , (100~ 1000)V	$U_{rel}=2.$ 5%		
39	*回路电阻测试仪	电阻	64031 3	回路电阻测试仪、直阻仪检定规程 JJG 1052	0.03m Ω ~ 2m Ω	$U_{rel}=1.$ 3%		
		电流	64031 3		(0.1~ 100) A	$U_{rel}=0.$ 5%		
40	*变压器电量测试仪	交流电压	64010 4	电参数测量仪检定规程 JJG(浙)89	(0.01~ 1000)V, (4 0~400)Hz	$U_{rel}=0.$ 12%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		交流电流	64020 3		(0.01~11)A, (40~400)Hz	$U_{rel}=0.20\%$		
		交流功率	64040 1		(0.001~11)kW, (40~400)Hz	$U_{rel}=0.10\%$		
		直流电压	64010 3		(0.01~100)V	$U_{rel}=0.05\%$		
		直流电流	64020 2		(0.01~11)A	$U_{rel}=0.10\%$		
41	*层间短路测试仪	电压	70102 6	层间短路测试仪 校准规范 JJF(ST) 1017	(0.1~6)kV	$U_{rel}=3.2\%$	只测输出电压	
42	*电压降测试仪	电压	64010 4	交流标准电流源 检定规程 JJG(军工)70, 交流标准电压源 检定规程 JJG(军工)71	(0.001~2)V, 10Hz~10kHz	$U_{rel}=0.10\%$		
		电流	64020 3		(0.01~50)A, 10Hz~10kHz	$U_{rel}=0.7\%$		
43	*大电流负载试验机	电压	64010 4	交流标准电流源 检定规程 JJG(军工)70, 交流标准电压源 检定规程 JJG(军工)71	(0.01~100)V, 10Hz~1kHz	$U_{rel}=0.10\%$		
		电流	64020 3		(0.1~100)A, 10Hz~1kHz	$U_{rel}=0.7\%$		
44	*电控负载柜 STK-80 A	电压	64010 4	交流标准电流源 检定规程 JJG(军工)70, 交流标准电压源 检定规程 JJG(军工)71	(0.1~300)V, 10Hz~10kHz	$U_{rel}=0.10\%$		
		电流	64020 3		(0.1~20)A, 10Hz~10kHz	$U_{rel}=0.7\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
45	*电源负载柜	电压	640104	交流标准电压源 检定规程 JJG(军工)71, 交流标准电流源 检定规程 JJG(军工)70, 直流电阻箱 检定规程 JJG982	(0.1~300)V, 10Hz~10kHz	$U_{rel}=0.1\%$		
		电流	640203		(0.1~20)A, 10Hz~1kHz	$U_{rel}=0.7\%$		
		电阻	640304		(0.01~1000)Ω	$U_{rel}=0.10\%$		
46	*电池测试系统	直流电压	640103	电池充放电测试仪 校准规范 JJF(军工)108	(0.01~0.1)V	$U_{rel}=0.010\%$		
					(0.1~1)V	$U_{rel}=0.015\%$		
					(1~10)V	$U_{rel}=0.012\%$		
					(10~100)V	$U_{rel}=0.015\%$		
					(100~1000)V	$U_{rel}=0.02\%$		
		直流电流	640202		(0.001~0.01)A	$U_{rel}=0.35\%$		
					(0.01~0.1)A	$U_{rel}=0.15\%$		
					(0.1~2)A	$U_{rel}=0.28\%$		
					(2~20)A	$U_{rel}=0.40\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(20~500)A	$U_{rel}=0.80\%$		
47	*钳形接地电阻仪	电阻	640310	钳形接地电阻仪检定规程 JJG 1054	(0.1~1) Ω	$U_{rel}=1.2\%$		
					(1~1000) Ω	$U_{rel}=0.14\%$		
48	*漏电起痕试验仪	电压	701016	漏电起痕试验仪校准规范 JJF(浙)1087	(1V~750V), (45~65)Hz	$U_{rel}=0.10\%$		
		电流	701016		(0.01A~1A), (45~65)Hz	$U_{rel}=0.07\%$		
		长度	601016		(0~10)mm	$U=0.01\text{mm}$		
		时间	601016		(0~100)s	$U=0.30\text{s}$		
		质量	601016		10g~1kg	$U=(0.03\sim 0.3)\text{g}$		
49	*变压比测试仪	变压比	640109	变压比电桥检定规程 JJG 970	1~2000	$U_{rel}=0.026\%$		
50	*高电压耐压测试仪	交流电压	640113	高电压耐压测试仪检定规程 JJG(军工)18	0.1kV~100kV(45~65)Hz	$U_{rel}=1.2\%$	不测泄漏电流	
		直流电压	640113		0.1kV~100kV	$U_{rel}=0.6\%$		
		时间	640113		1s~60s	$U_{rel}=1.0\%$		
51	*电参数测量仪	交流电压	640401	电参数测量仪检定规程 JJG(浙)89	(1~1000)V(45~65)Hz	$U_{rel}=0.04\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		交流电流	64040 1		(0.1~20)A (45~65)Hz	$U_{rel}=0.30\%$		
		交流功率	64040 1		(0.1~6000)W (45~65)Hz	$U_{rel}=0.12\%$		
		直流电压	64040 1		(1~1000)V	$U_{rel}=0.01\%$		
		直流电流	64040 1		(0.1~20)A	$U_{rel}=0.22\%$		
		直流功率	64040 1		(0.1~6000)W	$U_{rel}=0.12\%$		
		频率	64040 1		40Hz~1kHz	$U_{rel}=0.03\%$		
		功率因数	64040 1		0.2~1 (45~65)Hz	$U_{rel}=0.12\%$		
52	*工频高压分压器	分压比	64011 4	工频高压分压器 检定规程 JJG 496	(1~100)kV/(1~100)V (45~65)Hz	$U_{rel}=1.5\%$		
53	*过程校验仪	直流电压测量	64050 3	过程校验仪校准 规范 JJF 1472	(0.01~300)V	$U_{rel}=0.05\%$		
		直流电流测量	64050 3		(0.1~100)mA	$U_{rel}=0.1\%$		
		交流电压测量	64050 3		10mV~300V, 10Hz~10kHz	$U_{rel}=0.1\%$		
		交流电流测量	64050 3		0.1mA~200mA, 10Hz~5kHz	$U_{rel}=0.2\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		直流电阻测量	64050 3		0.001 Ω ~ 100k Ω	$U_{rel}=0.$ 1%		
		频率测量	64050 3		1Hz~ 500kHz	$U_{rel}=0.$ 2%		
		直流电压输出	64050 3		(0.001~ 100) V	$U_{rel}=0.$ 1%		
		直流电流输出	64050 3		(0.01~ 100) mA	$U_{rel}=0.$ 2%		
		电阻输出	64050 3		0.001 Ω ~ 10k Ω	$U_{rel}=0.$ 1%		
		频率输出	64050 3		1Hz~ 50kHz	$U_{rel}=0.$ 1%		
		热电偶温度输出	64050 3		(-200~ 1300) $^{\circ}\text{C}$	$U=(0.3$ ~ $1.0)^{\circ}\text{C}$		
		热电阻温度输出	64050 3		(-200~ 850) $^{\circ}\text{C}$	$U=(0.3$ ~ $0.8)^{\circ}\text{C}$		
		热电偶温度测量	64050 3		(-30~ 1300) $^{\circ}\text{C}$	$U=(0.3$ ~ $1.0)^{\circ}\text{C}$		
		热电阻温度测量	64050 3		(-200~ 850) $^{\circ}\text{C}$	$U=(0.3$ ~ $0.8)^{\circ}\text{C}$		
54	*充电平板检测仪	静电电压	64019 9	充电平板检测仪校准规范 JJF(电子)31003	(0.1~ 1020) V	$U_{rel}=1.$ 0%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		时间	640119		0.1s~99.9s	$U_{rel}=1.5\%$		
55	电量变送器	交流电压	640505	交流电量转换为直流电量电工测量变送器检定规程 JJG 126	10mV~1000V (45Hz~65Hz)	$U_{rel}=0.03\%$	只测单相	扩项
		交流电流	640505		0.1mA~10A (45Hz~65Hz)	$U_{rel}=0.05\%$		
		交流功率	640505		10mW~6000W (45Hz~65Hz)	$U_{rel}=0.1\%$		
		功率因数	640505		0.5C~1~0.5L	$U_{rel}=0.2\%$		
		频率	640505		10Hz~1kHz	$U_{rel}=0.01\%$		
56	*电机定子试验装置	交流电压	640599	电机定子试验装置校准规范 JJG (闽)1060	(0.1~3)kV, (45Hz~65Hz)	$U_{rel}=1.2\%$		扩项
		交流电流	640599		(0.1~100)mA, (45Hz~65Hz)	$U_{rel}=1.2\%$		
		电压失真度	640599		(0.05~30)%	$U_{rel}=10\%$		
		绝缘电阻	640599		100Ω~1000MΩ, (10~1000)V	$U_{rel}=1.2\%$		
		开路电压	640599		(10~1000)V	$U_{rel}=1.2\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		直流电阻	640599		1mΩ ~ 20kΩ	$U_{rel}=0.2\%$		
		冲击电压	640599		(0.5~3)kV	$U_{rel}=3\%$		
		波前时间	640599		(0.1~1.2)μs	$U_{rel}=10\%$		
57	*电能质量测试分析仪	交流电压	640501	电能质量测试分析仪检定规程 DL/T 1028	(1~1000)V, (45Hz~1kHz)	$U_{rel}=0.1\%$		扩项
		频率	640501		45Hz~10kHz	$U_{rel}=0.01\%$		
		谐波电压	640501		(1~300)V, (45~65)Hz	$U_{rel}=0.2\%$		
		谐波电流	640501		(0.05~5)A, (45~65)Hz	$U_{rel}=0.2\%$		
58	*交流稳压电源(变频电源)	交流电压	640599	交流标准电流源检定规程 JJG 70(军工), 交流标准电压源检定规程 JJG 71(军工)	1V~400V, 10Hz~10kHz	$U_{rel}=0.10\%$		扩项
		交流电流	640559		0.01A~20A, 10Hz~5kHz	$U_{rel}=0.7\%$		
		频率	640559		10Hz~10kHz	$U_{rel}=0.05\%$		
		失真度	640559		(0.1~30)%	$U_{rel}=10\%$		
59	*直流稳定电源	直流电压	640202	直流稳定电源校准规范 JJF 1597	(0.01~0.1)V	$U_{rel}=0.010\%$		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
			64010 4		(0.1~1)V	$U_{rel}=0.015\%$		
					(1~10)V	$U_{rel}=0.012\%$		
					(10~100)V	$U_{rel}=0.015\%$		
					(100~1000)V	$U_{rel}=0.02\%$		
		直流 电流			(0.001~0.01)A	$U_{rel}=0.35\%$		
					(0.01~0.1)A	$U_{rel}=0.15\%$		
					(0.1~1)A	$U_{rel}=0.28\%$		
					(1~3)A	$U_{rel}=0.25\%$		
					(3~1000)A	$U_{rel}=0.06\%$		
60	*数字多用表	直流电压	64050 4	数字多用表校准规范 JJF 1587	(1~100)mV	$U_{rel}=0.0015\%$		扩项
					(0.1~1)V	$U_{rel}=0.0011\%$		
					(1~10)V	$U_{rel}=0.0008\%$		
					(10~100)V	$U_{rel}=0.0022\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(100~1000)V	$U_{rel}=0.0013\%$		
		交流电压	640504		(1mV~10mV) (1Hz~40Hz)	$U_{rel}=0.035\%$		
					(1mV~10mV) (40Hz~1kHz)	$U_{rel}=0.018\%$		
					(1mV~10mV) (1kHz~20kHz)	$U_{rel}=0.025\%$		
					(10mV~10V) (1Hz~40Hz)	$U_{rel}=0.014\%$		
					(10mV~10V) (40Hz~1kHz)	$U_{rel}=0.011\%$		
					(10mV~10V) (1kHz~20kHz)	$U_{rel}=0.018\%$		
					(10V~100V) (1Hz~40Hz)	$U_{rel}=0.026\%$		
					(10V~100V) (40Hz~1kHz)	$U_{rel}=0.026\%$		
					(10V~100V) (1kHz~20kHz)	$U_{rel}=0.026\%$		
					(100V~1000V) (1Hz~40Hz)	$U_{rel}=0.044\%$		
					(100V~1000V) (40Hz~1kHz)	$U_{rel}=0.041\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		直流 电流	64050 4		(100V~1000V) (1k Hz~20kHz)	$U_{rel}=0.08\%$		
					(10~100) μ A	$U_{rel}=0.0036\%$		
					(100~1000) μ A	$U_{rel}=0.0032\%$		
					(1~10) mA	$U_{rel}=0.0032\%$		
					(10~100) mA	$U_{rel}=0.005\%$		
					(100~1000) mA	$U_{rel}=0.02\%$		
					(1~20) A	$U_{rel}=0.065\%$		
		交流 电流	64050 4		(0.029mA~0.1mA) (10 Hz~20Hz)	$U_{rel}=0.65\%$		
					(0.029mA~0.1mA) (20 Hz~45Hz)	$U_{rel}=0.23\%$		
					(0.029mA~0.1mA) (45 Hz~0.1kHz)	$U_{rel}=0.12\%$		
					(0.029mA~0.1mA) (0.1kHz~5kHz)	$U_{rel}=0.14\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(0.1mA~1.0mA) (10Hz~20Hz)	$U_{rel}=0.58\%$		
					(0.1mA~1.0mA) (20Hz~45Hz)	$U_{rel}=0.23\%$		
					(0.1mA~1.0mA) (45Hz~0.1kHz)	$U_{rel}=0.11\%$		
					(0.1mA~1.0mA) (0.1kHz~5kHz)	$U_{rel}=0.072\%$		
					(0.1mA~1.0mA) (5kHz~10kHz)	$U_{rel}=0.10\%$		
					(1mA~100mA) (10Hz~20Hz)	$U_{rel}=0.55\%$		
					(1mA~100mA) (20Hz~45Hz)	$U_{rel}=0.22\%$		
					(1mA~100mA) (45Hz~0.1kHz)	$U_{rel}=0.10\%$		
					(1mA~100mA) (0.1kHz~5kHz)	$U_{rel}=0.082\%$		
					(1mA~100mA) (5kHz~10kHz)	$U_{rel}=0.10\%$		
					(0.1A~1A) (10Hz~20Hz)	$U_{rel}=0.58\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					(0.1A~1A) (20Hz~45Hz)	$U_{rel}=0.21\%$		
					(0.1A~1A) (45Hz~0.1kHz)	$U_{rel}=0.11\%$		
					(0.1A~1A) (0.1kHz~5kHz)	$U_{rel}=0.16\%$		
					(1A~20A) (45Hz~0.1kHz)	$U_{rel}=0.15\%$		
		电阻	640504		(0.1~10) Ω	$U_{rel}=0.005\%$		
					(10~100) Ω	$U_{rel}=0.002\%$		
					(0.1~1)k Ω	$U_{rel}=0.0015\%$		
					(1~10)k Ω	$U_{rel}=0.0014\%$		
					(10~100)k Ω	$U_{rel}=0.0015\%$		
					(0.1~1)M Ω	$U_{rel}=0.0022\%$		
					(1~10)M Ω	$U_{rel}=0.0065\%$		
					(10~100)M Ω	$U_{rel}=0.068\%$		
					(0.1~0.329999)G Ω	$U_{rel}=0.65\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
61	*电子式交流电能表	电能	64040 2	电子式交流电能表 JJG 596	3× (57.7~ 380)V/3× (0.1~ 50)A, (45 ~ 65)Hz (cos φ =1.0, 0.5L , 0.8C)	$U_{rel}=0.1\%$		扩项
62	*机电式交流电能表	电能	64040 2	机电式交流电能表检定规程 JJG 307	3× (57.7~ 380)V/3× (0.1~ 50)A, (45 ~ 65)Hz (cos φ =1.0, 0.5L , 0.8C)	$U_{rel}=0.1\%$		扩项
五、无线电								
1	晶体管特性图示仪	X轴集电极电压偏转系数	65050 1	半导体管特性图示仪校准规范 JJF 1236	0.001V~ 1000V	$U_{rel}=0.5\%$		
		X轴基极电压偏转系数	65050 1		0.001V~ 1000V	$U_{rel}=0.5\%$		
		Y轴集电极电流偏转系数	65050 1		1 μA~10A	$U_{rel}=0.5\%$		
		阶梯电压	65050 1		1mV~400V	$U_{rel}=2.5\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		阶梯电流	650501		1 μ A~10A	$U_{rel}=2.5\%$		
2	模拟示波器	带宽	650212	模拟示波器检定规程 JJG 262	(1~300)MHz	$U_{rel}=0.8\%$		
		时间	650212		10ns~5s	$U_{rel}=0.25\%$		
		电压	650212		0.2mV~10mV	$U_{rel}=1.3\%$		
					11mV~200V	$U_{rel}=0.6\%$		
3	示波器校准仪	幅值	650213	示波器校准仪检定规程 JJG 278	1mV~100mV(1kHz)	$U_{rel}=0.09\%$		
					100mV~1V(1kHz)	$U_{rel}=0.08\%$		
					1V~10V(1kHz)	$U_{rel}=0.06\%$		
					10V~100V(1kHz)	$U_{rel}=0.08\%$		
					100V~200V(1kHz)	$U_{rel}=0.09\%$		
					扫描时间	650213	0.5ns~5s	$U_{rel}=0.10\%$

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
4	调制度测量仪	调幅	65020 8	调制度测量仪校准规范 JJF 1111	(5~99)% (载频: 150kHz~ 10 MHz, 调制频率: 20Hz~ 10kHz)	$U_{rel}=3\%$		
					5~99% (载频: 10MHz~130 0MHz, 调制 频率: 50Hz~50kHz)	$U_{rel}=1.3\%$		
					(5~99)% (载频: 10MHz~ 1300 MHz, 调制频率: 20Hz~ 50Hz, 50kHz~ 100kHz)	$U_{rel}=3.5\%$		
					(0.4~ 400) kHz, (载频: 150kHz~ 10 MHz 调 制频率: 20~ 10kHz)	$U_{rel}=2.4\%$		
		(0.4~ 400) kHz, (载频: 10MHz~ 1300 MHz 调制频率 (50Hz~ 100kHz)	$U_{rel}=1.3\%$					

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
5	失真度测量仪	失真度	65020 9	失真度测量仪检定规程 JJG 251	0.01%~ 0.1%, 20Hz ~200KHz	U_{rel} =1.3%		
					0.11%~ 100%, 20Hz ~200KHz	U_{rel} =0.8%		
		交流电压	65020 9		1mV~ 32.999mV, 10Hz~ 45Hz	U_{rel} =0. 6%		
					1mV~ 32.999mV, 45Hz~ 10kHz	U_{rel} =0. 5%		
					1mV~ 32.999mV, (10~ 20) kHz	U_{rel} =0. 5%		
					1mV~ 32.999mV, (20~ 50) kHz	U_{rel} =0. 5%		
					1mV~ 32.999mV, (50~ 100) kHz	U_{rel} =0. 6%		
					1mV~ 32.999mV, (100~ 500) kHz	U_{rel} =0. 8%		
					33mV~ 329.999mV , (10~ 45) Hz	U_{rel} =0. 6%		
					33mV~ 329.999mV , 45Hz~ 10kHz	U_{rel} =0. 5%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					33mV~ 329.999mV , (10~ 20) kHz	$U_{rel}=0.5\%$		
					33mV~ 329.999mV , (20~ 50) kHz	$U_{rel}=0.5\%$		
					33mV~ 329.999mV , (50~ 100) kHz	$U_{rel}=0.6\%$		
					33mV~ 329.999mV , (100~ 500) kHz	$U_{rel}=0.8\%$		
					330mV~ 3.29999V, (10~ 45) Hz	$U_{rel}=0.6\%$		
					330mV~ 3.29999V, 45Hz~ 10kHz	$U_{rel}=0.4\%$		
					330mV~ 3.29999V, (10~ 20) kHz	$U_{rel}=0.4\%$		
					330mV~ 3.29999V, (20~ 50) kHz	$U_{rel}=0.5\%$		
					330mV~ 3.29999V, (50~ 100) kHz	$U_{rel}=0.5\%$		
					330mV~ 3.29999V, (100~ 500) kHz	$U_{rel}=0.7\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					3.3V~ 32.9999V, (10~ 45)Hz	$U_{rel}=0.$ 6%		
					3.3V~ 32.9999V, 45Hz~ 10kHz	$U_{rel}=0.$ 4%		
					3.3V~ 32.9999V, (10~ 20)kHz	$U_{rel}=0.$ 5%		
					3.3V~ 32.9999V, (20~ 50)kHz	$U_{rel}=0.$ 5%		
					3.3V~ 32.9999V, (50~ 100)kHz	$U_{rel}=0.$ 7%		
					33V~ 300V, 45Hz~ 1kHz	$U_{rel}=0.$ 5%		
					33V~ 300V, (1~ 10)kHz	$U_{rel}=0.$ 4%		
					33V~ 300V, (10~ 20)kHz	$U_{rel}=0.$ 4%		
6	*抖晃仪	抖晃率	65061 3	抖晃仪校准规范 JJF 1683	(0.001~ 3.999)%	$U_{rel}=1.$ 2%		
7	音频分析仪	电压 (源 输出 部分)	65021 0	音频分析仪校准 规范 JJF 1395	10mV~ 100mV, 10Hz~ 20kHz	$U_{rel}=0.$ 14%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					100mV~ 6V, 10Hz~ 20kHz	$U_{rel}=0.$ 12%		
		频率 (源 输出 部分)	65021 0		20Hz~ 100kHz	$U_{rel}=0.$ 03%		
		电压 (分析 仪器部 分)	65021 0		1mV~ 32.999mV, 10Hz~ 45Hz	$U_{rel}=0.$ 10%		
					1mV~ 32.999mV, 45Hz~ 10kHz	$U_{rel}=0.$ 15%		
					1mV~ 32.999mV, (10~ 20) kHz	$U_{rel}=0.$ 2%		
					1mV~ 32.999mV, (20~ 50) kHz	$U_{rel}=0.$ 10%		
					1mV~ 32.999mV, (50~ 100) kHz	$U_{rel}=0.$ 3%		
					33mV~ 329.999mV , (10~ 45) Hz	$U_{rel}=0.$ 10%		
					33mV~ 329.999mV , 45Hz~ 10kHz	$U_{rel}=0.$ 2%		
					33mV~ 329.999mV , (10~ 20) kHz	$U_{rel}=0.$ 10%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					33mV~ 329.999mV , (20~ 50) kHz	$U_{rel}=0.10\%$		
					33mV~ 329.999mV , (50~ 100) kHz	$U_{rel}=0.10\%$		
					330mV~ 3.29999V, (10~ 45) Hz	$U_{rel}=0.10\%$		
					330mV~ 3.29999V, 45Hz~ 10kHz	$U_{rel}=0.2\%$		
					330mV~ 3.29999V, (10~ 20) kHz	$U_{rel}=0.2\%$		
					330mV~ 3.29999V, (20~ 50) kHz	$U_{rel}=0.3\%$		
					330mV~ 3.29999V, (50~ 100) kHz	$U_{rel}=0.3\%$		
					3.3V~ 32.9999V, (10~ 45) Hz	$U_{rel}=0.3\%$		
					3.3V~ 32.9999V, 45Hz~ 10kHz	$U_{rel}=0.2\%$		
					3.3V~ 32.9999V, (10~ 20) kHz	$U_{rel}=0.3\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					3.3V~32.9999V, (20~50) kHz	$U_{rel}=0.10\%$		
					3.3V~32.9999V, (50~100) kHz	$U_{rel}=0.10\%$		
					33V~300V, 45Hz~1kHz	$U_{rel}=0.3\%$		
					33V~300V, (1~10) kHz	$U_{rel}=0.10\%$		
					33V~300V, (10~20) kHz	$U_{rel}=0.3\%$		
		失真度(分析仪部分)	650210		0.01%~100% (20Hz~100kHz)	$U_{rel}=6.3\%$		
		频率(分析仪部分)	650210		20Hz~100kHz	$U_{rel}=0.05\%$		
8	频谱分析仪	频率	650124	频谱分析仪校准规范 JJF 1396	100Hz~3GHz	$U_{rel}=6 \times 10^{-6}$		扩项
					3GHz~26.5GHz	$U_{rel}=7 \times 10^{-6}$		
		参考电平	650124		(-100~+17) dBm	$U=0.2dB$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		扫频宽度	65012 4		100Hz~ 8GHz	$U_{rel}=0.8\%$		
		垂直显示刻度	65012 4		(0.1~10) d B/div	$U=0.4d$ B		
9	低频信号发生器	频率	65020 5	低频信号发生器 检定规程 JJG 602	10Hz~ 1MHz	$U_{rel}=0.4\%$		
		电压	65020 5		1mV~10V	$U=0.1d$ B		
10	音频(扫频)信号发生器	频率	63020 4	音频信号发生器 检定规程 JJG 607	20Hz~ 200kHz	$U_{rel}=0.06\%$		
		电压	63020 4		1mV~10V	$U_{rel}=0.15\%$		
		频率	65020 1		1Hz~ 250MHz	$U_{rel}=4\times 10^{-7}$		
		电压	65012 4		1mV~10V	$U_{rel}=0.09\%$		
11	函数信号发生器	调幅度	65012 4	函数信号发生器 检定规程 JJG 840	0.1%~99% (载频: 150kHz~ 10MHz 调制 频率: 20Hz~ 10kHz)	$U_{rel}=3.5\%$		扩项
					(0.1~5) % (载频: 10MHz~ 250MHz, 调制频率: 20Hz~ 100kHz)	$U_{rel}=3.8\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		频偏	65012 4		(5~99)% (载频: 10MHz~ 250MHz, 调制频率: 50Hz~ 50kHz)	$U_{rel}=1.3\%$		
					(0.1~ 10)kHz (载 频: 150kHz~ 10MHz, 调 制频率: 50Hz~10kH z)	$U_{rel}=2.4\%$		
					(0.1~ 100)kHz (载频: 10MHz~ 250MHz, 调 制频率: 50Hz~100k Hz)	$U_{rel}=1.3\%$		
12	高频信号发生器	频率	65020 7	信号发生器检定 规程 JJG 173	10Hz~ 3GHz	$U_{rel}=7 \times 10^{-6}$		
					3GHz~ 26.5GHz	$U_{rel}=8 \times 10^{-6}$		
		电平	65020 7		(-100~ 17) dBm	$U=0.20$ dB		
		调幅	65020 7		5%~99% (载波: 0.15MHz~ 10MHz, 调 制频率 50Hz~ 10kHz)	$U_{rel}=2.4\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		调频	65020 7		5%~99% (载波: 10MHz~ 1300MHz, 调制频率: 50Hz~50kHz)	$U_{rel}=1.3\%$		
					(0.4~ 400)kHz, (载波: 0.15MHz~ 10MHz, 调 制频率: 20Hz~ 10kHz)	$U_{rel}=2.4\%$		
					(0.4~ 400)kHz (载 波:10MHz~ 1300MHz, 调制频率 50Hz~ 100kHz)	$U_{rel}=1.3\%$		
13	计数器/频率计	频率	66010 5	通用计数器检定规程 JJG 349, 电子测量仪器内石英晶体振荡器检定规程 JJG 180	10Hz~ 3GHz 3GHz~ 26.5GHz	$U_{rel}=2 \times 10^{-7}$ $U_{rel}=3 \times 10^{-7}$		
14	音频阻抗测试仪	频率	65030 1	HP4192A 低频阻抗分析仪(试行) 检定规程 JJG(电子) 05007	1Hz~ 100kHz	$U_{rel}=0.10\%$		
		阻抗	65030 1		0.1Ω~ 100kΩ	$U_{rel}=0.10\%$		
15	电话机测试仪	馈送电压	65060 4	双音多频电话机测试器检定规程 JJG (YD) 032	(1~100)V	$U_{rel}=0.2\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		环路电流	65060 4		(10~200) mA	$U_{rel}=0.5\%$		
		振铃电压	65060 4		(1~200) V	$U_{rel}=1.0\%$		
		振铃频率	65060 4		(0.1~20) kHz	$U_{rel}=0.01\%$		
		接收信号电平	65060 4		(-30~0) dB	$U=0.2\text{dB}$		
		双音频率	65060 4		(0.1~20) kHz	$U_{rel}=0.01\%$		
16	彩色电视信号发生器	电平	65060 1	电视视频信号发生器校准规范 JJF 1235	(0.1~1.4) V	$U_{rel}=2.0\%$		
		脉冲宽度	65060 1		(1~100) ms	$U=40\text{ns}$		
		频率	65060 1		(1~1000) MHz	$U=1\times 10^{-6}$		
		幅度	65060 1		(-120~30) dBm	$U=3\text{dB}$		
17	示波表	垂直幅度	65021 2	模拟示波器检定规程 JJG 262, 数字多用表校准规范 JJF 1587	0.2mV~10mV	$U_{rel}=1.3\%$		
		水平偏转系数	65021 2		11mV~200V	$U_{rel}=0.6\%$		
		直流电压	65021 2		2ns/div~5s/div	$U_{rel}=0.25\%$		
					(1~329.999) mV	$U_{rel}=0.062\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注		
					330mV~ 3.29999V	$U_{rel}=0.$ 010%				
					3.3V~ 32.9999V	$U_{rel}=0.$ 012%				
					33V~ 329.9999V	$U_{rel}=0.$ 013%				
					330V~ 1000V	$U_{rel}=0.$ 070%				
		交流 电压	65021 2		1mV~ 32.9993mV , (45Hz~ 1kHz)	$U_{rel}=0.$ 17%				
					33mV~ 329.999mV , (45Hz~ 1kHz)	$U_{rel}=0.$ 08%				
					330mV~ 3.29999V, (45Hz~ 1kHz)	$U_{rel}=0.$ 040%				
					3.3V~ 32.9999V, (45Hz~ 1kHz)	$U_{rel}=0.$ 050%				
					33V~ 329.999V, (45Hz~ 1kHz)	$U_{rel}=0.$ 060%				
					330V~ 1000V, (45Hz~ 1kHz)	$U_{rel}=0.$ 070%				
				直流 电阻	65021 2		(0.1~ 10.9999) Ω	$U_{rel}=0.$ 02%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					11 Ω ~ 32.9999 Ω	$U_{rel}=0.$ 12%		
					33 Ω ~ 109.9999 Ω	$U_{rel}=0.$ 08%		
					110 Ω ~ 329.9999 Ω	$U_{rel}=0.$ 08%		
					330 Ω ~ 1.099999k Ω	$U_{rel}=0.$ 08%		
					11k Ω ~ 32.9999k Ω	$U_{rel}=0.$ 08%		
					33k Ω ~ 109.9999k Ω	$U_{rel}=0.$ 080%		
					110k Ω ~ 329.9999k Ω	$U_{rel}=0.$ 080%		
					330k Ω ~ 1.099999M Ω	$U_{rel}=0.$ 12%		
					1.1M Ω ~ 3.299999M Ω	$U_{rel}=0.$ 12%		
					3.3M Ω ~ 10.99999M Ω	$U_{rel}=0.$ 12%		
					11M Ω ~ 32.99999M Ω	$U_{rel}=0.$ 13%		
					33M Ω ~ 109.9999M Ω	$U_{rel}=0.$ 61%		
					33M Ω ~ 109.9999M Ω	$U_{rel}=0.$ 61%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
18	线圈圈数测量仪	圈数	70105 1	YG 系列匝数仪检定规程 SJ 20241	10T~ 10000T	$U_{rel}=0.6\%$		
19	驻极体传声器测试仪	灵敏度电压	63021 1	驻极体传声器测试仪校准规范 JJF 1145	(-80~ -20) dB	$U=1.0dB$ B		
		直流电源电压	63021 1		(0.01~ 100)V	$U_{rel}=0.10\%$		
		直流电流	63021 1		(0.1~ 10)mA	$U_{rel}=0.3\%$		
		频率	63021 1		(10~ 10000)Hz	$U_{rel}=0.05\%$		
20	声频信号发生器	交流电压	63020 4	声频信号发生器检定规程 JJG 607	(0.1~ 200) V	$U_{rel}=0.39\%$		
		频率	63020 4		(20~ 20000) Hz	$U_{rel}=0.12\%$		
21	网络分析仪	输出电平	65012 5	网络分析仪校准规范 JJF(电子)30501	(-30~ 20) dBm	$U=0.2dB$ B		
		频率	65012 5		10Hz~ 3GHz	$U_{rel}=2\times 10^{-7}$		
		动态准确度	65012 5		3GHz~ 26.5GHz	$U_{rel}=3\times 10^{-7}$		
		信号串扰	65012 5		S21: (0~ 110) dB	$U=0.2dB$ B		
		频谱纯度	65012 5		(-110~ -85) dB	$U=1.5dB$ B		
					(-60~ -20) dBc	$U=0.10dB$ dB		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		噪声电平	65012 5		(-100~-69) dBm	$U=3\text{dB}$		
		系统迹性噪声	65012 5		(0.006~0.1) dB	$U=0.002\text{dB}$		
22	射频阻抗/材料分析仪	频率	65030 2	射频阻抗/材料分析仪校准规范 JJF 1127	1MHz~3GHz	$U_{\text{rel}}=1.9 \times 10^{-6}$		扩项
		电平	65030 2		(-30~+10) dBm	$U=1.0\text{dB}$		
		直流偏置电压	65032 0		$\pm(0.1\sim 40)\text{V}$	$U_{\text{rel}}=0.10\%$		
		阻抗	65032 0		50 Ω , 75 Ω	$U_{\text{rel}}=3\%$		
23	脉冲信号发生器	电压	65020 4	脉冲信号发生器检定规程 JJG 490	10mV~200V	$U_{\text{rel}}=1.1\%$		
		脉冲宽度	65020 4		1ns~50ms	$U_{\text{rel}}=0.05\%$		
		上升时间	65020 4		1.1ns~10ms	$U_{\text{rel}}=10\%$		
		频率	65204		1Hz~500MHz	$U_{\text{rel}}=3 \times 10^{-8}$		
24	无线电综合测试仪	射频电平	65060 7	射频通信测试仪校准规范 JJF1065	(-127~+13) dBm	$U=1.2\text{dB}$		
		调幅度	65060 7		0.1%~5% (载频: 10MHz~1GHz, 调制频率: 50Hz~50kHz)	$U_{\text{rel}}=3.5\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
					5%~99% (载频: 10MHz~1GHz, 调制频率: 50Hz~50kHz))	$U_{rel}=1.3\%$		
					(5~99)% (载频: 150kHz~10MHz, 调制频率: 20Hz~10kHz)	$U_{rel}=3\%$		
		频偏	650607		(0.1~40)kHz, (载频: 150kHz~10MHz, 调制频率: 20Hz~10kHz)	$U_{rel}=2.5\%$		
					(0.1~400)kHz, (载频: 10MHz~1GHz, 调制频率: 50Hz~100kHz)	$U_{rel}=1.3\%$		
		功率测量	650607		(-30~30)dBm	$U_{rel}=10\%$		
		调幅测量	650607		0.1%~5% (载频: 10MHz~1GHz, 调制频率: 50Hz~50kHz))	$U_{rel}=3.5\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					5%~99% (载频: 10MHz~1GHz, 调制频率: 50Hz~50kHz))	$U_{rel}=1.3\%$		
					(5~99)% (载频: 150kHz~ 10 MHz, 调制频率: 20Hz~ 10kHz)	$U_{rel}=3\%$		
		频偏 测量	65060 7		(0.1~ 400) kHz, (载频: 10MHz~ 1GHz, 调制 频率: 50Hz~ 100kHz)	$U_{rel}=1.3\%$		
					(0.1~ 10) kHz (载 频: 150kHz~ 10MHz, 调 制频率: 50Hz~10kHz)	$U_{rel}=2.4\%$		
		音频 输出 频率	65060 7		20Hz~ 25kHz	$U_{rel}=0.025\%$		
		音频 输出 电压	65060 7		0.1mV~ 4V(rms)	$U_{rel}=2\%$		
		音频 输出 频率 响应	65060 7		20Hz~ 25kHz	$U_{rel}=3\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		音频失真	65060 7		(0.1~10)% (20Hz~25kHz)	$U_{rel}=3\%$		
		音频频率测量	65060 7		20Hz~25kHz	$U_{rel}=0.02\%$		
		电压测量	65060 7		0.01V~30V (rms)	$U_{rel}=3\%$		
		频率测量响应	65060 7		20Hz~25kHz	$U_{rel}=3\%$		
		参考频率	65060 7		10MHz	$U_{rel}=5 \times 10^{-8}$		
25	电视场强电平检测仪	频率	65060 2	电视信号场强仪 检定规程 JJG 1057	(48~862)MHz	$U_{rel}=3 \times 10^{-6}$		
		输入电平	65060 2		VHF: (20~120) dB μ UHF: (30~110) dB μ	$U=1.2$ B		
		带宽	65060 2		(250~350) kHz	$U=10$ k Hz		
26	TDMA-GSM 数字移动通信综合测试仪	射频输出频率	65060 9	TDMA—GSM 数字移动通信综合测试仪校准规 JJF 1131	500MHz~2GHz	$U_{rel}=1.4 \times 10^{-6}$		
		射频输出电平	65060 9		(20~0) dBm	$U=0.24$ dB		
					(0~-100) dBm	$U=0.35$ dB		
					(-100~-129) dBm	$U=0.56$ dB		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		音频输出频率	650609		20Hz~25kHz	$U_{rel}=1.2 \times 10^{-4}$		
		音频输出电平	650609		1mV~3.29V	$U_{rel}=2.3\%$		
		音频输出失真	650609		3.3V~33V	$U_{rel}=2.5\%$		
		射频测量频率	650609		0.01%~10%	$U_{rel}=1.2\%$		
		射频测量电平	650609		250kHz~3GHz	$U_{rel}=1.5 \times 10^{-4}$		
		音频频率测量	650609		3GHz~26.5GHz	$U_{rel}=2 \times 10^{-4}$		
		音频电平测量	650609		(16~-120) dBm	$U=0.58$ dB		
		音频失真测量	650609		20Hz~25kHz	$U_{rel}=1 \times 10^{-4}$		
					1mV~3.29V	$U_{rel}=0.29\%$		
					3.3V~33V	$U_{rel}=0.35\%$		
					(0.1~30)%	$U_{rel}=3.2\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					(30~100)%	$U_{rel}=3.5\%$		
		直流电压测量	650609		(0.1~30)V	$U_{rel}=0.2\%$		
		直流电流测量	650609		(0.1~30)A	$U_{rel}=0.2\%$		
27	蓝牙测试仪	频率(输出)	650611	蓝牙测试仪校准规范 JJF1278	2402MHz~2480MHz	$U_{rel}=5.9 \times 10^{-7}$		
		电平(输出)	650611		(-90~0) dBm	$U=0.44\text{dB}$		
		频率(测量)	650611		2402MHz~2480MHz	$U_{rel}=9.3 \times 10^{-7}$		
		电平(测量)	650611		(-90~10) dBm	$U=0.74\text{dB}$		
28	EMI 测量接收机	频率	650122	电磁骚扰测量接收机校准规范 JJF1144	9kHz~1GHz	$U_{rel}=4.9 \times 10^{-7}$		
		电平	650122		(0~120) dB μ V	$U=0.76\text{dB}$		
		带宽	650112		200Hz~1MHz	$U_{rel}=2\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
29	射频电压表	电压测量	65010 3	射频电压表检定规程 JJG308	1mV~ 1V, (9kHz ~1GHz)	$U_{rel}=2.$ 1%		
30	数字示波器	电压	65021 1	数字存储示波器 校准规范 JJF 1057	0.2mV~ 200V	$U_{rel}=0.$ 6%		
		时间	65021 1		1ns~5s	$U_{rel}=0.$ 25%		
		上升时间	65021 1		1.75ns	$U_{rel}=5.$ 0%		
		频带宽度	65021 1		50kHz~ 300MHz	$U_{rel}=2.$ 5%		
31	失真度仪检定装置	输出频率	65029 9	失真度仪校准器 检定规程 JJG 802	10Hz~200 kHz	$U_{rel}=$ 0.03%		
		输出电压	65029 9		(0.001~ 10) V	$U_{rel}=0.$ 20%		
		频率响应	65029 9		10Hz~150 kHz	$U_{rel}=0.$ 20%		
		输出失真	65029 9		0.03%~ 30%	$U_{rel}=13$ %		
32	人工电源网络	网络阻抗	65012 1	人工电源网络校准规范 JJF 1705	(4~60) Ω , (300kHz z~ 100MHz)	$U_{rel}=3$ %		
		电压分压系数	65012 1		(0~60) dB	$U=0.20$ dB		
33	高频Q表	频率	65031 4	高频Q表校准规范 JJF 1073	50 kHz~50 MHz	$U_{rel}=0.$ 05%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		Q 值	65031 4		151~ 276, (0.2 ~ 5.95)MHz	$U=7$		
34	微波频率计数器	频率	66010 6	微波频率计数器 检定规程 JJG 841	100kHz~ 26.5GHz	$U_{rel}=$ 3×10^{-7}		
		晶振 频率 准确度	66010 6		1MHz, 5MHz, 10MHz	$U_{rel}=$ 2×10^{-8}		
35	电压暂降、短时中断和电压变化发生器	输出电压	12020 7	电压暂降、短时中断和电压变化试验发生器校准规范 JJF 1673	(1~300)V	$U_{rel}=2.$ 0%		
		电压上升时间/下降时间	12020 7		0.1 μ s~ 10 μ s	$U_{rel}=2.$ 0%		
		时间控制	12020 7		1ms~20s	$U_{rel}=0.$ 5%		
36	匝间冲击电压测试仪	脉冲峰值电压	70105 2	绕组匝间绝缘冲击电压试验仪校准规范 JJF 1691	(0.1~ 6)kV	$U_{rel}=1.$ 5%~ 2.5%		
		电压上升时间	70105 2		(0.5、 1.2) μ s	$U_{rel}=2.$ 0%		
37	示波器电流探头	直流电流测量	70104 4	示波器电流探头校准规范 JJF(电子)-30305	(0.1~ 20)A	$U_{rel}=0.$ 20%		
		交流电流测量	70104 4		(0.1~ 20)A, (0.1~ 10)kHz	$U_{rel}=0.$ 50%		
38	信纳表	输入电平范围	63020 7	信纳表校准规范 JJF 1165	50mV~20V	$U_{rel}=$ 0.2%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		信纳指示误差	63020 7		0~20dB	$U=0.33$ dB		
		调制信号频率	63020 7		1kHz	$U_{rel}=$ 0.8%		
		调制信号电平	63020 7		1V~20V	$U_{rel}=$ 0.2%		
		调制信号失真	63020 7		0.01%~ 0.05%	$U_{rel}=1.$ 4%		
39	同轴电阻式衰减器	衰减量	65011 7	同轴电阻式衰减器检定规程 JJG 387	(0~100) dB, (10kHz~18GHz)	$U=1.0d$ B		
40	CDMA 数字移动通信综合测试仪	射频输出频率	65060 9	CDMA 数字移动通信综合测试仪 JJF 1177	100MHz~2GHz	$U_{rel}=1.$ 5×10^{-6}		扩项
		射频输出电平	65060 9		(-120~-5) dBm	$U=0.56$ dB		
		误差矢量幅度	65060 9		0.2%~10%	$U=4%$		
		音频输出频率	65060 9		100Hz~5kHz	$U_{rel}=0.$ 1%		
		音频输出电平	65060 9		1V~5V	$U_{rel}=0.$ 5%		
		射频频率测量	65060 9		810MHz~2GHz	$U_{rel}=2 \times$ 10^{-6}		
		功率电平测量	65060 9		(-50~30) dBm	$U=0.55$ dB		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
		音频频率测量	650609		20Hz~20kHz	$U_{rel}=1 \times 10^{-4}$		
		音频电平测量	650609		20mV~30V, (20Hz~20kHz)	$U_{rel}=0.45\%$		
41	电快速瞬变脉冲群发生器	电压	701029	电快速瞬变脉冲群模拟器校准规范 JJF 1672	(0.1~4)kV, (50 Ω , 1000 Ω)	$U_{rel}=3\%$		
		脉冲群持续时间	701029		15ms	$U_{rel}=6.7\%$		
		脉冲群周期	701029		0.75ms	$U_{rel}=6.7\%$		
		脉冲群周期	701029		300ms	$U_{rel}=6.7\%$		
42	示波器电压探头	直流电压衰减比	701044	示波器电压探头 JJF 1437	1:1~1000:1	$U_{rel}=1.2\%$		扩项
		频率响应	701044		(0~3)dB, (1~100)MHz	$U=1.2dB$		
43	任意波发生器	频率	650201	任意波发生器校准规范 JJF 1152	1Hz~1GHz	$U_{rel}=4 \times 10^{-7}$		
		幅度	650201		1mV~20V	$U_{rel}=0.2\%$		
		失真	650201		(0.01~30)%(20Hz~100kHz)	$U_{rel}=15\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		频偏	65020 1		(0.1~400) kHz	$U_{rel}=1.3\%$		
		调幅	65020 1		1%~99%	$U_{rel}=1.3\%$		
44	*电容器介质损耗测量仪	损耗	65030 9	电容器介质损耗测量仪校准规范 JJF 1095	0.005%~10%	$U=0.004\% \sim 0.05\%$		
		电容	65030 9		100pF	$U_{rel}=0.5\%$		
45	低频电子电压表	交流电压	65010 5	低频电子电压表检定规程 JJG 782	1mV~32.999mV, (10~45)Hz	$U_{rel}=0.6\%$		
					1mV~32.999mV, 45Hz~10kHz	$U_{rel}=0.5\%$		
					1mV~32.999mV, (10~20) kHz	$U_{rel}=0.5\%$		
					1mV~32.999mV, (20~50) kHz	$U_{rel}=0.5\%$		
					1mV~32.999mV, (50~100) kHz	$U_{rel}=0.6\%$		
					1mV~2.999mV, (100~500) kHz	$U_{rel}=0.8\%$		
					33mV~29.999mV, (10~45) Hz	$U_{rel}=0.6\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					33mV~ 329.999mV , 45Hz~ 10kHz	$U_{rel}=0.$ 5%		
					33mV~ 329.999mV , (10~ 20) kHz	$U_{rel}=0.$ 5%		
					33mV~ 329.999mV , (20~ 50) kHz	$U_{rel}=0.$ 5%		
					33mV~ 329.999mV , (50~ 100) kHz	$U_{rel}=0.$ 6%		
					33mV~ 329.999mV , (100~ 500) kHz	$U_{rel}=0.$ 8%		
					330mV~ 3.29999V, (10~ 45) Hz	$U_{rel}=0.$ 6%		
					330mV~ 3.29999V, 45Hz~ 10kHz	$U_{rel}=0.$ 4%		
					330mV~ 3.29999V, (10~ 20) kHz	$U_{rel}=0.$ 4%		
					330mV~ 3.29999V, (20~ 50) kHz	$U_{rel}=0.$ 5%		
					330mV~ 3.29999V, (50~ 100) kHz	$U_{rel}=0.$ 5%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					330mV~ 3.29999V, (100~ 500)kHz	$U_{rel}=0.7\%$		
					3.3V~ 32.9999V, (10~ 45)Hz	$U_{rel}=0.6\%$		
					3.3V~ 32.9999V, 45Hz~ 10kHz	$U_{rel}=0.4\%$		
					3.3V~ 32.9999V, (10~ 20)kHz	$U_{rel}=0.5\%$		
					3.3V~ 32.9999V, (20~ 50)kHz	$U_{rel}=0.5\%$		
					3.3V~ 32.9999V, (50~ 100)kHz	$U_{rel}=0.7\%$		
					33V~ 300V, 45Hz~ 1kHz	$U_{rel}=0.5\%$		
					33V~ 300V, (1~ 10)kHz	$U_{rel}=0.4\%$		
					33V~ 300V, (10~ 20)kHz	$U_{rel}=0.4\%$		
46	*LCR 测量仪	电感	65031 2	GR1658 型 RLC 数字电桥 (试行) 检定规程 JJG	0.1mH, 1kHz z	$U_{rel}=0.25\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
				(电子)05020	(1mH~1H), 1kHz	$U_{rel}=0.15\%$		
					(10 μ H~100 μ H), 1kHz	$U_{rel}=6\%$		
		电容	650312		(0.1nF~100 μ F), 1kHz	$U_{rel}=0.3\% \sim 6\%$		
		电阻	650312		(10mΩ~1Ω), 1kHz	$U_{rel}=0.6\% \sim 6\%$		
					(1Ω~10Ω), 1kHz	$U_{rel}=0.11\%$		
					(10Ω~10kΩ), 1kHz	$U_{rel}=0.064\% \sim 0.15\%$		
					(10kΩ~100kΩ), 1kHz	$U_{rel}=0.15\%$		
频率	650312	100Hz~1MHz	$U_{rel}=0.05\%$					
47	*电感测量仪	电感	650310	GR1658 型 RLC 数字电桥 (试行) 检定规程 JJG (电子)05020	0.1mH, 1kHz	$U_{rel}=0.25\%$		
					1mH~1H, 1kHz	$U_{rel}=0.15\%$		
					10 μ H~100 μ H, 1kHz	$U_{rel}=6\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注		
48	*电容测量仪	电容	65031 1	GR1658 型 RLC 数字电桥 (试行) 检定规程 JJG (电子)05020	(0.1nF~100 μF), 1kHz	$U_{rel}=0.3\% \sim 6\%$				
49	标准电容器 (箱)	电容	65030 5	标准电容器检定规程 JJG 183	10pF~1000nF, 1kHz	$U_{rel}=0.09\%$				
50	标准电感器 (箱)	电感	65030 8	标准电感器检定规程 JJG 726	100 μH~1H, 1kHz	$U_{rel}=0.07\%$				
51	元件自动分析仪	电阻	65050 5	交流电桥检定规程 JJG 441, YG 系列匝数仪检定规程 SJ 20241	10mΩ~1Ω, 1kHz	$U_{rel}=0.6\% \sim 6\%$				
					1Ω~10Ω, 1kHz	$U_{rel}=0.11\%$				
					10Ω~10kΩ, 1kHz	0.064%~0.15%				
					10kΩ~100kΩ, 1kHz	$U_{rel}=0.15\%$				
		电容	65050 5		0.1nF~100 μF, 1kHz	$U_{rel}=0.3\% \sim 6\%$				
					电感	65050 5			0.1mH, 1kHz	$U_{rel}=0.25\%$
									1mH~1H, 1kHz	$U_{rel}=0.15\%$
		圈比	65031 2		10 μH~100 μH, 1kHz	$U_{rel}=6\%$				
					(1~1000)T	$U_{rel}=0.10\%$				

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		频率	65031 2		100Hz~ 200kHz	$U_{rel}=0.010\%$		
52	*晶体管直流和低频参数测试仪	直流电压	65050 1	晶体管直流和低频参数测试仪检定规程 JJG 725	(0.01~ 0.1)V	$U_{rel}=0.1\%$		
					(0.1~1)V	$U_{rel}=0.15\%$		
					(1~10)V	$U_{rel}=0.12\%$		
					(10~ 100)V	$U_{rel}=0.15\%$		
					(100~ 1000)V	$U_{rel}=0.20\%$		
		直流电流	65050 1		(0.001~ 0.01)A	$U_{rel}=0.35\%$		
					(0.01~ 0.1)A	$U_{rel}=0.15\%$		
					(0.1~1)A	$U_{rel}=0.28\%$		
					(0.01~ 1000)V, (45Hz~ 1kHz)	$U_{rel}=0.6\%$		
交流电压	65050 1							
频率	65050 1			1kHz	$U_{rel}=0.10\%$			
53	*电浪涌发生器	电压	70103 0	电浪涌发生器校准规范 JJF(电子) 30803	(0.5~ 20)kV	$U_{rel}=3.0\%$		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		短路电流	701030		100A~3000A	$U_{rel}=5.0\%$		
		时间	701030		1 μ s~1ms	$U_{rel}=3\%$		
54	*静电放电发生器	电压	701028	静电放电模拟器校准规范 JJF 1397	(0.01~20)kV	$U_{rel}=3.0\%$		
55	交流电阻箱	交流电阻	650316	交流电阻箱校准规范 JJF1636	(0.001~1) Ω , (100Hz, 1kHz, 10kHz)	$U_{rel}=5.8\% \sim 0.3\%$		
					(1~10) Ω , (100Hz, 1kHz, 10kHz)	$U_{rel}=0.1\% \sim 0.3\%$		
					(10~100) Ω , (100Hz, 1kHz, 10kHz)	$U_{rel}=0.1\% \sim 0.06\%$		
					(0.1~1)k Ω , (100Hz, 1kHz, 10kHz)	$U_{rel}=0.06\%$		
					(1~10)k Ω , (100Hz, 1kHz, 10kHz)	$U_{rel}=0.06\%$		
					(10~100)k Ω , (100Hz, 1kHz, 10kHz)	$U_{rel}=0.06\%$		
					(0.1~1)M Ω , (100Hz, 1kHz, 10kHz)	$U_{rel}=0.06\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
56	*断路器延时特性校验台	时间测量	04160 2	断路器延时特性校验台校准规范 JJF (浙) 1078	0.1s~ 9999s	$U=0.1s$		扩项
		电流	04160 2		(10~ 1000) A	$U_{rel}=0.3\%$		
57	*变压器绕组变形测试仪	频率	65019 9	变压器绕组变形测试仪校准规范 JJF (浙) 1138	1kHz~ 1MHz	$U_{rel}=6 \times 10^{-7}$		扩项
		幅值衰减 值	65019 9		(-80~ 20) dB	$U=0.32$ dB		
58	*无源互调测试仪校准规范	输出频率	65019 9	无源互调测试仪校准规范 JJF1463	869MHz~ 3594MHz	$U_{rel}=5 \times 10^{-7}$		扩项
		输出功率	65019 9		(20~ 48) dBm	$U=0.8$ dB		
		无源互调 测量	65019 9		(-70~ -120) dBm	$U=0.6$ dB		
59	*时间间隔发生器	振荡器频率	66020 3	时间间隔发生器检定规程 JJG 723	1MHz, 5MHz, 10MHz	$U_{rel}=5 \times 10^{-8}$		扩项
		时间间隔 输出	66020 3		10ns~ 1000s	$U=1.2 \times 10^{-7} T + 1$ ns		
		脉冲 输出	66020 3		0.5V~10V	$U_{rel}=1.5\%$		
六、时间和频率								
1	高压开关动作特性测试仪	时间	70100 1	高压开关动作特性测试仪检定规程 JJG 1120	1ms~ 1000ms	$U=0.16$ ms		
2	电子校表仪	日差	66020 7	校表仪检定规程 JJG 488	(0.01~ 9.99) s/d	$U=0.01$ s/d		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
3	电子秒表	时间	660209	秒表检定规程 JJG 237	(0~3600) s	$U=0.02$ s		
		日差	660209		(0.01~9.99) s/d	$U=0.02$ s/d		
4	机械秒表	时间	660209	秒表检定规程 JJG 237	(0~3600) s	$U=0.15$ s		
5	频率表	频率	660105	频率表检定规程 JJG 603	10Hz~20kHz	$U_{rel}=0.06\%$		
6	扬声器 Fo 测试仪 (发生器部分)	频率	630204	声频信号发生器 检定规程 JJG 607	(0.02~3) kHz	$U_{rel}=0.2\%$		
7	电子式时间继电器	延时整定时间	660213	电子式时间继电器 校准规范 JJF 1282	1s~9999s	$U_{rel}=0.4\%$		
七、化学								
1	*旋光仪	旋光度	680121	旋光仪及旋光糖 量计检定规程 JJG 536	(-34~+34) °	$U=0.005^{\circ}$		
2	*直读光谱仪	浓度	680118	发射光谱仪检定 规程 JJG 768	C、Si、Ni、 Mn、Cr、V: (0.001~2.5) %	$U_{rel}=10\%$		
3	*傅立叶红外光谱仪	波数	680107	傅立叶红外光谱 仪校准规范 JJF 1319	(4000~400) cm^{-1}	$U=0.2$ cm^{-1}		
4	*原子荧光光度计	检出限	680110	原子荧光光度计 检定规程 JJG 939	As、Sb: \leq 0.4ng	$U=0.038$ ng		
5	手持糖量 (含量) 计	糖量	680122	手持糖量 (含量) 计及手持折射仪 检定规程 JJG 820	(0.1~50) %	$U_{rel}=0.3\%$		
6	*可燃气体检测报警器	气体浓度	680815	可燃气体检测报 警器检定规程 JJG 693	(0.1~100) %LEL	$U_{rel}=1.2\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
7	*四极杆电感耦合等离子体质谱仪	检出限	68030 3	四极杆电感耦合等离子体质谱仪校准规范 JJF 1159	Be: ≤ 30ng/L	$U=1.0n$ g/L		
					In: ≤ 10ng/L	$U=0.8n$ g/L		
					Bi: ≤ 10ng/L	$U=0.8n$ g/L		
8	*电解质分析仪	浓度	70050 4	电解质分析仪检定规程 JJG 1051	K: (1.50~ 7.50) mmol/L	$U_{rel}=2.$ 4%		
					Na: (100.0~ 180.0) mmol/L	$U_{rel}=2.$ 4%		
					Cl: (80.0~ 160.0) mmol/L	$U_{rel}=2.$ 4%		
9	*色散型红外分光光度计	波数	68010 7	色散型红外分光光度计检定规程 JJG 681	(4000~ 400) cm^{-1}	$U=0.2$ cm^{-1}		
10	溶解氧测定仪	浓度	68040 3	溶解氧测定仪检定规程 JJG 291	(0~20) mg/L	$U=0.1$ mg/L		
		温度	68040 3		(0~50) °C	$U=0.3$ °C		
11	*旋转黏度计	黏度	68060 4	旋转黏度计检定规程 JJG 1002	(12~10 ⁵) mPa·s	$U_{rel}=1.$ 5%~ 3%		
12	*X射线荧光光谱仪	浓度	68011 2	波长色散 X 射线荧光光谱仪检定规程 JJG 810	Cd: (8.7~ 107) mg/kg	$U_{rel}=5.$ 4%		
					Cr: (97.3~ 1122) mg/kg	$U_{rel}=5.$ 4%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
					Hg: (91.5~1096) mg/kg	$U_{rel}=5.4\%$		
					Pb: (93.1~1122) mg/kg	$U_{rel}=5.4\%$		
13	*紫外、可见分光光度计	波长	68010 1	紫外、可见、近红外分光光度计 检定规程 JJG 178	(220~800) nm	$U=0.74$ nm		
		透射比	68010 1		(0~100)%	$U=0.5$ %		
14	*原子吸收分光光度计	浓度	68010 8	原子吸收分光光度计 检定规程 JJG694	火焰铜: (0.5~5.0) μ g/mL	$U_{rel}=3.5\%$		
					石墨炉镉: (0.5~5.0) ng/mL	$U_{rel}=4.2\%$		
15	*发射光谱仪(ICP)	浓度	68011 6	发射光谱仪 检定规程 JJG768	Cr、Ni、Zn: (0.01~5.00) μ g/mL; Cu、Mn、Ba: (0.01~2.50) μ g/mL	$U_{rel}=4.0\%$		
16	*定碳定硫分析仪	浓度	02030 8	定碳定硫分析仪 检定规程 JJG 395	C: 0.120%~0.448%	$U_{rel}=3.5\%$		
					S: 0.013%~0.052%	$U_{rel}=4.4\%$		
17	木材含水率测量仪	浓度	68050 6	木材含水率测量仪 检定规程 JJG986	(6%~28)%	$U=1.5$ %		
18	*化学需氧量	温度	68040 9	化学需氧量(COD)测定 仪检定规程	(100~200) $^{\circ}$ C	$U=0.3$ $^{\circ}$ C		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
	测定仪	浓度	680409	定规程 JJG 975	(50~1000) mg/L	$U_{rel}=2.3\%$		
19	恩氏粘度计	时间	680608	恩氏粘度计检定规程 JJG 742	(49~52) s	$U_{rel}=3\%$		
20	流出杯式粘度计	粘度	680603	流出杯式粘度计检定规程 JJG 743	(10~685) mm ² /s	$U_{rel}=3\%$		
21	*火焰光度计	浓度	680120	火焰光度计检定规程 JJG 630	Na: (0.004~1.00) mmol/L; K: (0.004~0.200) mmol/L	$U_{rel}=4.8\%$		
22	*烘干法水分测定仪	质量	680502	烘干法水分测定仪检定规程 JJG 658	1mg~500g	$U=(0.1~0.2)mg$		
		浓度	680502		0~100%	$U=0.3\%$		
23	*雾度计	雾度	670532	雾度计校准规范 JJF1303	(1.05~29.07)	$U=0.4$		
		透射比	680532		73.4%~87.9%	$U=0.8\%$		
24	*凝胶色谱仪	分子量	680205	凝胶色谱仪检定规程 JJG342	聚苯乙烯: (1~17.24) × 10 ⁴ g/mol	$U_{rel}=3.0\%$		
					葡聚糖: (0.1~7.38) × 10 ⁴ g/mol)	$U_{rel}=9.1\%$		
25	*微粒检测仪	微粒浓度	680842	微粒检测仪校准规范 JJF1290	(1192~4065) 粒/mL	$U_{rel}=4.1\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		体积	68084 2		(0.1~100) mL	$U_{rel}=0.2\%$		
26	*农药残留速测仪	透射比	22204	农药残留速测仪 检定规程 JJG (粤) 006	12%~30.9%	$U=0.7\%$		
27	臭氧气体分析仪	浓度	68080 6	臭氧气体分析仪 检定规程 JJG 1077	(0.1~1.0) μ mol/mol	$U_{rel}=3.5\%$		
28	*浊度计	浊度	68040 2	浊度计检定规程 JJG 880	(0.1~400) NTU	$U_{rel}=3.3\%$		
29	*总有机碳分析仪	无机碳含量	68041 1	总有机碳分析仪 检定规程 JJG 821	TC: (0.1~1000) mg/L	$U_{rel}=1.3\%$		
		有机碳含量	68041 1		TOC: (0.1~1000) mg/L	$U_{rel}=1.1\%$		
30	*渗透压摩尔浓度测定仪	渗透压摩尔浓度	68119 9	渗透压摩尔浓度 测定仪检定规程 JJG1089	(100~700) mOsmol/kg	$U=(2.2\sim3.5)$ mOsmol/kg		
31	滤纸式烟度计	烟度	70020 1	滤纸式烟度计 检定规程 JJG 847	(0~10) BSU	$U=0.22$ BSU		
32	*能量色散 X 射线荧光光谱仪	浓度	68019 9	能量色散 X 射线 荧光光谱仪校准 规范 JJF (闽) 1047	(8.5~1122) mg/kg	$U_{rel}=9\%$		
33	*氮、硫元素分析仪	浓度	68120 3	元素分析仪校准 规范 JJF1321	N: (1~1000) mg/L	$U_{rel}=1.7\%$		
					S: (0.1~10) mg/L	$U_{rel}=2.1\%$		
		取样质量	68120 3		(0~200) g	$U=1\text{mg}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
34	*碳、氢、氮元素分析仪、测氢仪	浓度	681207	元素分析仪校准规范 JJF1321	C: (0.02~80)%	$U_{rel}=1.8\%$		
					H: (0.02~5)%	$U_{rel}=5.2\%$		
					N: (0.01~2)%	$U_{rel}=2.8\%$		
		(0~200)g	$U=1\text{mg}$					
		取样质量	681207					
35	*氧、氮、氢测定仪	氧、氮、氢浓度	681299	元素分析仪校准规范 JJF1321	O: (0.0025~0.0048)%	$U_{rel}=6.6\%$		
					N: (0.026~0.058)%	$U_{rel}=4.0\%$		
					H: (0.0001~0.0020)%	$U_{rel}=16\%$		
		(0~200)g	$U=1\text{mg}$					
		取样质量	681299					
36	*一氧化碳检测报警器	气体浓度	680812	一氧化碳检测报警器 JJG 915	(0.1~2000) $\mu\text{mol/mol}$	$U_{rel}=1.5\%$		扩项
		时间	680812		(0.1~60)s	$U=0.5\text{ s}$		
37	*薄层色谱仪	浓度	680208	薄层色谱扫描仪校准规范 JJF 1712	(0.001~0.5)mg/mL	$U_{rel}=3\%$		扩项
38	*微量氧分析仪	气体浓度	680801	微量氧分析仪检定规程 JJG 945	(0.1~10) $\mu\text{mol/mol}$	$U_{rel}=3\%$		扩项
					(>10~1000) $\mu\text{mol/mol}$	$U_{rel}=2\%$		
		时间	680801		(0.1~60)s	$U=0.5\text{ s}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
39	*紫外荧光测硫仪	浓度	68129 9	紫外荧光测硫仪 校准规范 JJF 1685	(0.1~ 10) mg/L	$U=(0.2$ $\sim 0.5)$ mg/L		扩项
					(10~ 100) mg/L	$U=(0.5$ $\sim 1.5)$ mg/L		
40	*烟尘 采样器	流量	68083 2	烟尘采样器检定 规程 JJG 680	(0.1~ 60) L/min	$U_{rel}=1.$ 7%		扩项
		温度	68083 2		(-40~ 200) °C	$U=1.0$ °C		
		压力	68083 2		(-60~ 60) kpa	$U_{rel}=0.$ 5%		
		时间	68083 2		(0.1~ 3600) s	$U=0.5$ s		
41	*煤中 全硫测 定仪	浓度	68120 2	煤中全硫测定仪 检定规程 JJG 1006	(0.2~6)%	$U=$ $(0.04\sim$ $0.2)\%$		扩项
		温度	68120 2		(0~ 1300) °C	$U=3.0$ °C		
42	*运动 粘度测 试仪	黏度	68060 6	运动黏度测定器 校准规范 JJF1274	(10~ 80000) mm ² /s	$U_{rel}=2.$ 0%		扩项
		温度	68060 6		(0~100) °C	$U=0.3$ °C		
43	*总磷 总氮水 质在线 分析仪	浓度	68049 9	总磷总氮水质在 线分析仪检定规 程 JJG 1094	P: (0.1~ 1000) mg/L	$U_{rel}=2.$ 0%		扩项
					N: (0.1~ 500) mg/L	$U_{rel}=5.$ 0%		
44	*氨氮 自动监 测仪	浓度	68041 3	氨氮自动监测仪 检定规程 JJG 631	(0.1~ 100) μ g/mL	$U_{rel}=4$ %		扩项
45	*硅酸 根分析 仪	浓度	68041 7	硅酸根分析仪校 准规范 JJF1539	(0.01~ 1000) mg/L	$U_{rel}=2$ %		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
46	*纺织品甲醛含量测定仪	透射比	052999	纺织品甲醛含量测定仪校准规范 JJF(纺织)067	(0~100)%	$U=0.5\%$		扩项
47	*二氧化硫气体检测仪	气体浓度	680819	二氧化硫气体检测仪检定规程 JJG 551	(0.1~2000) $\mu\text{mol/mol}$	$U_{\text{rel}}=3\%$		扩项
		时间	680819		(0.1~60) s	$U=0.5\text{ s}$		
48	*氯化氢检测报警仪	气体浓度	680824	氯化氢检测报警仪校准规范 JJF(浙)1118	(0.1~1000) $\mu\text{mol/mol}$	$U_{\text{rel}}=6\%$		扩项
		时间	680824		(0.1~160) s	$U=0.5\text{ s}$		
49	*氯气检测报警仪	气体浓度	680899	氯气检测报警仪校准规范 JJF1433	(0.1~1000) $\mu\text{mol/mol}$	$U_{\text{rel}}=3\%$		扩项
		时间	680899		(0.1~60) s	$U=0.5\text{ s}$		
50	*水中油分浓度分析仪	浓度	680401	水中油分浓度分析仪检定规程 JJG 950	(0.1~1000) mg/L	$U_{\text{rel}}=4\%$		扩项
51	*荧光分光光度计	浓度	680109	荧光分光光度计检定规程 JJG 537	A类: $\leq 5 \times 10^{-10}\text{ g/mL}$	$U_{\text{rel}}=3\%$		扩项
					B类: $\leq 1 \times 10^{-8}\text{ g/mL}$	$U_{\text{rel}}=3\%$		
52	*六氟化硫检测报警仪	气体浓度	680822	六氟化硫检测报警仪校准规范 JJF 1263	(0.1~1000) $\mu\text{mol/mol}$	$U_{\text{rel}}=2\%$		扩项
		时间	680822		(0.1~60) s	$U=0.5\text{ s}$		
53	*工业分析仪	质量	020601	工业分析仪检定规程 JJG 1140	(0~100) g	$U=0.3\text{ mg}$		扩项
		灰分	020601		(8.25~44) %	$U=0.3\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		挥发分	020601		(8.3~31.68)%	$U=0.4\%$		
54	*粉尘采样器	流量	680831	粉尘采样器检定规程 JJG 520	(0.1~80) L/min	$U_{rel}=2\%$		扩项
		时间	680831		(0.1~3600) s	$U=0.5\text{ s}$		
55	*余氯测定仪	浓度	680420	余氯测定仪校准规范 JJF 1609	(0.1~100) mg/L	$U_{rel}=2.5\%$		扩项
56	*磷酸根分析仪	浓度	680418	磷酸根分析仪校准规范 JJF 1567	(0.1~1000) mg/L	$U_{rel}=3\%$		扩项
57	*硫化氢气体检测仪	气体浓度	680821	硫化氢气体检测仪检定规程 JJG 695	(0.1~500) $\mu\text{mol/mol}$	$U_{rel}=3\%$		扩项
		时间	680821		(0.1~90) s	$U=0.5\text{ s}$		
58	*氧气透过率试验仪	透过率	680199	氧气透过率试验仪校准规范 JJF(豫) 248	(10~65) $\text{cm}^3/\text{m}^2 \cdot 24\text{h}$	$U_{rel}=5.8\%$		扩项
59	*在线pH计	pH值	680702	在线PH计校准规范 JJF 1547	电计(pH): (0~14)	$U=0.001$		扩项
		电压	680702		仪器(pH): (0~14)	$U=0.02$		
60	*液相色谱-原子荧光联用仪	浓度	680399	液相色谱-原子荧光联用仪检定规程 JJG 1151	五价砷: < 1.0ng	$U_{rel}=6\%$		扩项
					一甲基砷: < 0.7ng	$U_{rel}=6\%$		
					二甲基砷: < 0.7ng	$U_{rel}=6\%$		
		流量	680399	(0.1~10) L/min	$U=1.0\%FS$			

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
61	*液相色谱-质谱联用仪	信噪比	68030 5	液相色谱-质谱联用仪校准规范 JJF 1317	10: 1~ 10000: 1	$U_{rel}=11\%$		扩项
		质量数	68030 5		(0.1~ 2242.64) u	$U=0.1u$		
62	尘埃粒子计数器	粒子浓度	68083 7	尘埃粒子计数器 校准规范 JJF 1190	(10~ 100000) 个 /28.3	$U_{rel}=14\%$		扩项
		时间	68083 7		(0.1~ 3600) s	$U=0.5s$		
		流量	68083 7		(0.1~ 100) L/min	$U_{rel}=2\%$		
63	*汽车排放气体测试仪	气体浓度	70020 3	汽车排放气体测试仪 检定规程 JJG 688	HC: (1~ 950) μ mol/mol	$U_{rel}=1.5\%$		扩项
					CO: (0.522~ 7.89) \times 10 ⁻² mol/m ol	$U_{rel}=1.7\%$		
					CO2: (3.62~ 12.3) \times 10 ⁻² mol/m ol	$U_{rel}=1.6\%$		
					O2: (0.478~ 19.9) \times 10 ⁻² mol/m ol	$U_{rel}=2.2\%$		
					NO: (1~ 900) μ mol/mol	$U_{rel}=1.4\%$		
		时间	70020 3		(0.1~ 60) s	$U=0.5s$		
64	*pH 检定仪	电压	68070 5	pH 计检定规程 JJG919	(-2000~ 2000) mV	$U_{rel}=0.01\%$		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		pH 值	68070 5		pH: (0~14)	$U=0.0002$		
		电阻	68070 5		(0.1~3)G Ω	$U_{rel}=3\%$		
65	*离子色谱仪	最小检测浓度	68028 4	离子色谱仪检定规程 JJG 823	$Cl^- \leq 0.02 \mu g/mL$	$U_{rel}=6\%$		扩项
					$NO_3^- \leq 0.02 \mu g/mL$	$U_{rel}=1.5\%$		
					$I^- \leq 0.02 \mu g/mL$	$U_{rel}=3\%$		
		温度	68024 0		(0~100) $^{\circ}C$	$U=0.5^{\circ}C$		
		流量	68024 0		(0.1~10) L/min	$U_{rel}=2\%$		
66	*实验室 pH 计	酸度	68070 1	实验室 pH(酸度)计 JJG 119	仪器 (pH): (0~14)	$U=0.02$		扩项
		电压	68070 1		电计 (pH): (0~14)	$U=0.002$		
		电阻	68070 1		(-1999~1999) mV	$U=0.1 mV$		
					(0.1~3) G Ω	$U_{rel}=3\%$		
67	*自动电位滴定仪	电位	68070 4	自动电位滴定仪检定规程 JJG814	(-2000~2000) mV	$U=0.13 mV$		扩项
		滴定管容量	68070 4		(0~100)mL	$U=0.028 mL$		
68	*电导率仪	电导率	68070 9	电导率仪 JJG376	电子单元: (0.5~10000) $\mu S/cm$	$U=0.08 \%FS$		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		电导率	680709		仪器： (0.5~10000) μ S/cm	$U=0.18$ %FS		
		温度	680709		(0~100) $^{\circ}$ C	$U=0.5$ $^{\circ}$ C		
69	*气相色谱仪	检测限	680201	气相色谱仪检定规程 JJG700	FID: \leq 0.5ng/s	$U_{rel}=4.6\%$		扩项
					FPD: \leq 0.5ng/s (S); \leq 0.1ng/s (P)	$U_{rel}=4.6\%$		
					NPD: \leq 5pg/s (N); \leq 10pg/s (P)	$U_{rel}=4.6\%$		
					ECD: \leq 5pg/mL	$U_{rel}=4.8\%$		
		灵敏度	680201		TCD: \geq 800mV \cdot mL/mg	$U_{rel}=3.8\%$		
		温度	680201		(0~300) $^{\circ}$ C	$U=0.5$ $^{\circ}$ C		
		载气流速	680201		(0.1~100) mL/min	$U_{rel}=2.0\%$		
70	*液相色谱仪	检测紫外可见/二极管阵列检测器检测限	680203	液相色谱仪检定规程 JJG705	\leq 50pg/mL	$U_{rel}=6.0\%$		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		荧光检测器检测限	68020 3		$\leq 5\text{pg/mL}$	$U_{\text{rel}}=5.2\%$		
		示差折光率检测器检测限	68020 3		$\leq 5\ \mu\text{g/mL}$	$U_{\text{rel}}=5.1\%$		
		流量	68020 3		(0.1~10) L/min	$U_{\text{rel}}=2.0\%$		
		温度	68020 3		(0~100) °C	$U=0.5\text{°C}$		
71	*台式气相色谱-质谱联用仪	信噪比	68030 4	气相色谱-质谱联用仪校准规范 JJF 1164	EI 源: $\geq 10:1$	$U_{\text{rel}}=8.8\%$		扩项
					正 CI 源: $\geq 10:1$	$U_{\text{rel}}=8.8\%$		
					负 CI 源: $\geq 100:1$	$U_{\text{rel}}=8.8\%$		
		质量数	68030 4		(0.1~700) u	$U=0.10\text{u}$		
温度	68030 4	(0~300) °C	$U=0.5\text{°C}$					
72	*卡尔·费休库仑法微量水分测定仪	浓度	68050 7	卡尔·费休库仑法微量水分测定仪检定规程 JJG 1044	$10\ \mu\text{g}\sim 10\text{mg}$	$U_{\text{rel}}=3\%$		扩项
73	*总悬浮颗粒物采样器	流量	68083 5	总悬浮颗粒物采样器检定规程 JJG 943	(0.1~1400) L/min	$U_{\text{rel}}=1.7\%$		扩项
		时间	68083 5		(0.1~3600) s	$U=0.5\text{s}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		压力	68083 5		(1~120) kpa	$U=0.5$ %		
74	*电化学氧测定仪	氧含量	68080 2	电化学氧测定仪 检定规程 JJG365	(50.1~ 300) mmol/mol	$U_{rel}=1.$ 4%		扩项
		时间	68082 0		(0.1~ 60) s	$U=0.5s$		
75	*挥发性有机化合物光离子化检测仪	浓度	68080 7	挥发性有机化合物光离子化检测仪校准规范 JJF 1172	(200~ 794) μ mol/mol	$U_{rel}=3$ %		扩项
		时间	68080 7		(0.1~ 60) s	$U=0.5s$		
76	*一氧化碳、二氧化碳红外线气体分析器	浓度	68081 1	一氧化碳、二氧化碳红外线气体分析器检定规程 JJG635	CO: (0.1~ 10000) μ mol/mol; CO2: (0.1~ 100000) μ mol/mol	$U_{rel}=1.$ 3%		扩项
		时间	68081 1		(0.1~ 60) s	$U=0.5s$		
77	*烟气分析仪	浓度	68083 0	烟气分析仪检定 规程 JJG968	CO: (0.1~ 10000) μ mol/mol	$U_{rel}=1.$ 3%		扩项
					NO: (301~ 3000) μ mol/mol	$U_{rel}=1.$ 3%		
					SO ₂ : (200~ 803) μ mol/mol	$U_{rel}=1.$ 9%		
					O ₂ : (50.1~ 300) mmol/mol	$U_{rel}=1.$ 4%		
		时间	68083 0	(0.1~ 60) s	$U=0.5s$			

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
78	*甲醛气体检测仪	浓度	680805	甲醛气体检测仪 检定规程 JJG1022	(0.1~10) μ mol/mol	$U_{rel}=6.0\%$		扩项
		时间	680805		(0.1~180) s	$U=0.5s$		
79	*氨气检测仪	浓度	680820	氨气检测仪检定 规程 JJG1105	(0.1~1010) μ mol/mol	$U_{rel}=3\%$		扩项
		时间	680820		(0.1~180) s	$U=0.5s$		
80	*氯乙烯气体检测报警仪	浓度	680899	氯乙烯气体检测 报警仪检定规程 JJG 1125	(0.1~100) μ mol/mol	$U_{rel}=3\%$		扩项
		时间	680899		(0~160) s	$U=0.5s$		
81	*离子计	浓度	680703	实验室离子计检 定规程 JJG 757	pX: 0.001~ 14.000	$U=(0.002\sim0.02)$ pX		扩项
		电压	680703		(-2000~2000) mV	$U=0.1$ mV		
		温度	680703		(0~100) $^{\circ}$ C	$U=0.5$ $^{\circ}$ C		
82	*测汞仪	汞浓度	680124	测汞仪检定规程 JJG 548	吸收类: (0.1~30.0) ng	$U_{rel}=3.2\%$		扩项
					荧光类: (0~3) ng	$U_{rel}=4.6\%$		
83	*定氮仪	氮浓度	681204	元素分析仪校准 规范 JJF 1321	(0.001~100) %	$U_{rel}=(3.0\sim6.0)\%$		扩项
		取样质量	681204		(0~200) g	$U=1mg$		
84	*大气采样器	流量	680834	大气采样器检定 规程 JJG956	(0.1~6.0) L/min	$U_{rel}=1.7\%$		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		时间	68083 4		(0.1~3600) s	$U=0.5s$		
		温度	68083 4		(0~100) °C	$U=0.5$ °C		
85	*激光粒度分析仪	粒度	68084 1	激光粒度分析仪 校准规范 JJF 1211	(0.4~5) μm	$U_{rel}=6.$ 0%		扩项
					(5~20) μm	$U_{rel}=4.$ 3%		
					(20~100) μm	$U_{rel}=3.$ 0%		
86	*液体颗粒计数器	计数	68084 0	液体颗粒计数器 检定规程 JJG1061	($10\sim 10^7$)	$U_{rel}=8$ %		扩项
		粒度	68084 0		(2.1~100) μm	$U_{rel}=4$ %		
87	*氮吸附法比表面积测试仪	比表面积	68110 3	氮吸附比表面积 测试仪校准规范 STJF1031	(0.221~898) m^2/g	$U_{rel}=3$ %		扩项
		总孔容	68110 3		(0.806~0.982) cm^3/g	$U_{rel}=3.$ 3%		
		平均孔径	68110 3		(7.69~14.21) nm	$U_{rel}=2.$ 4%		
八、光学								
1	色温表	色温	61050 7	色温表检定规程 JJG 212	2856K	$U=22K$		
					3000K	$U=30K$		
					6598K	$U=118$ K		
2	机动车前照灯检测仪	发光强度	70020 7	机动车前照灯检测仪 检定规程 JJG 745	(5~60) kcd	$U_{rel}=3.$ 0%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
3	*光色电综合分析系统	光通量	670119	光色电综合分析系统校准规范 STJF 1004	(10~10000) lm	$U_{rel}=2.0\%$		
		色温	670119		(2500~3500) K	$U=26K$		
		波长	670119		(250~600) nm	$U=0.5nm$		
		色坐标	670119		x、y: (0~1)	$U=0.03$		
4	*澄明度检测仪	照度	670106	澄明度检测仪校准规范 JJF 1287	(10~3000) lx	$U_{rel}=5.3\%$		
		时间	660212		(0~100) s	$U=0.3s$		
5	光照度计	照度	670105	光照度计检定规程 JJG 245	(10~3000) lx	$U_{rel}=2.2\%$	不测: 标准级	
6	*测色色差计	色度	670203	测色色差计检定规程 JJG 595	Y: 0~100	$U=2.2$		
					x, y: (0~1)	$U=0.005$		
7	*白度计	白度	670202	白度计检定规程 JJG 512	Wb: (65~95)	$U=2.2$	不测: 工作标准白板	
8	*光泽度计	光泽度	670528	镜向光泽度计和光泽度板检定规程 JJG 696	(0~100) GU	$U=1.5GU$	不测: 标准级	
9	*反射光度计	白度	680104	反射光度计检定规程 JJG(轻工) 48	Wb: (65~95)	$U=2.2$	不测: 镜面反射误差	
		色度	680104		Y: 0~100	$U=2.2$		
					x, y: 0~1	$U(x), U(y)=0.005$		
10	*阿贝折射仪	折射率	670519	阿贝折射仪检定规程 JJG625	(1.3330~1.6580) nD	$U_{rel}=0.016\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
11	*半自动生化分析仪	吸光度	680999	半自动生化分析仪检定规程 JJG 464	(0.1~1.0) Abs	$U_{rel}=2.8\%$		
		波长	680999		(340~700)nm	$U=1\text{nm}$		
12	*酶标分析仪	吸光度	700506	酶标分析仪检定规程 JJG861	(0.187~1.604) Abs	$U=0.013\text{Abs}$		
		波长	700506		(405~620) nm	$U=1.2\text{nm}$		
13	亮度计	亮度	670107	亮度计检定规程 JJG211	(25~1000) cd/m^2	$U_{rel}=5.2\%$		
		色校准值	670107		x : (0.1544~0.7274) y: (0.0491~0.4664)	$U=0.02$		
14	*标准光源箱	照度	670106	标准光源箱校准规范 JJF(纺织)055	(50~3000) lx	$U_{rel}=5.3\%$		
		色温	670106		(2300~7000) K	$U=120\text{K}$		
15	*日晒气候色牢度仪	温度	700127	日晒气候色牢度试验仪校准规范 JJF(纺织)051	(60~300) $^{\circ}\text{C}$	$U=0.3^{\circ}\text{C}$		
		辐射照度	700127		(35~150) W/m^2	$U_{rel}=13\%$		
16	*氙弧灯气候老化试验设备	辐射照度	610314	氙弧灯人工气候老化试验装置辐射照度参数校准规范 JJF 1525	0.01 uw/cm^2 ~200 w/m^2	$U_{rel}=13\%$		扩项
17	*漫透射视觉密度计	密度	670526	漫透射视觉密度计检定规程 JJG 920	(0~4.0)	$U=0.020$		扩项
18	*透射式烟度计	吸收比	700202	《透射式烟度计》检定规程 JJG976	(19.17~67.03) %	$U=0.7\%$		扩项
		温度	700202		(10~150) $^{\circ}\text{C}$	$U=0.5^{\circ}\text{C}$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
19	*分布光度计	光强	68019 9	分布光度计校准规范 STJF1030	(10~1000) cd	$U_{rel}=3.0\%$		扩项
		照度	68019 9		(10~3000) lx	$U_{rel}=3.0\%$		
		角度	68019 9		(0~360) °	$U=0.3^\circ$		
		色温	68019 9		(2856~6598) K	$U=26K$		
		色坐标	68019 9		(0.0197~0.7271)	$U=0.03$		
		波长	68019 9		(250~600) nm	$U=0.5nm$		
		光通量	68019 9		(10~11112) lm	$U_{rel}=2.5\%$		
20	*罗维朋比色计	罗维朋色度	67020 6	罗维朋比色计检定规程 JJG 758	(0.1~70)	$U=0.7$ 罗维朋 单位		扩项
21	紫外辐射照度计	辐照度	67040 1	紫外辐射照度计 JJG879	UV-A1: (0.1~10000) $\mu W/cm^2$	$U_{rel}=13\%$		扩项
					UV-365: (0.1~10000) $\mu W/cm^2$	$U_{rel}=13\%$		
					UV-310: (0.1~5000) $\mu W/cm^2$	$U_{rel}=13\%$		
					UV-254: (0.1~5000) $\mu W/cm^2$	$U_{rel}=13\%$		
九、声学								

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
1	*电话分析仪	频率	65060 4	电话电声测试仪 检定规程 JJG 869	(100~ 8000)Hz	$U_{rel}=0.$ 2%	只测信号源部分	
		幅频特性	65060 4		(0.5~ 10)V, 100Hz~ 8000Hz	$U=0.3d$ B		
2	*电声测试仪	声压级	65060 4	电声测试仪校准 规范 JJF 1339	(74、84、 94、104、 114) dB, 1k Hz	$U=0.6d$ B		
		频率	65060 4		20Hz~ 20kHz	$U_{rel}=0.$ 1%		
		幅频特性	65060 4		(0.5~ 10)V, 20Hz~ 20kHz	$U=0.3d$ B		
		失真度	65060 4		(0.01~ 30)%, 20Hz ~20kHz	$U_{rel}=1.$ 5%		
3	*声级计	声压级	63010 7	声级计检定规程 JJG 188	(74、84、 94、104、 114) dB, 1k Hz	$U=0.4d$ B		
十、专用设备								
1	*落锤式冲击试验机	长度	62109 9	落锤冲击试验机 校准规范 JJF 1445	(0~ 1300)mm	$U=1.2$ mm		
		质量	62100 9		(0.25~ 16)kg	$U=2.0g$		
		速度	62100 9		(5~9)m/s	$U_{rel}=1$ %		
2	*振动压实成型机	力值	70082 5	振动压实成型机 检定规程 JJG(交通)088	(1890~ 1910)N	$U_{rel}=0.$ 4%		
		频率	70082 5		(28~ 30)Hz	$U_{rel}=2.$ 8%		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		长度	700825		(19.8~398.5)mm	$U=0.05$ mm		
3	*乳化沥青稀浆混合料负荷轮试验仪	长度	700856	乳化沥青稀浆混合料负荷轮试验仪检定规程 JJG(交通)091	(3.0~381)mm	$U=0.13$ mm		
		质量	700856		(56.2~57.2)kg	$U=60$ g		
4	*乳化沥青稀浆混合料湿轮磨耗试验仪	转速	700856	乳化沥青稀浆混合料湿轮磨耗试验仪检定规程 JJG(交通)090	(60~142)r/min	$U=0.3$ r/min		
		质量	700856		(2.25~2.29)kg	$U=4.5$ g		
		长度	700856		(3~280)mm	$U=0.13$ mm		
5	*鞋类冲击试验机	长度	700199	鞋类冲击试验设备校准规范 JJF(闽)1065	(0~500)mm	$U=0.05$ mm		
		速度	700199		(0~200)r/min	$U=1$ r/min		
6	*水泥胶砂流动度测定仪	质量	700808	水泥胶砂流动度测定仪检定规程 JJG(交通)096	(4.2~4.5)kg	$U=50$ g		
		时间	700808		(29~31)s	$U=0.2$ s		
		长度	700808		(9.8~10.2)mm	$U=0.04$ mm		
7	*水泥混凝土拌合物含气量测定仪	压力	700807	水泥混凝土拌合物含气量测定仪检定规程 JJG(交通)094	(0~2.5)MPa	$U=0.01$ MPa		
8	*旋转辊筒式磨耗机	长度	620718	旋转辊筒式磨耗机校准规范 JJF(闽)1067	(50~300)mm	$U=0.13$ mm		
		时间	620708		(123~129)s	$U=0.2$ s		
		角度	620708		(2.5~3.5)°	$U=0.3$ °		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
9	*车轮动平衡机	最小可达剩余不平衡量	700212	车轮动平衡机校准规范 JJF1151	(0~200)g •mm/kg	$U=4.5g$ •mm/kg		
10	*行星式胶砂搅拌机	转速	700899	行星式胶砂搅拌机检定规程 JJG(建材)123	(57~295)r/min	$U=1.7r/min$		
		时间	700899		(0~305)s	$U=0.92s$		
		长度	700899		(135~203)mm	$U=0.26mm$		
11	*水泥胶砂搅拌机	转速	700816	水泥胶砂搅拌机检定规程 JJG(建材)102	(62~143)r/min	$U=1.7r/min$		
		时间	700816		(175~185)s	$U=0.92s$		
		长度	700816		(127.2~196)mm	$U=0.26mm$		
12	*混凝土贯入阻力测定仪	力值	700814	混凝土贯入阻力测定仪 JJG(交通)095	(10~1000)N	$U_{rel}=0.4\%$		
		长度	700814		(5.04~160.6)mm	$U=(0.003~0.1)mm$		
13	*水泥砂浆及混凝土耐磨性试验机	力值	700817	水泥砂浆及混凝土耐磨性试验机 JJG(交通)097	(10~500)N	$U_{rel}=0.4\%$		
		转速	700817		(5~1000)r/min	$U_{rel}=0.5\%$		
		长度	700817		(0~200)mm	$U=(0.005~0.1)mm$		
14	*贯入式砂浆强度检测仪	力值	700899	贯入式砂浆强度检测仪校准规范 JJF 1372	(10~1000)N	$U_{rel}=0.4\%$		
		长度	700899		(0~40.1)mm	$U=0.05mm$		
15	*沥青混合料	容量	700866	沥青混合料渗水仪 JJG(交通)	(0~1000)mL	$U=0.8mL$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
	渗水仪	长度	700866	104	(9.5~222)mm	$U=0.1$ mm		
16	*滚箱式起毛起球仪	摩擦系数	700128	滚箱式起毛起球仪校准规范 JJF(纺织)053	(0.5~1.0)	$U=0.01$ 6		
		转速	700128		(58~62)r/min	$U=0.3$ r/min		
		长度	700128		(0~300)mm	$U=0.04$ mm		
		质量	700128		(0~100)g	$U=4$ mg		
17	*织物起毛起球仪	转速	700128	织物起毛起球仪校准规范 JJF(纺织)031	(59~61)r/min	$U=0.3$ r/min		
		长度	700128		(39.0~90.5)mm	$U=(0.02\sim0.04)$ mm		
		质量	700128		(98~515)g	$U_{rel}=0.1$ %		
18	*织物防钻绒性摩擦试验仪	长度	700199	织物防钻绒性摩擦试验仪校准规范 JJF(纺织)064	(0~200)mm	$U=(0.02\sim0.04)$ mm		
		转速	700199		(133~137)r/min	$U=0.3$ r/min		
19	*感应式织物静电测试仪	长度	700199	感应式织物静电测试仪校准规范 STJF1015	(0~200)mm	$U=(0.03\sim0.04)$ mm		
		转速	700199		(1000~3000)r/min	$U=0.3$ r/min		
		时间	700199		(29.5~30.5)s	$U=0.3$ s		
		直流电压	700199		(100~1000)v	$U_{rel}=0.7$ %		
20	*数字式织物透气量	压力	700139	低压织物透气量仪检定规程 JJG(纺织)047	(0.5~5)kPa	$U_{rel}=2$ %		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
	仪	长度	700139		(0~150)mm	$U=0.04$ mm		
21	*灼热丝试验仪	温度	701049	灼热丝试验仪校准规范 JJF(浙)1050	(950~970)℃	$U=2.0$ °C		
		长度	701049		(2~100)mm	$U=(0.1~0.3)$ mm		
		力值	701049		(1~20)N	$U=0.3$ N		
		时间	701049		(0~60)s	$U=0.4$ s		
22	*垂直法折皱弹性仪	力值	700131	垂直法折皱弹性仪检定规程 JJG(纺织)041	(9.95~10.05)N	$U=0.01$ N		
		时间	700131		(0.01~3600)s	$U=0.3$ s		
		长度	700131		(17.5~18.5)mm	$U=0.04$ mm		
		角度	700131		(0~180)°	$U=0.3$ °		
23	*热变形、维卡软化点温度测定仪	温度	610302	热变形、维卡软化点温度测定仪校准规范 JJF(浙)1051	(50~300)℃	$U=(0.3~0.5)$ °C		
		长度	600639		(0~10)mm	$U=3$ μm		
		质量	620102		10g~2kg	$U=(0.03~3)$ g		
24	*汽车发动机检测仪	转速	700299	汽车发动机检测仪 JJG(交通)013	(100~7200) r/min	$U_{rel}=0.3\%$		
		角度	700299		(0~90)°	$U=1.1$ °		
		电压	700299		(1~45)V	$U_{rel}=0.3\%$		
		电流	700299		(10~500)A	$U_{rel}=0.3\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		时间	700299		(200~2000)ms	$U_{rel}=1.2\%$		
		压力	700299		(0.1~30)MPa	$U_{rel}=0.6\%$		
		温度	700299		(50~150)℃	$U=1^{\circ}\text{C}$		
25	*纸与纸板油墨吸收性测试仪	面积	700423	纸与纸板油墨吸收性测试仪 JJG(轻工)68	(19.6~20.4) cm ²	$U=0.07\text{ cm}^2$		
		时间	700423		(115~125) s	$U=0.06\text{ s}$		
26	*摆锤式织物撕裂仪	长度	700107	摆锤式织物撕裂仪校准规范 JJF(纺织)049	(0~300)mm	$U=0.03\text{ mm}$		
		力值	700107		(5~50)N	$U_{rel}=0.3\%$		
27	*箱包载震荡冲击试验机	弹簧系数	621019	箱包载震荡冲击试验机校准规范 STJF1012	(15.79~19.29)N/m	$U=0.28\text{ N/mm}$		
		频率	621019		(0~50)次/分	$U=1\text{ 次/分}$		
28	*转鼓式摩擦静电测试仪	长度	700199	转鼓式摩擦静电测试仪校准规范 STJF1013	(0~150)mm	$U=(0.03\sim 0.04)\text{ mm}$		
		转速	700199		(390~410) r/min	$U=0.3\text{ r/min}$		
		电压	700199		(97~1030)V	$U_{rel}=0.7\%$		
		质量	700199		(490~510)g	$U=0.1\text{ g}$		
29	*摇黑板机	绕纱密度	700126	摇黑板机校准规范 JJF(纺织)012	(7~19)根/cm	$U_{rel}=1\%$		
		质量	700126		(10~50)g	$U_{rel}=1\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		长度	700126		(0~300)mm	$U=0.03$ mm		
30	*毛细管效应仪	时间	700138	毛细管效应仪校准规范 JJF(纺织)056	(1795~1805)s	$U=0.2$ s		
		温度	700138		(0~100)℃	$U=0.3$ °C		
		长度	700138		(0~300)mm	$U=0.03$ mm		
		质量	700138		(2.5~3.5)g	$U=4$ mg		
31	*法拉第筒织物带电测试仪	电荷量	700199	法拉第筒织物带电测试仪校准规范 STJF1014	(0.01~2.0)μC	$U_{rel}=0.4$ %		
		长度	700199		(40~100)mm	$U=0.04$ mm		
32	*淋雨试验设备	淋雨强度	700318	淋雨试验设备 JJF(军工) 17	(0~150)mm/h	$U=0.02$ mm/h		
		风速	700318		(0~25)m/s	$U=0.7$ m/s		
		长度	700318		(0.5~4.5)mm	$U=0.05$ mm		
33	*崩解时限测试仪	长度	022499	崩解时限测试仪 JJF 1449	(0~100)mm	$U=0.1$ mm		
		温度	022499		(36~38)℃	$U=0.3$ °C		
		时间	022499		(5~15)min	$U=0.2$ s		
		频率	022499		(30~32)次/分	$U=0.3$ 次/分		
34	*织物厚度仪	压脚质量	700120	织物厚度仪校准规范 JJF(纺织)020	(0.1~4000)g	$U=0.2$ g ~5g		
		砝码质量	700120		(50~200)cN	$U=0.3$ cN N		
		压脚与基准板平行度	700120		(0.1~6.43)mm	$U_{rel}=0.01$ %		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		厚度示值	700120		(0~10)mm	$U=0.01$ mm		
35	*染色摩擦色牢度仪	转速	700127	染色摩擦色牢度仪校准规范 JJG(纺织)027	(57~63)r/min	$U=0.1$ r/min		
		长度	700127		(16±0.1)mm	$U=0.02$ mm		
		力值	700120		(8.8~9.2)N	$U=0.01$ N		
		长度	700120		(30~100)mm	$U=(0.01~0.03)$ mm		
36	*织物胀破强力仪	长度	700103	织物胀破强力仪校准规范 JJF(纺织)048	(10~300)mm	$U=(0.02~0.05)$ mm		
		压力	700103		(0~10)MPa	$U_{rel}=0.40\%$		
		时间	700103		(59~61)s	$U=0.4$ s		
37	*汗渍色牢度仪	长度	700127	汗渍色牢度仪校准规范 JJF(纺织)028	(0~300)mm	$U=(0.01~0.03)$ mm		
		试样板平行度	700127		(1~10)mm	$U=(0.01~0.03)$ mm		
		上压板、底板平面度	700127		(1~10)mm	$U=(0.01~0.03)$ mm		
		加压锤重力值	700127		(5~50)N	$U_{rel}=0.4\%$		
38	*熨烫升华色牢度仪	长度	700127	熨烫升华色牢度仪校准规范 JJF(纺织)029	(0~200)mm	$U=(0.1~0.3)$ mm		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		温度	70012 7		(50~200) °C	$U=0.3$ °C		
		力值	70012 7		(1~20)N	$U=0.3$ N		
39	*斜面法织物硬挺度试验仪	长度	70010 4	斜面法织物硬挺度试验仪校准规范 JJF(纺织) 054	(1~200)mm	$U=(0.01\sim 0.03)$ m		
		斜面角度	70010 4		(1~50)°	$U=0.4$ °		
40	*熔体流动速率仪	温度	04019 9	熔体流动速率仪 检定规程 JJG 878	(100~400)°C	$U=0.3$ °C		
		质量	04011 9		1g~10kg	$U=0.05$ g~5g		
		长度	04011 9		口模尺寸 (1.170~2.110)mm	$U=5$ μm		
		熔体流动速率	68060 9		(0.1~10)g/10min	$U=0.35$ g/10min		
41	*胶砂试体成型振实台	长度	70082 8	胶砂试体成型振实台 检定规程 JJG(建材) 124	振幅 (14.7~15.3)mm	$U=0.03$ mm		
		时间	70082 8		(58~62)s	$U=0.4$ s		
		质量	70082 8		20kg	$U=10$ g		
42	*水泥胶砂振动台	频率	70082 8	水泥胶砂振动台 检定规程 JJG(建材) 103	(10~100)Hz	$U_{rel}=0.3\%$		
		时间	70082 8		(115~125)s	$U=1.2$ s		
		长度	70082 8		(0~300)mm	$U=0.5$ mm		
		质量	70082 8		(31.5~32.5)kg	$U=10$ g		
43	*耐洗色牢度	转速	70012 7	耐洗色牢度试验机校准规范	(35~45)r/min	$U=1\%$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
	试验机	时间	700127	JJF(纺织)026	(10~60)min	$U=0.4s$		
		温度	700127		(30~100) $^{\circ}C$	$U=0.3^{\circ}C$		
44	*织物缩水率试验机	转速	700137	织物缩水率试验机校准规范 JJF(纺织)052	(1~600)r/min	$U=0.3\%$		
		温度	700137		(1~100) $^{\circ}C$	$U=0.3^{\circ}C$		
		时间	700137		(2~60)min	$U=2s$		
45	*橡胶阿克隆磨耗试验机	力值	700143	橡胶阿克隆磨耗试验机检定规程 JJG(化工)103	(1~100)N	$U_{rel}=0.5\%$		
		转速	700143		(1~300)r/min	$U_{rel}=0.3\%$		
		角度	700143		(5~35) $^{\circ}$	$U=0.4^{\circ}$		
46	*沥青混合料马歇尔击实仪	长度	700833	沥青混合料马歇尔击实仪检定规程 JJG(交通)065	(0~500)mm	$U=0.05mm$		
		质量	700833		(4527~10220)g	$U=1g$		
		速度	700833		(60 \pm 5)次/分	$U=1次/分$		
47	*沥青延度仪	速度	700851	沥青延度仪检定规程 JJG(交通)023	(1 \pm 0.05)cm/min、(5 \pm 0.25)cm/min	$U=0.02cm/min$		
		长度	700851		(0~300)mm	$U=(0.05\sim0.08)m$		
		温度	700851		(4.5~25.5) $^{\circ}C$	$U=1^{\circ}C$		
48	*摩擦、寿命类综合测试仪	长度	700199	摩擦、寿命类综合测试仪校准规范 STFJ1020	(0~300)mm	$U=(0.05\sim0.08)m$		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		角度	700119		(0~180) °	$U=0.2^{\circ}$		
		速度	700119		(10~500) 次/分	$U_{rel}=0.2\%$		
		力值	700119		(10~300)N	$U_{rel}=0.5\%$		
49	*沥青软化点仪	长度	700852	沥青软化点仪检定规程 JJG(交通) 057	(6.3~150)mm	$U=0.02$ mm		
		质量	700852		(3.45~3.55)g	$U=0.02$ g		
50	*雷氏夹及雷氏夹膨胀测定仪	长度	700847	雷氏夹及雷氏夹膨胀测定仪 JJG(交通) 093	(1.8~177.0)mm	$U=0.03$ mm		
		质量	700847		(299.9~300.1)g	$U=0.03$ g		
51	*水泥净浆搅拌机	转速	700815	水泥净浆搅拌机检定规程 JJG(建材) 104	(10~200)r/min	$U_{rel}=0.3\%$		
		时间	700815		(15~240)s	$U=0.4s$		
52	*固结仪	力值	620725	固结仪校准规范 JJF1311	(1~12)kN	$U_{rel}=0.4\%$		扩项
		长度	620725		(0~10)mm	$U=9.0\mu$ m		
53	*织物纱长测定仪	长度	700116	织物纱长测定仪校准规范 JJF(纺织)021	(0~1000)mm	$U=0.05$ mm		扩项
54	*土壤液塑限检测仪	质量	700842	土壤液塑限检测仪检定规程 JJG(交通) 069	(76~100)g	$U=0.06$ g		扩项
		角度	700842		(29~31) °	$U=3'$		
		长度	700842		(20~50)mm	$U=0.04$ mm		
55	*药物溶出度	温度	7099	药物溶出度分析仪校准规范 JJF	(0~50) °C	$U=0.2$ °C		扩项

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
	分析仪	转速	7099	(浙) 1096	(20~300) r/min	$U=0.3r/min$		
56	*钢筋标距仪	长度	700841	钢筋标距仪检定规程 JJG(苏)67	(0~300)mm	$U=0.04mm$		扩项
57	*垂直燃烧试验仪	长度	701024	垂直燃烧试验仪校准规范 JJF(纺织) 068	(0~200)mm	$U=0.04mm$		扩项
		角度	701024		(24~26)°	$U=0.1°$		
		时间	701024		(0.1~1800)s	$U=0.3s$		
58	造纸专用冲切器具	长度	700499	造纸专用冲切器具校准规范 JJF(轻工) 114	(0~200)mm	$U=0.02mm$		扩项
59	混凝土裂缝宽度及深度测量仪	长度	103801	混凝土裂缝宽度及深度测量仪校准规范 JJF1334	深度: (35~100)mm	$U=1.8mm$		扩项
					宽度: (0.02~1)mm	$U=0.008mm$		
60	混凝土钢筋位置测定仪	长度	103801	混凝土钢筋位置测定仪检定规程 JJG(交通) 131	(12~80)mm	$U=0.8mm$		扩项
61	*钢筋保护层厚度、楼板厚度测量仪	长度	600635	钢筋保护层厚度、楼板厚度测量仪校准规范 JJF 1224	钢筋直径: (12~25)mm	$U=1mm$		扩项
					钢筋保护层厚度: (12~65)mm	$U=0.8mm$		
					楼板厚度测量仪: (50~300)mm	$U=0.5mm$		
62	*纸箱抗压试验机	力值	700428	纸箱抗压试验机检定规程 JJG(轻工)115	(1~50)kN	$U_{rel}=0.4%$		变更

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		速度	700428		(1~60) mm/min	$U_{rel}=0.5\%$		
		长度	700428		(0~100) mm	$U=0.06$ mm		
63	*纸与纸板耐破度仪	压力	700416	纸与纸板耐破度仪检定规程 JJG(轻工)61	(0.1~6) MPa	$U=0.2\%$ FS		变更
64	*洛杉矶磨耗试验机	转速	700817	洛杉矶磨耗试验机检定规程 JJG(交通)108	(30~33) r/min	$U=0.4$ r/min		扩项
		长度	700817		(45~715) mm	$U=0.6$ mm		
		质量	700817		(390~445) g	$U=1.2$ g		
65	*纸板压缩强度试验仪	力值	700401	纸板压缩强度试验仪检定规程 JJG(轻工)49	(1~10) kN	$U_{rel}=0.4\%$		扩项
		速度	700401		(10~15) mm/min	$U=0.2$ mm/min		
66	*摆锤式纸张抗张试验机	力值	700412	摆锤式纸张抗张试验机检定规程 JJG(轻工)58.1	(1~1000) N	$U_{rel}=0.4\%$		扩项
		速度	700412		(1~500) mm/min	$U_{rel}=0.12\%$		
67	*柔软度仪	力值	700419	柔软度仪检定规程 JJG(轻工)64	(10~1000) mN	$U_{rel}=0.14\%$		扩项
		速度	700419		(0~2) m/s	$U=0.06$ m/s		
68	回弹仪	长度	700801	回弹仪检定规程 JJG817	(0~150) mm	$U=0.03$ mm		扩项
		力值	700801		指针摩擦力: (0.2~1) N	$U=0.04$ N		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度 (k=2)	说明	备注
		刚度	70080 1		弹击拉簧 刚度： (55~ 1200) N/m	$U=4N/m$		
		率定值	70080 1		0~100	$U=0.7$		
69	轻便磁感风向风速表	风速	70031 8	轻便磁感风向风速表试行检定规程 JJG515	(2~ 20) m/s	$U=0.5$ m/s		扩项
70	电接风向风速仪	风速	70031 8	电接风向风速仪检定规程 JJG613	(2~ 20) m/s	$U=0.5$ m/s		扩项
71	*纸与纸板定量测定仪	质量	70040 9	纸与纸板定量测定仪检定规程 JJG(轻工)54.2	(1~50) g	$U=0.00$ 4g		
72	*纸与纸板短距压缩试验仪	力值	70042 9	纸与纸板短距压缩试验仪检定规程 JJG(轻工)116	(8~500) N	$U_{rel}=0.$ 16%		
73	*纸与纸板撕裂度仪	力值	70041 8	纸与纸板撕裂度仪检定规程 JJG(轻工)63	(2~16) N	$U_{rel}==$ 0.4%		
		角度	70041 8		(0~90) °	$U=$ 0.2°		
		长度	70041 8		(0~105) mm	$U=$ 0.05m m		
74	*纸与纸板平滑度仪	压力	70041 7	纸与纸板平滑度仪检定规程 JJG(轻工)62	(-100~ 0) kPa	$U=0.3$ %FS		
		时间	70041 7		(950~ 1050) s	$U=0.3s$		
75	*佛格式纸与纸板耐磨试验仪	力值	70042 5	佛格式纸与纸板耐磨试验仪 JJG(轻工)70	(5~30) N	$U_{rel}=2.$ 2%		
		频率	70042 5		(155~ 165) 次 /min	$U=1$ 次 /min		

序号	测量仪器名称	被测量	领域代码	校准规范名称及编号	测量范围	扩展不确定度(k=2)	说明	备注
		角速度	700425		(5~15)°/s	$U=0.3^\circ/s$		
76	*纸箱抗压试验机	力值	700428	纸箱抗压试验机 检定规程 JJG(轻工)115	(1~50)kN	$U_{rel}=0.4\%$		
77	*织物平磨仪	转速	700129	织物平磨仪校准 规范 JJF(纺织) 036	(42~50)r/min	$U=1r/min$		
		质量	700129		(100~3000)g	$U=(1\sim6)g$		
		长度			直径:(1~122)mm	$U=0.03mm$		
					平行度:(0~10)mm	$U=0.01mm$		

附表 4

任务编号: L03647-2020-01

推荐认可的校准和测量能力范围 (英文)

Lab: Guangdong Shitong Measured Instruments Service Co., Ltd.

Add: Shangliangzhou Industrial Park, Houde, Daojiao, Dongguan, Guangdong, China

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
一、Geometry								
1	Gauge Blocks	Length	600201	Gauge Blocks JJG 146	(0.5~500) mm	$U=0.5 \mu\text{m}+5 \times 10^{-6} L$		
2	Steel Rule	Length	600110	Steel Rule JJG 4	(0~50) m	$U=0.1\text{mm}+1 \times 10^{-5} L$		
3	*Imaging Probe Measuring Machines	Length	600121	Imaging Probe Measuring Machines JJF 1318	(0~500) mm	$U=1.2\mu\text{m}+2 \times 10^{-6} L$		
4	*Digital Display Height Measuring Instrument	Length	600410	C. S. for Digital Display Height Measuring Instrument JJF 1254	(0~1000) mm	$U=1.2\mu\text{m}+3 \times 10^{-6} L$		
5	*Toolmaker's Microscope	Length	600119	Toolmaker's Microscope JJG 56	(0~200) mm	$U=1.0 \mu\text{m}+6 \times 10^{-6} L$		
6	*Dial Test Indicator	Length	600209	Dial Test Indicator JJG 35	d:0.001 mm (0~0.4) mm	$U=1.2\mu\text{m}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					d:0.01mm (0~1)mm	$U=2.1\mu\text{m}$		
7	*Universal Bevel Protractors	Angle	600312	V. R. of Universal Bevel Protractors JJG 33	(0~360)°	$U=1'$		
8	Paint film scribe、Lattice knife	Length	600699	C. S. for Paint film scriber JJF(WAN) 53	(0~3)mm	$U=5\mu\text{m}$		Change
9	*Projectors	Length	600122	Projectors JJF 1093	(0~300)mm	$U=1.2\mu\text{m}+6\times 10^{-6}L$		
10	*Roundness Measuring Instrument	Roundness	600602	V. R. for Measurement Standard Instrument of Roundness and Cylindricity JJG 429	(0.1~10)μm	$U_{\text{rel}}=3\%$		
11	*Current Calipers	Length	600213	Current Calipers JJG 30	(0~300)mm	$U=0.01\text{mm}$		
					(>300~1000)mm	$U=0.02\text{mm}$		
					(>1000~2000)mm	$U=0.03\text{mm}$		
12	*Bar Code Verifiers	Length	670535	Bar Code Verifiers JJG 979	(0.2~10)mm	$U=14\mu\text{m}$		
13	*Micro meter	Length	600204	Verification Regulation of	(0~50)mm	$U=1.2\mu\text{m}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
				Micrometer JJG21	(>50~ 150) mm	$U=1.8\mu\text{m}$		
					(>150~ 300) mm	$U=3.0\mu\text{m}$		
					(>300~ 500) mm	$U=4.5\mu\text{m}$		
14	*Contact (Stylus) Surface Contour Tester	Length	600632	C. S. f for Contact (Stylus) Surface Contour Tester JJF(MIN)1043	R(1~5) mm	$U=1.3\mu\text{m}$		
					X axis: (0~ 200) mm	$U=1.0\mu\text{m}$		
		Angle	600632	(0~ 180) °	$U=41''$			
15	*shoes folding machine	Angle	700152	Calibration Specification for Shoes folding machine STJF1010	(0~ 90) °	$U=0.1^\circ$		
		Speed	700152		(50~ 300) r/min	$U=1\text{r/min}$		
16	*fiber cutter	Length	700117	C. S. for fiber cutter JJF(Textile)02 2	(0~ 50) mm	$U=(8\sim12)\mu\text{m}$		
17	*Yarn Twist Tester	Length	700123	Calibration Specification for Yarn Twist Tester JJF(Textile)01 0	(250~ 500) mm	$U=0.1\text{mm}$		
		Force	700123		(0.1~ 500) cN	$U_{\text{rel}}=2\%$		
		Rotational speed	700123		(1~ 1000) r/min	$U=0.3\text{r/min}$		
18	*National standard wear tester	Length	620718	Calibration Specification for National standard wear tester STJF1011	(0~ 100) mm	$U=0.01\text{mm}$		
		Angle	620718		(0~90) °	$U=0.1^\circ$		
		Frequency	620718		(0~ 300) r/min	$U=1\text{r/min}$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
		Mass	620718		1g~ 2000g	$U=0.1g$		
19	*Trave ling Counti ng Glasse s	Length	700118	The Specifications of Calibration for Traveling Counting Glasses JJF(Textile)02 3	(0~ 50)mm	$U=0.04mm$		
20	*Free drop Tester s	Length	040108	C. S. for Free drop Testers STJF1006	(0~3)m	$U=1mm$		
		Angle	040108		$\pm 1^\circ$	$U=0.6^\circ$		
		Freque ncy	040108		(0~ 60)P/mi n	$U=1P/min$		
21	Electr onic Level Meter	Angle	600315	Electronic Level Meter JJF 1119	(0~90) °	$U=0.02^\circ$		
22	*Stere omi crosco pe	Magnif icatio n	600120	C. S. for Stereomi croscope JJF (MIN) 1063	5X~ 100X	$U_{rel}=0.8\%$		
23	Level Rules	Angle	600315	C. S. for Level Rules JJF 1085	(0.5~ 10) mm/m	$U_{rel}=10\%$		
24	*Trave ling Counti ng Glasse s	Length	700118	C. S. for Traveling Counting Glasses JJF(Textile)02 3	(0~ 50)mm	$U=0.1mm$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
25	*Enameled wire winding line calibration method and test equipment Part third: elongation tester	Elongation	600699	Enameled wire winding line calibration method and test equipment Part third: elongation tester JBT 4279.3	(0~60)%	$U=0.2\%$		
26	Depth Steel Tape	Length	600111	V. R. of Steel Rule V. R. of Depth Steel Tape JJG 1	(0~300) mm	$U=0.03\text{mm}$		
					(>300~600) mm	$U=0.05\text{mm}$		
					(>600~1000) mm	$U=0.07\text{mm}$		
27	Smooth Limit Gauge	Length	600613	V. R. of Smooth Limit Gauge JJG 343	Φ (1~100) mm	$U=(0.8\sim 2.4)\mu\text{m}$		
28	Feeler Gauge	Length	600608	V. R. of Feeler Gauges JJG 62	(0.02~1.00) mm	$U=(1.4\sim 5.2)\mu\text{m}$		
29	Micrometers for Measuring Inside Dimension	Length	600203	C. S. of Micrometers of Measuring Inside Dimension JJF 1411	(5~50) mm	$U=2.3\mu\text{m}$		
					(>50~100) mm	$U=3.2\mu\text{m}$		
					(>100~150) mm	$U=3.9\mu\text{m}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
30	Micrometer with Dial Comparator	Length	600206	V. R. of Micrometer with Dial Comparator and Indicating Snap Gauge JJG 26	(0~50) mm	$U=1.2\mu\text{m}$		
					(>50~100) mm	$U=1.8\mu\text{m}$		
31	*Micrometers with Gauge	Length	600207	V. R. of Micrometers with Gauge JJG 427	(0~50) mm	$U=1.2\mu\text{m}$		
					(>50~100) mm	$U=1.8\mu\text{m}$		
32	*Measuring Microscope	Length	600120	V. R. of Reading Microscope and Measuring Microscope JJG 571	(0~50) mm	$U=2\mu\text{m}$		
33	Fineness of Grind Gauge	Length	600629	V. R. of Fineness of Grind Gauge JJG 905	(0~150) μm	$U=3\mu\text{m}$		
34	*Depth Micrometer	Length	600205	V. R. of Depth Micrometers JJG 24	(0~100) mm	$U=1.6\mu\text{m}$		
35	Wooden Rule (wooden Fluted Rule)	Length	600115	V. R. of Wooden Rule (wooden Fluted Rule) JJG2	(0~500) mm	$U=0.2\text{mm}$		
36	Internal Micrometer	Length	600202	V. R. of Internal Micrometer JJG 22	(50~100) mm	$U=2.3\mu\text{m}$		
37	*Common Normal Micrometer	Length	600511	V. R. of the Common Normal Micrometer JJG 82	(0~100) mm	$U=2\mu\text{m}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
38	Calibration Specification for Straight Edges	Straightness	600315	C. S. for Test Sineves JJF 1097	(400~3000)mm	$U=2.5\mu\text{m}$		
39	Test Sieves	Length	600641	C. S. of Test Sieves JJF 1175	(0.02~10)mm	$U=5\mu\text{m}$		
					(>10~125)mm	$U=0.05\text{mm}$		
40	*Ultrasonic Thickness Instrument	Length	600635	C. S. for Ultrasonic Thickness Instrument JJF 1126	(0.5~200)mm	$U=(0.01\sim 0.05)\text{mm}$		
41	*Dial Gauges	Length	600208	V. R. of Dial Gauges (dial and digital) JJG 34	(0~10)mm (reading in 0.01mm)	$U=6.8\mu\text{m}$		
					(0~5)mm (reading in 0.001mm)	$U=3.2\mu\text{m}$		
42	*Height Gauge	Length	600215	V. R. of Height Gauge JJG 31	(0~500)mm	$U=0.02\text{mm}$		
43	*Thickness Gauge	Length	600219	V. R. of Thickness Gauge JF1255	(0~30)mm	$U=2\mu\text{m}$		
44	*Wide Range Gauges Reading in 0.01mm	Length	600210	V. R. of wide Range Gauges Reading in 0.01mm JJG 379	(0~50)mm	$U=(8\sim 10)\mu\text{m}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
45	*Depth Dial Gauge	Length	600212	V. R. of Depth Dial Gauge JJG 830	(0.01~100)mm	$U=0.01\text{mm}$		
46	*Surface Plates	Force	600606	V. R. of Surface Plates JJG 117	(160mm × 100mm) ~ (2500mm × 4000mm)	$U=(1.5\sim 3)\mu\text{m}$		
47	Frame Level	Angle	600313	C. S. for Frame Levels and Shaft Levels JJF 1084	(0.02~0.08)mm/m	$U_{\text{rel}}=6\%$		
48	*Magnetic and Eddy Current Measuring Instrument for Coating Thickness	Length	600635	V. R. of Magnetic and Eddy Current Measuring Instrument for Coating Thickness JJG 818	(0~1)mm	$U=1\mu\text{m}+1\% H$		
49	*Paste thickness Measuring	Length	600635	C. S. for Paste thickness Measuring STJF 033	(0~150) μm	$U=2\mu\text{m}$		
50	Squares	Angle	600308	V. R. of Squares JJG 7	Length (60~300)mm	$U=4\mu\text{m}/300\text{mm}$		
		Length	600308		(60~300)mm	$U=0.1\text{mm}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
51	Measuring Circumference and Diameter of Flexible Part	Length	600118	V. R. of Tape for Measuring Circumference and Diameter of Flexible Part JJG 670	(0~1.5)m	$U=0.2\text{mm}$		
52	Construction Quality Tester Sets	Angle	700899	C. S. for Construction Quality Tester Sets JJF 1110	0.5mm/2m	$U=0.1\text{mm}/2\text{m}$		
		Length	700899		(1~1000)mm	$U=0.1\text{mm}$		
					Matrix Plate (0.05~15)mm	$U=0.01\text{mm}$		
53	Wedge-Shape Filler Gauges	Length	700878	Calibration Specification for Wedge-Shape Filler Gauges JJF 1548	(1~15)mm	$U=0.1\text{mm}$		
54	Straight Edge	Straightness	600308	V. R. of Straight Edge JJG 63	(125~300)mm	$U=1.0\mu\text{m}$		
55	pin gage	Diameter	600616	C. S. for Cylindrical measuring pin JJF 1207	(0.1~10)mm	$U=0.3\mu\text{m}$		
					(10~25)mm	$U=0.5\mu\text{m}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
56	*Instrument for the Measurement of Surface Roughness	Roughness	600626	C. S. of Contact (Stylus) Instruments of Surface Roughness Measurement by the Profile Method JJF 1105	Ra: (0.1~1.6) μm	$U_{rel}=8\%$		
57	Radius Gauge	Length	600640	V. R. of Radius Gauge JJG 58	R(1~25)mm	$U=(0.005\sim 0.008)\text{mm}$		
58	Screw Thread Gauge	Length	600527	V. R. of Screw Thread Gauge JJG 60	P(0.40~6.0)mm	$U=(3\sim 7)\mu\text{m}$		
59	Callipers for welding Welding Inspection	Length	600645	V. R. of Callipers for welding Welding Inspection JJG 704	(0~100)mm	$U=0.02\text{mm}$		
		Angle	600645		(0~90)°	$U=15'$		
60	Moulds	Length	600647	C. S. for Moulds JJF 1307	(0~500)mm	$U=(0.03\sim 0.06)\text{mm}$		
		Angle	600647		(0~500)mm	$U=0.034\text{mm}$		
		Flatness	600647		(200×200)mm	$U=0.018\text{mm}$		
61	*Microcator	Length	600622	V. R. of Microcator JJG118	(-100 μm~+100 μm)	$U=(0.1\sim 0.6)\mu\text{m}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
62	*Comparators of Machine Type	Length	600622	V. R. of Comparators of Machine Type JJG39	(-100 μ m ~ +100 μ m)	$U=(0.1 \sim 1.4)\mu\text{m}$		
63	*Dial Gauges	Length	600211	C. S. for Bore Dial Indicators JJF1102	(2 ~ 450) mm	$U=1.8\mu\text{m}$		
64	*Dial Gauges	Length	600211	C. S. for Bore Dial Indicators JJF1102	(10 ~ 400) mm	$U=1.2\mu\text{m}$		
65	*Concentricity Tester	Length	600508	C. S. for Bore Dial Indicators JJF1109	(0 ~ 500) mm	$U=(1.8 \sim 3.6)\mu\text{m}$		
66	*Dial Snap Gauges	Length	600611	C. S. for Concentricity Tester JJF1253	(5 ~ 100) mm	$U=(5.0 \sim 18.0)\mu\text{m}$		
67	*X-Ray Fluorescence Coating Thickness Instruments	Length	600635	C. S. for X-Ray Fluorescence Coating Thickness Instruments JJF1306	(0.2 ~ 15) μm	$U_{\text{rel}}=6\%$		
68	*Biological Microscopes	Magnification	600120	C. S. for Biological Microscopes JJG 1402	10 \times ~ 100 \times	$U_{\text{rel}}=1.2\%$		
69	*Wrap Reelers	Tachometer	700114	C. S. for Wrap Reelers JJF (Spin) 019	(0 ~ 100) r/min	$U=1\text{r/min}$		
		Force	700114		(0.1 ~ 10) N	$U_{\text{rel}}=0.4\%$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
		Length	700114		(0~3)m	$U=0.3\text{mm}$		
70	*Circle Sample Cutter s	Length	700154	C. S. for Circle Sample Cutters JJF (Spin)061	(0~ 200) mm	$U=0.04\text{ mm}$		
71	*Autom obile Side Side Slip Tester	Length	700211	V. R. of Automobile Side Side Slip Tester JJG 908	(0~ 10)m/km	$U=0.07\text{m/k}$ m		
72	*Motor cycle Wheel Deviat ion Tester s	Length	700215	V. R. of Motorcycle Wheel Deviation Testers JJG 910	(0~ 15)mm	$U=0.07\text{mm}$		
73	Lamp Hoder Gauge	Length	600614	C. S. for C. S. for Lamp Hoder STJF1002	(0~ 150)mm	$U=0.005\text{m}$ m		
		Angle	600614		(0~ 360)°	$U=0.1^\circ$		
74	*Pneum atie Measer ing Instru ment for Microm eters	Length	600638	V. R. fo Pneumatie Measering Instrument for Micrometers JJG 356	Resolut ion:0.5 μm (0~ 200) μm	$U=0.4\mu\text{m}$		
					Resolut ion:1 μm (0~ 200) μm	$U=0.5\mu\text{m}$		
					Resolut ion:2 μm (0~ 200) μm	$U=0.6\mu\text{m}$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
					Resolut ion:5μm (0~ 200) μm	$U=0.7\mu\text{m}$		
75	*Metal Detect or	Length	600620	C. S. for Metal Detector STJF 06	(0.8~ 350) mm	$U=1\text{mm}$		
76	Plug Socket Gauge	Length	600614	C. S. for Plug Socket Gauge STJF 1003	(0~ 150) mm	$U=0.01\text{mm}$		
		Angle	600614		(0~ 360) °	$U=0.1^\circ$		
77	Box Plates	Angle	600307	V. R. fo Box Plates JJG194	50mm× 50mm~ 300mm× 300mm	$U=2\mu\text{m}$		
		flatne ss	600307		50mm× 50mm~ 300mm× 300mm	$U=6\mu\text{m}$		
78	*Laser Diamet er Measur ing Gauges	Length	600620	C. S. for Laser Diameter Measuring Gauges JJF1250	(0~ 30) mm	$U=1.2\mu\text{m}$		
79	*Metal lurgic al Micros copy	Length	600120	Calibration Specification for Biological Microscopes JJF 1402	5X~ 100X	$U_{\text{rel}}=0.8\%$		
					(0~ 1) mm	$U=5\mu\text{m}$		
80	Extens ometer	Lenth	600648	Verification Regulation of Extensometer JJG762	(0~ 25) mm	$U=$ (1+0.3%H) μm		
81	π Pape	Length	600110	Calibration Specification for Pi Tapes JJF 1423	(0~ 1.5) m	$U=0.04\text{mm}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
82	*Inductive Micrometers	Length	600623	Calibration Specification for Inductive Micrometers JJF 1331	$\pm 1000 \mu\text{m}$	$U=(0.02\sim 1.4)\mu\text{m}$		
83	*Grating Micrometers	Length	600623	Calibration Specification for Grating Micrometers JJF 1682	(0~100)mm	$U=(0.25\sim 0.4)\mu\text{m}$		
84	*Capacitive Digital Scale Units	Length	600113	Calibration Specification for Capacitive Digital Scale Units JJF 1280	(0~1000)mm	$U=(0.01\sim 0.03)\text{mm}$		
85	The line displacement sensor	Length	600108	Calibration Specification for Linear Displacement Sensors JJF 1305	(0~1000)mm	$U=(0.01\sim 0.03)\text{mm}$		
86	*Rubber and Plastic Film Gage	Length	600635	Calibration Specification for Rubber and Plastic Film Gage JJF 1488	(0~30)mm	$U=(2\sim 12)\mu\text{m}$		
87	Tester for Dial Indicator Gauges	Length	600220	Verification Regulation of Tester For Dial Indicator Gauges JJG 201	(0~50)mm	$U=(0.3\sim 1.2)\mu\text{m}$		
88	*Combined Type Angle Rules	Angle	600312	Calibration Specification for Combined Type Angle Rules JJF 1132	(0~180)°	$U=3'$		
		Length	600312		(0~300)mm	$U=0.04\text{mm}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
89	*Water Drop Angle Measuring Instrument	Angle	600399	Calibration Specification for Water Drop Angle Measuring Instrument STJF1018	(5~165) °	$U=0.1^{\circ}$		
90	*Leather Area Measuring machine	Length	600636	Verification Regulation of Leather Area Measuring machine JJG 413	(0.25~1)m ²	$U=0.01\text{m}^2$		
91	*Rubber thickness tester	Length	600635	Calibration Specification for Rubber and Plastic Film Gage JJF 1488	(3~10)mm	$U=0.005\text{m}$		
		Quality	600635		(10~200)g	$U=0.3\text{g}$		
92	*Determination specific surface area of permeability apparatus	Lenth	700843	Verification Regulation of Determination specific surface area of permeability apparatus JJG (Building material) 167	(0~70) mm	$U=0.03\text{mm}$		
		Time	700843		(0~600) s	$U=0.4\text{s}$		
		Bulk	700843		(0~10) cm ³	$U=0.005\text{cm}^3$		
		specific surface area	700843		(3500~4000) cm ² /g	$U_{\text{rel}}=2\%$		
93	*the Liquid Level Measuring Devices	Length	620522	Verification Regulation of the Liquid Level Measuring Devices JJG 971	(0~2000)mm	$U=0.1\text{mm}$		
94	Drop floor	Length	600699	C.S. of Drop Test Floor STJF	(1~1000)mm	$U=0.1\text{mm}$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
		SHORE Hardne ss	620999	1030	(20~ 90)HA	$U=1.5HA$		
95	The small part test device	Length	600699	C .S. of Test Cylinder for Small Objects STJF 1035	(1~ 200)mm	$U=(0.01~0.03)mm$		
96	Joint type touch probe	Length	600699	C .S. of Articulated Probes STJF 1031	(1~ 200)mm	$U=(0.01~0.03)mm$		
97	Rattle Test Templa te	Length	600699	C .S. of Test Template STJF 1029	(1~ 200)mm	$U=(0.01~0.03)mm$		
98	Nipple test device	Length	600699	C .S. of Pacifier Tester STJF 1032	(0~ 100)mm	$U=(0.01~0.03)mm$		
		Angle	600699		(45±1) °	$U=0.4^{\circ}$		
99	Standa rd disk (head)	Length	600699	C .S. of Standard Disc(Pressure Head) STJF 1028	(0~ 20)mm	$U=(0.01~0.03)mm$		
100	*Tickn ess Tester for Paer and Board	Length	700402	V. R. for Tickness Tester for Paer and Board JJG(light industry) 50.1	(0~4) mm	$U=1.3\mu m$		
		Parall elism	700402		(0~5) μm	$U=0.5\mu m$		
101	*Tickn ess Tester for Corrug atde Fibrebo ard	Length	700403	V. R. of Tickness Tester for Corrugatde Fibreboard JJG(light industry) 50.2	(0~ 20) mm	$U=6\mu m$		
		Parall elism	700403		(0~5) μm	$U=1.2\mu m$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
102	*Tickness Tester for Alterable Compression	Length	700404	V. R. of Tickness Tester for Alterable Compression JJG(light industry) 50.3	(0~4) mm	$U=1.3\mu\text{m}$		
		Parallism	700404		(0~5) μm	$U=0.5\mu\text{m}$		
103	*Absorption Tester for Paper and Board	area	700407	V. R. of Absorption Tester for Paper and Board JJG(Light industry)55	(100±0.2) cm ²	$U=0.07\text{cm}^2$		
		Length	700407		(200±0.5) mm	$U=0.1\text{mm}$		
		Quality	700407		(10±0.5) kg	$U=0.1\text{kg}$		
104	*Beating Degree Tester for Puips	Time	700408	V. R. of Beating Degree Tester for Puips JJG(light industry) 53	(0~149) s	$U=0.2\text{s}$		
		Volume	700408		(7.5~8.0) ml	$U=0.2\text{ml}$		
105	*Electrical and electronic Burn Kindle Testers	Length	701024	C. S. for Burn Kindle Testers STJF1001	(0.1~600) mm	$U=0.02\text{mm}$		
		Angle	701024		(0~90) °	$U=0.15^\circ$		
		Time	701024		(0.01~3600) s	$U=0.07\text{s}$		
106	Bending tester	Length	600699	C. S. of Flexometer STJF 1037	(0~100) mm	$U=(0.01\sim0.03)\text{mm}$		
		Angle	600699		(120±1) °	$U=0.4^\circ$		
107	*Needle and Flake Gages	Length	700848	Calibration Specification for Needle and Flake Gages JJF 1593	(0~100) mm	$U=0.04\text{mm}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
108	Occlusometer	Length	600699	C.S. of Bite Tester STJF 1036	(0~100) mm	$U=0.05$ mm		
109	*cement Mortar specimen	Length	700809	Verification Regulation for cement Mortar specimen JJG (Building materials) 105	(0~300) mm	$U=(0.05\sim 0.08)$ mm		
		Angle	600303		(10° ~ 90°)	$U=0.2^\circ$		
		Mass	620199		(0.1~4000) g	$U=0.2$ g		
110	*Concrete Slump Test	Length	700812	Calibration Specification for Concrete Slump Test JJF (Zhe) 1093	(0~300) mm	$U=(0.05\sim 0.08)$ mm		
111	*Standard test pins, pins, fingers	Length	600699	Standard test pin, pin, finger calibration specifications STJF 1025	(0.1~300) mm	$U=(0.005+0.025L)$ mmL -m		Expansion
		Angle	600699		0.1° ~ 360°	$U=2'$		
		Force	600699		(0.1~60) N	$U_{rel}=2\%$		
112	*Break bar	Length	700899	Calibration specification for Digital Step Gauge JJF (ZHE) 1130	(-50~+50) mm	$U=0.01$ mm		Expansion
113	*Wet film thickness gauge	Length	600699	Calibration Specifications for Wet Film Thickness Gauges JJF 1484	(0~3000) μ m	梳规: $U=2.4\mu$ m		Expansion
		Length	600699		(0~3000) μ m	轮规: $U=0.8\mu$ m		
114	*Carbonation Depth Gauge	Length	600699	Calibration Specifications for Carbonization	Pointer display: (0~100) mm	$U=0.08$ mm		Expansion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	and Ruler			Depth Measuring Instruments and Calipers JJF 1721	Digital display : (0~100)mm	$U=0.02\text{mm}$		
115	*Electrolytic (Coulomb) Thickness Gauge	Length	600635	Calibration Specification for Electrolytic (Coulometric) Coating Thickness Instruments JJF 1707	(0.1~30) μm	$U_{\text{rel}}=7\%$		Expansion
116	*Coordinate Measuring Machine	Length	600601	C. S for Coordinate Measuring Machine JJF 1064	X: (0~1000)mm, Y: (0~1000)mm, Z: (0~800)mm	$U=(1.5+6L)\mu\text{m}$ L:m (Lenth), $U=0.5\mu\text{m}$ (Probe error)		Change
117	Fiber Tapes And Measuring Ropes	Length	600110	Fiber Tapes And Measuring Ropes JJG 5	(0~50) m	$U=0.2\text{mm}+2\times 10^{-7}L$		Expansion
118	*Cable Length Meter	Length	600117	Cable Length Meter JJG 987	(0.1~5000)m	$U_{\text{rel}}=0.2\%$		Expansion
					Φ (90~300) mm	$U=0.4\text{mm}$		
119	Cylindrical Thread Gaugs	Pitch diameter	600612	C. s for Cylindrical Thread Gaugs JJF 1345	M (5~200)mm	$U=3\mu\text{m}\sim 5\mu\text{m}$		Change
120	*Apparatus Determining Penetration	Length	700850	C. S. for Apparatus	(0~100)mm	$U=(0.01\sim 0.02)\text{mm}$		Change
		Angle	700850	Determining Penetration of	$0^{\circ}\sim 100^{\circ}$	$U=10'$		
		Mass	700850	Bituminous Materlals	(0~3000)g	$U=0.03\text{g}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	of Bituminous Materials			JJF1208				
121	*Water splash ing Tester	Length	6099	Specifications for calibration of water splash testers STJF1019	(0~300)mm	$U=0.02\text{mm}$		Change
		Angle	6099		$(45\pm 1)^\circ$	$U=0.3^\circ$		
		Time	6099		(0~100) s	$U=0.1\text{s}$		
二、Thermology								
1	*Open/Closed Cup Flash Point Testers	Temperature	681007	Calibration Specification for Open/Closed Cup Flash Point Testers JJF 1384	(70~220) °C	$U=(3.5\sim 8.0)^\circ\text{C}$		
2	*Dust and Sand Testing Equipments	temperature	610312	Calibration Specification for Dust and Sand Testing Equipments JJF (Military) 18	(5~95) °C	$U=(0.3\sim 0.4)^\circ\text{C}$		
		Humidity	610312		10%RH~30%RH	$U=3\%\text{RH}$		
		air speed	610312		(1.5~29)m/s	$U=(0.2\sim 1)\text{m/s}$		
		rate of sand sedimentation	610312		6g/(m ² .d)	$U=0.3\text{g}/(\text{m}^2.\text{d})$		
3	Thermal Imagers	Radiation temperature	610508	Calibration Specification for Thermal Imagers JJF 1187	(50~500) °C	$U=(0.7\sim 2.5)^\circ\text{C}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
4	Temperature Indicators and Simulators by Electrical Simulation and Measurement	Temperature	610201	Calibration Specification of Temperature Indicators and Simulators by Electrical Simulation and Measurement JJF 1309	TC Measurement: (-50~1300) °C	$U=(0.2\sim 0.5)^{\circ}\text{C}$		
					RTD Measurement: (-50~800) °C	$U=(0.2\sim 0.4)^{\circ}\text{C}$		
					TC Output: (-50~700) °C	$U=(0.2\sim 0.5)^{\circ}\text{C}$		
					RTD Output: (-50~700) °C	$U=(0.1\sim 0.4)^{\circ}\text{C}$		
5	*Equipment of the Environmental Testing	Temperature	610305	Calibration Specification for the Equipment of the Environmental Testing for Temperature and Humidity JJF 1101	(-40~0) °C	$U=(0.4\sim 0.3)^{\circ}\text{C}$		Change
		Humidity	610305		(0~300) °C	$U=(0.3\sim 0.5)^{\circ}\text{C}$		
					10%RH~95%RH	$U=3\%\text{RH}$		
6	Temperature Itinerant Detecting Instrument	Temperature	610204	Calibration Specification for Temperature circuit tester JJF 1171	(-30~300) °C	$U=0.20^{\circ}\text{C}$		
7	*Salt mist	Temperature	610311	Calibration Specification	(30~60) °C	$U=0.3^{\circ}\text{C}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	testing chambers	salt mist rate	610310	for salt mist testing chambers JJF (liao) 75	(1.0~2.0) mL/(h.80cm ²)	$U=0.6\text{mL}/(\text{h.}80\text{cm}^2)$		
8	Mechanical Thermo-hygrometers	Temperature	610603	Verification Regulation of Mechanical Thermo-hygrometers JJG 205	(15~30) °C	$U=(0.3\sim 0.5)^\circ\text{C}$		
		Humidity	610603		40%RH~80%RH	$U=3\%\text{RH}$		
9	Working Radiation Thermometers	Radiation temperature	610505	Verification Regulation of radiation Thermometers JJG 856	(50~500) °C	$U=(0.6\sim 2.2)^\circ\text{C}$		
					(500~1200) °C	$U=(5\sim 7)^\circ\text{C}$		
10	Liquid-in Glass Thermometer for working	Temperature	610113	Verification Regulation of Liquid-in Glass Thermometers for working JJG 130	(-30~300) °C	$U=(0.10\sim 0.15)^\circ\text{C}$		
11	*Reorders for Industrial-Process Measurement	Temperature	610203	Verification Regulation of the Reorders for Industrial-Process Measurement JJG 74	(-200~0) °C	$U=(0.8\sim 0.3)^\circ\text{C}$		
					(0~1370) °C	$U=(0.3\sim 1.3)^\circ\text{C}$		
12	*Box-type resistance furnace	Temperature	610308	Calibration Specification for Box-type Resistance Furnace JJF 1376	(300~1000) °C	$U=(2.5\sim 4.2)^\circ\text{C}$		
13	*Rubber disc	Temperature	610115	Verification Regulation of	(100~200) °C	$U=(0.3\sim 1.3)^\circ\text{C}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	oscillating rheometer	Angle	610115	Rubber disc oscillating rheometer JJG(chemical industry) 101	$-3^{\circ} \sim 3^{\circ}$	$U=0.2^{\circ}$		
		Torque	610115		(10~100)N.m	$U_{rel}=1.3\%$		
14	Digital Thermo-hygrometers	Temperature	610603	Digital Thermo-hygrometers JJG(yue) 047	(15~30)°C	$U=(0.3 \sim 0.5)^{\circ}\text{C}$		
		Humidity	610603		40%RH~80%RH	$U=3\%RH$		
15	*Thermometers of clinic autoclave	Temperature	610310	C.S. for Thermometers of Clinic Autoclave JJF 1308	(50~140)°C	$U=0.3^{\circ}\text{C}$		
16	Industry Platinum Resistance Thermometers	Temperature	610110	Industry Platinum and Copper Resistance Thermometers JJG 229	(-30~100)°C	$U=0.02^{\circ}\text{C}$		
					(100~300)°C	$U=0.05^{\circ}\text{C}$		
17	*Melting-point Measurement Instruments	Melting-point	030507	Melting-point Measurement Instruments JJG 701	(50~300)°C	$U=0.3^{\circ}\text{C}$		
18	*The Temperature Block Calibrators	Temperature	610303	Calibration Guideline of the Temperature Block Calibrators JJF 1257	(-50~400)°C	$U=(0.3 \sim 0.5)^{\circ}\text{C}$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
19	Temper ature Transm aitter	Temper ature	610210	Calibration Specification of the Temperature Transmaitter JJF 1183	(-30~ 300) °C	$U=(0.3\sim0.5)^\circ\text{C}$		
20	Temper ature Data Acquis ition Instru ments	Temper ature	610203	Calibration Specification of Temperature Data Acquisition Instruments JJF 1366	(-30~ 300) °C	$U=(0.3\sim0.5)^\circ\text{C}$	Except for sensor inside type	
21	Thermo meters of WBGt-i ndex Meters	Temper ature	610603	Calibration Specification for Thermometers of WBGt-index Meters JJF 1407	(60~ 120) °C	$U=0.3^\circ\text{C}$		
22	*Boili ng tesing box for soundn ess of the portla nd cement	Temper ature	700831	V. R. of Boiling tesing box for soundness of the portland cement JJG (Building) 109	(30~ 100) °C	$U=0.3^\circ\text{C}$		
23	*Eight -baske t Oven	Temper ature	700121	C. S. for Eight-basket Oven JJF (Textile) 011	(50~ 300) °C	$U=0.3^\circ\text{C}$		
24	Surfac e thermo meter	Temper ature	610118	Calibration Specification for the Surface Thermometers JJF 1409	(50~ 400) °C	$U=(0.8\sim1.4)^\circ\text{C}$		Expans ion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
25	*Differential scanning calorimeter	Temperature	681003	Verification Regulation of Differential Scanning Calorimeters JJG 936	(30~575) °C	$U=(0.7\sim 1.2)^\circ\text{C}$		Expansion
		Calories	681003		(23~107.6) J/g	$U_{\text{rel}}=1.2\%\sim 1.8\%$		
26	*Thermogravimetric analyzer	Temperature	681013	Verification Regulation of Thermogravimetric Analyzers JJG 1135	(150~800) °C	$U=(0.8\sim 2.1)^\circ\text{C}$		Expansion
		Mass	681013		(0~20) mg	$U=(0.008\sim 0.012)\text{mg}$		
27	Temperature and humidity recorder	Temperature	610603	Calibration Specification of the Data Logger for Temperature and Humidity JJF(浙)1049	(15~30) °C	$U=0.5^\circ\text{C}$		Expansion
		Humidity	610603		40%RH~80%RH	$U=(1.6\sim 2.3)\%RH$		
28	*Steam sterilizer	Temperature	610603	Calibration Specification for Temperature and Pressure of Steam Sterilizer JJF(浙)1120	(55~130) °C	$U=0.2^\circ\text{C}$		Expansion
		Pressure	610310		(0~500) kPa	$U=2.0\text{kPa}$		
29	*Microwave digestion apparatus	Temperature	650109	Calibration Specification for Microwave digestion Instrument JJF(蒙)030	(80~160) °C	$U=(0.6\sim 0.9)^\circ\text{C}$		Expansion
30	*Ventilation Aging Test Chamber	Temperature	610314	Calibration Specification of Air Thermal Aging Test Oven JJF(蒙)038	(15~300) °C	$U=(0.3\sim 0.6)^\circ\text{C}$		Expansion
		Ventilation times	610314		(1~200) second/h	$U_{\text{rel}}=2\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
31	*PCR Apparatus	Temperature	680906	Calibration Specification for Polymerase Chain Reaction Analyzers JJF1527	(15~105) °C	$U=0.4^{\circ}\text{C}$		Expansion
32	*Electric water bath	Temperature	610309	Calibration Specification of Electrically-heated Thermostatic Water bath JJF (辽) 118	(0~100) °C	$U=(0.17\sim 0.24)^{\circ}\text{C}$		Expansion
33	* Bomb calorimeter	Calorific value	681001	Verification Regulation of Bomb Calorimeters JJG 672	(26430 ~ 26490) J/g	$U=39\text{J/g}$		Expansion
34	Thermal Conductivity Tester of guarded hot plate	Thermal conductivity	6199	Calibration Specification for Thermal Conductivity Tester of guarded hot plate JJF(浙)1141	0.0328W/(m.K)	$U_{\text{rel}}=1\%$		Expansion
35	Temperature Switches	Temperature	42201	Calibration Specification for Temperature Parameter of Temperature Switches JJF 1632	(-30~300) °C	$U=0.4^{\circ}\text{C}$		Expansion
36	Sheathed Thermocouple	Temperature	610109	Calibration Specification for Sheathed Thermocouples	(-30~300) °C	$U=(0.3\sim 0.4)^{\circ}\text{C}$		Expansion
					(300~1100) °C	$U=(0.7\sim 0.9)^{\circ}\text{C}$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
				JJF1262				
37	*Digit al Temper ature Indica tors and Contro llers	Temper ature	610119	Verification Regulation of Digital Temperature Indicators and Controllers JJG 617	(-200~ 0) °C	$U=(0.7\sim$ $0.2)^\circ\text{C}$		Expans ion
					(0~ 1800) °C	$U=(0.2\sim$ $1.0)^\circ\text{C}$		
38	*Therm ostati c bath	Temper ature	610302	Calibration Specification for Measurement and test Norm of Thermostatic Bath's Metrological Characteristic s JJF 1030	(-80~ 300) °C	$U=0.020^\circ\text{C}$		Expans ion
39	*Bimet allic Thermo meters	Temper ature	600116	Verification Regulation of Bimetallic Thermometers JJG 226	(-30~ 300) °C	$U=0.5^\circ\text{C}$		Expans ion
					(300~ 500) °C	$U=0.9^\circ\text{C}$		
40	*Tempe rature , humidi ty, vibrat ion test chambe r	Temper ature	610305	Calibration Specification for Temperature, humidity, vibration combined environmental testing system JJF 1270	(-40~ 0) °C	$U=(0.4\sim$ $0.3)^\circ\text{C}$		Expans ion
		Humidi ty	610305		(0~ 200) °C	$U=(0.3\sim$ $0.5)^\circ\text{C}$		
			610305		30%RH~ 95%RH	$U=3.3\%RH$		
		Accele ration	610305		(1~ 100)m/s ²	$U_{rel}=3\%$		
41	Base Metal	Temper ature	610106	Calibration Specification	(-30~ 300) °C	$U=(0.3\sim 0.4)$ $^\circ\text{C}$		Expans ion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Thermocouples			for Base Metal Thermocouples JJF 1637	(300~1100) °C	$U=(0.7\sim 0.9)^\circ\text{C}$		
三、Mechanics								
1	Film hardness of pencil Scratch Test	Mass	620999	Calibration Specification for Pencil Hardness Testers JJF(shihua)007	(50~1000) g	$U=(0.20\sim 0.50)\text{g}$		
		Angle	620999		(40~50) °	$U=0.3^\circ$		
2	Screen tension meter	Tension	620724	Calibration Specification for Screen tension meter JJF1465	(7~50)N/cm	$U=(0.08\sim 1.5)\text{N/cm}$		
3	*Tape wear tester	Mass	620718	Calibration Specification for Tape wear tester STJF1009	(55~275) g	$U=(0.20\sim 0.52)\text{g}$		
		Rotate Speed	620718		(10~60) r/min	$U=0.8\text{ r/min}$		
4	Pressure Transducer	Pressure	620510	Verification Regulation of Pressure Transducer (Static) JJG860	(0.1~60) MPa	$U=0.10\%\text{FS}$		
					(-0.1~0.1) MPa	$U=0.13\%\text{FS}$		
5	Elastic Element Precise Pressure Gauges and Vacuum Gauges	Pressure	620502	Verification Regulation of Elastic Element Precise Pressure Gauges and Vacuum Gauges JJG49	(0.1~6) MPa	$U=0.07\%\text{FS}$		
					(6~60) MPa	$U=0.07\%\text{FS}$		
					(-0.1~0.1) MPa	$U=0.08\%\text{FS}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
6	Electronic Universal Testing Machine	Force	620711	Verification Regulation of Electronic Universal Testing Machine JJG475	20N~2000kN	$U_{rel}=0.40\%$		
		Speed	620711		(5~1000)mm/min	$U_{rel}=0.13\%$		
		Length	620711		(5~1000)mm	$U_{rel}=0.13\%$		
7	*Metallic Brinell Hardness Testers	Force	620901	Verification Regulation of Metallic Brinell Hardness Testers JJG150	5N~50kN	$U_{rel}=0.40\%$		
		Hardness	620901		(8~125)HBW	$U_{rel}=1.6\%$		
					(125~225)HBW	$U_{rel}=1.6\%$		
					(225~650)HBW	$U_{rel}=1.6\%$		
8	Elastic Element Pressure Gauges, Pressure-Vacuum Gauges and Vacuum Gauge for General Use	Pressure	620503	Verification Regulation of Elastic Element Pressure Gauges, Pressure-Vacuum Gauges and Vacuum Gauge for General Use JJG52	(-0.1~60)MPa	$U=0.26\%FS$		
9	Tension, Compression and Universal	Force	620711	Verification Regulation of Tension, Compression and Universal Testing Machine JJG139	20N~2000kN	$U_{rel}=0.40\%$		
		Length	620711		(5~1000)mm	$U_{rel}=0.13\%$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
	Testin g Machin e							
10	Digita l Pressu re Gauge	Pressu re	620504	Verification Regulation of Digital Pressure Gauge JJG875	(0.1~ 60)MPa	$U=0.06\%FS$		Change
					(-0.1~ 0.1)MPa	$U=0.08\%FS$		
11	Weight s	Mass	620101	Verification Regulation of Weights JJG99	(1~ 500)mg	$U=(0.012\sim$ $0.024)mg$		
					(1~ 500)g	$U=(0.03\sim$ $16)mg$		
					(1~ 30)kg			
12	*Metal lic Rockwe ll Hardne ss Testin g Machin es	Force	620904	Verification Regulation of Metallic Rockwell Hardness Testing Machines (Scales A, B, C, D, E, F, G, H, K, N, T) JJG112	10N~ 2kN	$U_{rel}=0.40\%$		
		Hardne ss	620904		(80~ 88)HRA	$U=0.5HRA$		
					(85~ 100)HRB	$U=0.5HRB$		
					(20~ 70)HRC	$U=0.5HRC$		
					(70~ 91)HR15 N	$U=0.6HR$		
					(42~ 80)HR30 N	$U=0.6HR$		
					(20~ 70)HR45 N	$U=0.6HR$		
					(73~ 93)HR15 T	$U=1.0HR$		
					(43~ 82)HR30 T	$U=1.0HR$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
13	Metallic Vickers Hardness Testers	Force	620914	Verification Regulation of Metallic Vickers Hardness Testers JJG151	(5~1000)N	$U_{rel}=0.40\%$		
		Hardness	620914		Micro and Small Test Leviathan Hardness: (100~800)HV	$U_{rel}=4.5\%$		
					Vickers Hardness: (700~800) HV	$U_{rel}=1.8\%$		
14	Mud Density Meter	Density	700811	Verification Regulation of Mud Density Meter JJG 1045	(0.960 ~ 3.000) g/cm ³	$U=0.004g/cm^3$		
15	Le Chatelier Flask of Determining Density of Hydraulic Cement	Capacity	620299	Verification Regulation of Le Chatelier Flask for Determining Density of Hydraulic Cement JJG(jiaotong) 092	(1~24) ml	$U_{rel}=1.5\%$		
16	*weighing apparatus	Mass	620112	Verification Regulation of Digital Indicating Weighing Instrument JJG 539	(0.2~60)kg	$U=(0.03~5)g$		
					(60~300) kg	$U=(5~15)g$		
					(300~2000) kg	$U=(0.015~0.15)kg$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
17	*Pendulum Impact Testing Machine	Energy	621019	Verification Regulation of Pendulum Impact Testing Machine JJG 145	(0.5~350) J	$U=2.2\%K_R$		
18	*Cantilever-Beam (Izod-Type) Impact Testing Machine	Energy	621019	Verification Regulation of Cantilever-Beam (Izod-Type) Impact Testing Machine JJG 608	(1~100) J	$U_{rel}=0.44\%$		
		Length	621019		(100~1000) mm	$U_{rel}=0.3\%$		
19	*Flexure Testing Machine	Force	620713	Verification Regulation of Flexure Testing Machine JJG 476	20N~60kN	$U_{rel}=0.40\%$		
20	*Working Force Measuring Machines for Special Purpose	Force	620707	Working Force Measuring Machines for Special Purposes JJF1134	10N~50kN	$U_{rel}=0.40\%$		
21	*Torque Wrenches	Torque	620805	Verification Regulation of Torque Wrenches JJG 707	(1~200) Nm	$U_{rel}=1.3\%$		
					(>200~1000) Nm	$U_{rel}=1.2\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
22	*Metallic Webster Hardness Testing Machines	Hardness	620909	Verification Regulation of Metallic Webster Hardness Testing Machines JJG 944	(5~18)HW	$U=0.3HW$		
23	*Equotip Hardness tester	Hardness	620910	Verification Regulation of Equotip Hardness tester JJG 747	(750~830)HLD	$U=5HLD$		
					(510~670)HLD	$U=4HLD$		
24	*Shore A Durometer	Length	620916	Verification Regulation of Shore A Durometer JJG 304	2.5mm	$U=0.005m$		
		Force	620916		(0.05~10)N	$U=0.03N$		
25	*electronic Balances	Mass	620105	Verification Regulation of Electron balance JJG 1036	(10~1000)mg	$U=(0.022~0.05)mg$		
					(>1~1000)g	$U=(0.06~2.0)mg$		
					(>1~2)kg	$U=(2.2~3.5)mg$		
					(>2~30)kg	$U=15mg~0.19g$		
					(>30~100)kg	$U=(0.5~5)g$		
26	*Tachometers	Rotational Speed	621102	Verification Regulation of Tachometers JJG 105	(30~10000)r/min	$U_{rel}=0.062\%$		
					(>10000~20000)r/min	$U_{rel}=0.057\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
27	Working Glass Hydrometers	Density	620202	Verification Regulation of Working class Glass Hydrometers JJG 42	(800~1400) g/m ³	$U=0.30\text{kg/m}^3$		
28	*Work dynamometer	Force	620707	Verification Regulation of Working dynamometer JJG 455	(2~200) N	$U_{\text{rel}}=0.40\%$		
					(0.2~20) kN	$U_{\text{rel}}=0.40\%$		
					(20~2000) kN	$U_{\text{rel}}=0.39\%$		
29	*Rack pan balance	Mass	620109	Verification Regulation of Table balances JJG 156	(1~200) g	$U=0.04\text{g}$		
					(>0.2~0.5) kg	$U=0.10\text{g}$		
					(>0.5~1) kg	$U=0.20\text{g}$		
30	*Mechanical analytical balance	Mass	620104	Verification Regulation of Mechanical balance JJG 98	(1~500) mg	$U=0.08\text{mg}$		Change
					(>0.5~20) g	$U=0.20\text{mg}$		
					(>20~200) g	$U=0.5\text{mg}$		
31	*Shore D Durometer	Length	620916	Verification Regulation of Shore D Durometer JJG1039	1.25mm	$U=0.03\text{mm}$		
		Force	620916		(0~44.5) N	$U=0.09\text{N}$		
32	*Trye Pressure Gauges	Pressure	620502	Verification Regulation of Trye Pressure Gauges JJG 927	(0~2.5) MPa	$U=0.4\%\text{FS}$		
33	*Shore A0	Length	620916	Calibration Specification	(0~20) mm	$U=0.004\text{m}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Durometer	Force	620916	for Shore A0 Durometer JJF1312	(0~8)N	$U=0.013N$		
34	*Calibration Instrument for Torque Wrenches	Torque	620803	Verification Regulation of Calibration Instrument for Torque Wrenches JJG 797	(0.2~100)Nm	$U_{rel}=0.4\%$		
35	Spring Impact or Hammer	Energy	621099	Calibration Specification for Spring Impactor Hammer JJF1475	(0.1~1)J	$U_{rel}=3\%$		
36	*Torsion Testing Machines	Torque	620806	Verification Regulation of Torsion Testing Machines JJG 269	(2~200) Nm	$U_{rel}=0.4\%$		
37	*Electro-hydraulic Servo Universal Testing Machines	Force	620711	Verification Regulation of Electro-hydraulic Servo Universal Testing Machines JJG1063	(2~2000) kN	$U_{rel}=0.4\%$		
38	*Equipment of Power Measuring	Rotational Speed	620809	Verification Regulation of Equipment of Power Measuring JJG 653	(30~20000) r/min	$U_{rel}=0.18\%$		
		Torque	620809		(1~1000) N.m	$U_{rel}=0.4\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
39	*The Automobile Braking Force Meter	Force	620707	Calibration Specification for The Automobile Braking Force Meter JJF 1169	(100~1000)N	$U_{rel}=0.4\%$		
40	*Wire Swing Test Machine	Mass	701023	Verification Regulation of Wire Bend Test Machine JJG(Yue) 022	(5~500)g	$U=0.2g$		
		Rotational Speed	701023		(10~80)r/min	$U=0.3r/min$		
		Angle	701023		(0~360)°	$U=0.5^\circ$		
41	*Barcol Impressor	Hardness	620921	Verification Regulation of Barcol Impressor JJG610	(42~88)HBa	$U=0.6HBa$		
42	*Pressure Transmitter	Pressure	620512	Verification Regulation of Pressure Transmitter JJG882	(-0.1~0.1) MPa	$U=0.12\%FS$		Change
					(0.1~60) MPa	$U=0.08\%FS$		
43	*Tacho-Torque Measuring Device	Torque	620607	Verification Regulation of Tacho-Torque Measuring Device JJG924	(10~200)Nm	$U_{rel}=0.5\%$		
		Rotational speed	620607		(30~10000) r/min	$U_{rel}=0.3\%$		
44	*Rubber Mooney Viscometer	Temperature	700702	Verification Regulation of Rubber Mooney Viscometer JJG(chemical industry) 102	(10~300)°C	$U=0.3^\circ C$		
		Force	700702		(5~15)kN	$U_{rel}=0.4\%$		
		Tacho	700702		(1~3)r/min	$U_{rel}=0.2\%$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
		Mooney	700702		(100~ 200) Mooney	$U_{rel}=1.4\%$		
45	* Centri fugal Machin e	Rotati onal speed	621112	Verification Regulation of Constant Acceleration Centrifugal Test Machine JJG 972	(1~ 30000) r /min	$U_{rel}=0.3\%$		
46	*Plast ic Rock Well Hardne ss Testin g Machin e	Force	620908	Verification Regulation of Plastic Rock Well Hardness Testing Machine JJG884	(0.05~ 2)kN	$U_{rel}=0.40\%$		
		Hardne ss	620908		(114~ 125)HRR	$U=0.9HRR$		
					(70~ 94)HRE	$U=1.0HRE$		
					(100~ 120)HRL	$U=0.9HRL$		
47	*Analo gue Indica ting Weigh ing Instru ment	Mass	620113	Verification Regulation of Analogue Indicating Weighing Instrument JJG 13	(0.2~ 60)kg	$U=(0.4~21)g$		
					>60kg~ 300kg	$U=(0.021~0.042)kg$		
					>300kg ~ 2000kg	$U=(0.042~0.16)kg$		
48	*Nonse lf-ind icatin g Weigh ing Instru ment	Mass	620110	Verification Regulation of Nonself-indica ting Weighing Instrument JJG 14	(3~ 500)kg	$U=(0.014~0.054)kg$		
					>500kg ~ 2000kg	$U=(0.054~0.19)kg$		
49	*Buoy Tyepe	Pressu re	620519	Verification Regulation of	(0~ 15) MPa	$U=0.9\%FS$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Oxygen Inhalator	Flow	620519	Buoy Type Oxygen Inhalator JJG 913	(0~10) L/min	$U=1.0\%FS$		
50	*Zipper Closed Gently Slip Testers	Force	030101	Calibration Specification for Zipper Closed Gently Slip Testers JJF (zhe) 1114	(0~20) N	$U=0.1N$		
		Speed	030101		(1000~1500) mm/min	$U=10mm/min$		
		Length	030101		(20~40) mm	$U=0.3mm$		
51	*MIT Type Folding Edurance Tester	Tension	700414	Verification Regulation of MIT Type Folding Edurance Tester JJG (light industry) 59	(0~14.7) N	$U=0.1N$		
		Angel	700414		(0~360) °	$U=0.5°$		
		Fold Speed	700414		(0~200) min ⁻¹	$U=1min^{-1}$		
52	*Pointer Type Micro-differential Pressure Gauge	Pressure	620516	Verification Regulation of Pointer Type Micro-differential Pressure Gauge JJG(Yue)020	(-30~30) kPa	$U=0.8\%FS$		
53	Precision Liquid Manometer for Cistern and U-tub	Pressure	620515	Verification Regulation of Precision Liquid Manometer for Cistern and U-tub JJG 241	(-8~8) kPa	$U=0.1\%FS$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
54	Pressure Type SF6 Gas Density Monitors	Pressure	620503	Verification Regulation of Pressure Type SF6 Gas Density Monitors JJG 1073	(-0.1~0.9)MPa	U=0.3%FS		
55	*Interface Tensiometers	Tension	104206	Calibration Specification for Interface Tensiometers JJF1464	(5~100)mN/m	U=0.14mN/m		
56	*Hydraulic Jacks	Force	620720	Verification Regulation of Hydraulic Jacks JJG 621	(20~2000)kN	U _{rel} =0.40%		
57	*Portable Rockwell Hardness Testers	Hardness	620904	Calibration Specification for Portable Rockwell Hardness Testers JJF1594	(20~88)HRA	U=0.7HRA		
					(20~100)HRB	U=0.7HRB		
					(20~70)HRC	U=0.7HRC		
					(70~91)HR15N	U=1.0HR		
					(42~80)HR30N	U=1.0HR		
					(20~70)HR45N	U=1.0HR		
					(73~93)HR15TW	U=1.0HR		
					(43~82)HR30TW	U=1.0HR		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
					(12~ 72)HR45 TW	$U=1.0HR$		
58	*Porta ble Brinel l Hardne ss Tasers	Hardne ss	620901	Calibration Specification for Portable Brinell Hardness Tasers JJF1595	(75~ 400)HBW	$U_{rel}=1.6\%$		
59	*Texti le specia l washin g machin e	Rotati onal speed	700199	Calibration Specification for Textile special washing machine STJF1021	(50~ 2000) r/min	$U=(0.5\sim 2)r/min$		
		Temper ature	700199		(20~ 100) °C	$U=0.3^{\circ}C$		
		Time	700199		(1~ 60) min	$U=2s$		
60	*Press ure Contro llers	Pressu re	620511	Verification Regulation of Pressure Controllers JJG544	(-0.1~ 60)Mpa	$U=0.3\%FS$		
61	*Medic al centrif uge	Rotate Speed	621112	CaIibration Specification for Medical centrifuge JJF (zhe) 1117	(100~ 30000)r /min	$U_{rel}=0.3\%$		
62	Ralati ve Densit y Balanc e for Liquid	Relati ve Densit y	620107	Verification Regulation of Ralative Density Balance for Liquid JJG171	0~ 2.0000	$U=0.0006$		
63	*Cemen t Finene ss	Pressu re	700830	C. S. of Calibration Specification of Cement	(-6000 ~ -4000)P a	$U=90Pa$		Change

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Negative Pressure Screen Analyzers	Rotate Speed	700830	Fineness Negative Pressure Screen Analyzers JJF1827	(10~50) r/min	$U_{rel}=0.3\%$		
64	Locomotive Pipette	Volume	620305	V. R. of Locomotive Pipette JJG 646	(5~300) μ L	$U=0.7\mu$ L		Expansion
					(>300~1000) μ L	$U=2\mu$ L		
					(>1000~2500) μ L	$U=4\mu$ L		
					(>2500~5000) μ L	$U=7\mu$ L		
					(>5000~10000) μ L	$U=10\mu$ L		
					>10mL~200mL	$U_{rel}=0.12\%$		
65	Working Glass Container	Volume	620302	V. R. of Working Glass Container JJG 196	(0.1~1)mL	$U=0.002$ mL		
					(>1~10)mL	$U=0.004$ mL		
					(>10~20)mL	$U=0.007$ mL		
					(>20~100)mL	$U=0.028$ mL		
					(>100~200)mL	$U=0.04$ mL		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(> 200~500)mL	$U=0.07\text{mL}$		
					(> 500~1000)mL	$U=0.12\text{mL}$		
					(> 1000~2000)mL	$U=0.17\text{mL}$		
66	*Pendulum hardness of paint film	Time	620999	C. S. for Pendulum hardness of paint film STJF034	(1~60) s	$U=0.4\text{s}$		
		Mass	620999		(1~1200) g	$U=(0.1\sim 5)\text{g}$		
		Length	620999		(0~500) mm	$U=(0.01\sim 0.05)\text{mm}$		
67	Sharp-edge tester	Length	620799	C. S. of Toy Sharp-edge tester STJF 1034	(1~10) mm	$U=0.01\text{mm}$		Change
		Force	620799		(4~5) N	$U=0.1\text{N}$		
68	*Electric and Pneumatic Torque Wrenches	Torque	620805	Calibration Specification for Electric and Pneumatic Torque Wrenches JJF 1610	(0.5~100) Nm	$U_{\text{rel}}=1.3\%$		Expansion
69	* Film Impact Testers	Mass	030106	Calibration Specification for Film Impact Testers JJF (Petrifaction) 002	(0~2000) g	$U=0.3\text{g}$		Expansion
		Scale	030106		(0~600) mm	$U=0.20\text{mm}$		
70	* Static Cone Penetrometers	Force	620799	Calibration Specification for Static Cone Penetrometers JJF 1439	(0.1~50) kN	$U_{\text{rel}}=0.4\%$		Expansion
		Pressure	620799		(-0.1~1.6) MPa	$U=0.004\text{MPa}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
71	*Cupping Testing Machine	Force	620717	Verification Regulation of Cupping Testing Machine JJG583	(1~10) kN	$U_{rel}=0.5\%$		Expansion
		Size	620717		(0.5~70) mm	$U=0.04mm$		
		Cupping value	620717		(0~16) mm	$U=0.01mm$		
72	Elevator Overspeed Governor Testers	Speed	031922	Calibration Specification for Elevator Overspeed Governor Testers JJF1374	(0.5~10) m/s	$U_{rel}=0.4\%$		Expansion
73	Piezoelectric Accelerometer	Acceleration	621004	Verification Regulation of Piezoelectric Accelerometer JJG 233	(0.1~10) m/s^2 (20 Hz~200Hz)	$U_{rel}=2.0\%$		Expansion
74	Float Meter	Flow	620409	Verification Regulation of Float Meter JJG257	Liquid: (0.3~123) m^3/h (DN15~DN50)	$U=0.3\%FS$		Expansion
					Gas: (0.002~12) m^3/h (DN2~DN25)	$U=0.3\%FS$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
75	Reference Leaks by Soap Film Flowmeter	Flow	620608	Calibration Specification for Reference Leaks by Soap Film Flowmeter JJF1627	(0.006~6) L/min	$U_{rel}=1.7\%$		Expansion
76	Electromagnetic Flowmeters	Flow	620414	Verification Regulation of Electromagnetic Flowmeters JJG1033	(0.3~123) m ³ /h (DN 25~DN100)	$U_{rel}=0.3\%$		Expansion
77	Vortex-shedding Flowmeter	Flow	620419	Verification Regulation of Vortex-shedding Flowmeter JJG 1029	Liquid: (0.3~123) m ³ /h (DN 25~DN100)	$U_{rel}=0.3\%$		Expansion
		Flow	620419		Gas: (0.002~12) m ³ /h (DN 2~DN25)	$U_{rel}=0.3\%$		
78	Mass Flowmeter	Flow	620410	Verification Regulation of Mass Flowmeters JJG 897	Liquid: (0.3~123) m ³ /h (DN 25~DN100)	$U_{rel}=0.3\%$		Expansion
79	Turbine Flowmeter	Flow	620412	Verification Regulation of Turbine Flowmeter JJG1037	Liquid: (0.3~123) m ³ /h (DN 25~DN100)	$U_{rel}=0.3\%$		Expansion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Flow	620412		Gas: (0.002~12) m ³ /h (DN2~DN25)	$U_{rel}=0.3\%$		
80	Ultrasonic Flowmeters	Flow	620420	Verification Regulation of Ultrasonic Flowmeters JJG1030	Liquid: (0.2~123) m ³ /h (DN25~DN100)	$U_{rel}=0.3\%$		Expansion
81	Gas Displacement Meters	Flow	620406	Verification Regulation for Gas Displacement Meters JJG633	(0.002~12) m ³ /h (DN2~DN25)	$U_{rel}=0.3\%$		Expansion
82	*Electrodynamics Vibration Testing Systems	Acceleration	621008	Verification Regulation of Electrodynamic Vibration Testing Systems JJG948	(2~100) m/s ² (20 Hz~2000Hz)	$U_{rel}=3\%$		Expansion
		Frequency	621008		(20~2000) Hz	$U_{rel}=0.03\%$		
		Homogeneity	621008		1%~50%	$U_{rel}=3\%$		
		Distortion	621008		0.01%~100%	$U_{rel}=2\%$		
83	*Mechanical Vibration Generator for Testing	Acceleration	621008	Verification Regulation of Mechanical Vibration Generator for Testing JJG189	(2~100) m/s ² (20 Hz~2000Hz)	$U_{rel}=3\%$		Expansion
		Frequency	621008		(20~2000) Hz	$U_{rel}=0.03\%$		
		Homogeneity	621008		1%~50%	$U_{rel}=3\%$		
		Distortion	621008		0.01%~100%	$U_{rel}=2\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
84	Sharp Edge Tester	Force	620799	Calibration Specification of Sharp Edge Tester STJF1033	(1~10) N	$U_{rel}=0.4\%$		Expansion
		Length	620799		(0~10) mm	$U=0.03\text{mm}$		
		Roughness	620799		Ra (0~0.4) μm	$U=0.1\mu\text{m}$		
		Speed	620799		(0~40) mm/s	$U=0.5\text{mm/s}$		
		Hardness	620799		(1~60) HR	$U=1.5\text{HR}$		
四、Electromagnetism								
1	*Earth Resistance Meters	Resistance	640310	Verification Regulation of Earth Resistance Meters JJG 366	0.001 Ω ~10k Ω	$U_{rel}=0.5\%$		
2	*Contactless Electrostatic Voltage Measuring Instruments	DC Voltage	640110	Calibration Specification for Contactless Electrostatic Voltage Measuring Instruments JJF 1517	(0.1~30) kV	$U_{rel}=1.5\%$		
3	*Resistive Current Testers for Zinc-oxide Surge Arrester	Current	700959	Calibration Specification of Resistive Current Testers for Zinc-oxide Surge Arrester JJF (zhe) 1082	(0.1~100) mA , (45~65) Hz	$U_{rel}=0.3\%$		
		Voltage	700959		(1~300) V (45~65) Hz	$U_{rel}=0.3\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
4	*EB analyzer	Voltage	040906	Verification Regulation of EB Analyzer JJG (zhe) 63	(1~1000)V (45~65) Hz	$U_{rel}=0.11\%$		
		Voltage	040906		(10~300)V (20~50) kHz	$U_{rel}=0.40\%$		
		Current	040906		(0.1~10)A (45~65) Hz	$U_{rel}=0.20\%$		
		Current	040906		(0.1~1)A (20~50) kHz	$U_{rel}=1.0\%$		
		AC Power	040906		(1~600)V (0.1~10)A (45~65) Hz	$U_{rel}=0.25\%$		
		AC Power	040906		(10~300)V (0.1~1)A (20~50) kHz	$U_{rel}=1.2\%$		
		Frequency	040906		40Hz~50kHz	$U_{rel}=0.02\%$		
		Power Factor	040906		0.01~1	$U_{rel}=0.08\%$		
5	*Tesla-Meter	Magnetic Induction	640601	Verification Regulation of Tesla-Meter JJG 242	(50、100、200、500、1000、1680)mT	$U_{rel}=0.5\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
6	*DC. LOW Resistance Meters	Resistance	640306	Verification Regulation of DC LOW Resistance Meters JJG 837	1mΩ ~ 100kΩ	$U_{rel}=0.2\%$		
7	*Battery Resistance Test	Voltage	701015	C. S. for Battery Internal Resistance Testers JJF1620	(1~100)V	$U_{rel}=0.2\%$		
		Resistance	701015		10mΩ ~ 10kΩ	$U_{rel}=0.5\% \sim 6\%$		
8	*Clamp Ammeter	DC Current	640204	Calibration Specification for Clamp Ammeters JJF 1075	(0.01~1000)A	$U_{rel}=1.2\%$		
		AC Current	640204		(0.01~1000)A, (45~65)Hz	$U_{rel}=1.2\%$		
9	*Industry Frequency Single-phase Phase Meter	Phase	640406	Verification Regulation of Industry Frequency Single-Phase Meter JJG 440	-180° ~ 0° ~ +180°	$U=0.18^\circ$		
		Power Factor	640406		0.01~1	$U_{rel}=0.08\%$		
10	*Online Testers of Winding Temperature Rise	Resistance	701003	Calibration Specification for Online Testers of Winding Temperature Rise JJF 1540	10mΩ ~ 10kΩ	$U_{rel}=0.10\%$		
11	*Digital AC Electrical	AC Voltage	640401	Calibration Specification for Digital AC Electrical	(1~1000)V (45~65)Hz	$U_{rel}=0.12\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Parameters Meters	AC Current	640401	Parameters Meter JJF1491	(0.1~20)A(45~65)Hz	$U_{rel}=0.23\%$		
		AC Power	640401		(0.1~10000)W(45~65)Hz	$U_{rel}=0.30\%$		
		Frequency	640401		40Hz~1kHz	$U_{rel}=0.10\%$		
		Power Factor	640401		0.2~1(45~65)Hz	$U_{rel}=0.20\%$		
12	*Test equipment for relaying protection	Voltage	040802	V. R. of Relaying Protection JJG 1112	DC: (1~750)V	$U_{rel}=0.03\%$		
					AC: (1~750)V(45~65)Hz	$U_{rel}=0.26\%$		
		Current	040802		DC: (1~100)A	$U_{rel}=0.18\%$		
					AC: (1~100)A(45~65)Hz	$U_{rel}=0.25\%$		
13	*Amperemeter Voltmeter Wattmeter and Ohmmeter	DC Voltage	640103	Verification Regulation of Amperemeters, Voltmeters, Wattmeters and Ohmmeters JJG 124	3.3mV~329.999mV	$U_{rel}=0.062\%$		
					330mV~329.999V	$U_{rel}=0.060\%$		
					330V~1000V	$U_{rel}=0.070\%$		
		AC Voltage	640102		(1mV~32.999mV)(45Hz~1kHz)	$U_{rel}=0.17\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(33mV~1000V) (45Hz~1kHz)	$U_{rel}=0.08\%$		
		DC Current	640202		0.1mA~2.1999A	$U_{rel}=0.06\%$		
					2.2A~20A	$U_{rel}=0.12\%$		
		AC Current	640203		(29 μ A~2.1999A) (45Hz~1kHz)	$U_{rel}=0.16\%$		
					(2.2A~20A) (45Hz~1kHz)	$U_{rel}=0.42\%$		
		Resistance	640305		1.1 Ω ~10M Ω	$U_{rel}=0.12\%$		
		DC Power	640401		(0.033~1000)V/(0.33mA~2.199A)	$U_{rel}=0.12\%$		
					(0.033~1000)V/(2.2~20)A	$U_{rel}=0.13\%$		
		AC Power	640103		(0.33~1000)V/(3.3mA~2.1999A), (45~65)Hz	$U_{rel}=0.15\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(0.33~1000)V/ (2.2~20)A, (45~65)Hz	$U_{rel}=0.35\%$		
14	Calibrator	DC Voltage	640503	V. R. of DC Standard Voltage Source JJF1638	(0.01~0.1)V	$U_{rel}=0.0021\%$		
					(0.1~1)V	$U_{rel}=0.0018\%$		
					(1~10)V	$U_{rel}=0.0017\%$		
					(10~100)V	$U_{rel}=0.0022\%$		
					(100~1000)V	$U_{rel}=0.0022\%$		
		AC Voltage	640503		(0.001~0.01)V (40~1000)Hz	$U_{rel}=0.17\%$ $\sim 0.053\%$		
					(0.001~0.01)V (1~20)kHz	$U_{rel}=0.17\%$ $\sim 0.083\%$		
					(0.01~0.1)V (40~1000)Hz	$U_{rel}=0.033\%$ $\sim 0.013\%$		
					(0.01~0.1)V (1~20)kHz	$U_{rel}=0.042\%$ $\sim 0.026\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(0.1~1)V(40~1000)Hz	$U_{rel}=0.033$ %~0.013%		
					(0.1~1)V(1~20)kHz	$U_{rel}=0.041$ %~0.023%		
					(1~10)V(40~1000)Hz	$U_{rel}=0.033$ %~0.013%		
					(1~10)V(1~20)kHz	$U_{rel}=0.042$ %~0.021%		
					(10~100)V(40~1000)Hz	$U_{rel}=0.027$ %~0.025%		
					(10~100)V(1~20)kHz	$U_{rel}=0.048$ %~0.027%		
					(100~1000)V(40~1000)Hz	$U_{rel}=0.072$ %~0.054%		
		DC Current	640503		(10~100) μ A	$U_{rel}=0.016$ %~0.011%		
					(0.1~1)mA	$U_{rel}=0.011$ %~0.013%		
					(1~10)mA	$U_{rel}=0.013$ %~0.0048%		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(10~100)mA	$U_{rel}=0.016\%$ $\sim 0.0079\%$		
					(0.1~1)A	$U_{rel}=0.032\%$ $\sim 0.018\%$		
		AC Current	640503		(0.01~0.1)mA (45~100)Hz	$U_{rel}=0.18\%$ $\sim 0.12\%$		
					(0.01~0.1)mA (0.1~5)kHz	$U_{rel}=0.18\%$ $\sim 0.12\%$		
					(0.1~1)mA (45~100)Hz	$U_{rel}=0.16\%$ $\sim 0.11\%$		
					(0.1~1)mA (0.1~5)kHz	$U_{rel}=0.078\%$ $\sim 0.064\%$		
					(0.1~1)mA (5~20)kHz	$U_{rel}=0.17\%$ $\sim 0.11\%$		
					(1~10)mA (45~100)Hz	$U_{rel}=0.16\%$ $\sim 0.11\%$		
					(1~10)mA (0.1~5)kHz	$U_{rel}=0.078\%$ $\sim 0.064\%$		
					(1~10)mA (5~20)kHz	$U_{rel}=0.17\%$ $\sim 0.11\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(10~100)mA (45~100)Hz	$U_{rel}=0.16\%$ ~0.11%		
					(10~100)mA (0.1~5)kHz	$U_{rel}=0.078\%$ %~0.064%		
					(10~100)mA (5~20)kHz	$U_{rel}=0.17\%$ ~0.11%		
					(0.1~1)A (45~100)Hz	$U_{rel}=0.33\%$ ~0.13%		
					(0.1~1)A (0.1~5)kHz	$U_{rel}=0.23\%$ ~0.15%		
					(0.1~1)A (5~20)kHz	$U_{rel}=0.48\%$ ~0.38%		
		Resistance	640503		(0.001~1) Ω	$U_{rel}=5.8\%$ ~0.011%		
					(1~10) Ω	$U_{rel}=0.0051\%$ ~0.0038%		
					(10~100) Ω	$U_{rel}=0.0042\%$ ~0.0034%		
					(0.1~1)k Ω	$U_{rel}=0.0036\%$ ~0.0024%		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
					(1~ 10)kΩ	$U_{rel}=0.0024$ %~ 0.0035%		
					(10~ 100)kΩ	$U_{rel}=0.0036$ %~ 0.0045%		
					(0.1~ 1)MΩ	$U_{rel}=0.0045$ %~ 0.0036%		
					(1~ 10)MΩ	$U_{rel}=0.015$ %~0.008%		
					(10~ 100)MΩ	$U_{rel}=0.073$ %~0.062%		
					(0.1~ 1)GΩ	$U_{rel}=0.72\%$ ~0.62%		
		Freque ncy	10Hz~ 1MHz	$U_{rel}=0.012$ %				
15	DC Resist ance Box	Resist ance	640304	Verification Regulation of D. C. Resistance Box JJG 982	(0.001 ~1)Ω	$U_{rel}=5.8\%$ ~0.011%		
					(1~10) Ω	$U_{rel}=0.0051$ %~ 0.0038%		
					(10~ 100)Ω	$U_{rel}=0.0042$ %~ 0.0034%		
					(0.1~ 1)kΩ	$U_{rel}=0.0036$ %~ 0.0024%		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(1~10)kΩ	$U_{rel}=0.0086\%$ ~ 0.0035%		
					(10~100)kΩ	$U_{rel}=0.0036\%$ ~ 0.0022%		
					(0.1~1)MΩ	$U_{rel}=0.0045\%$ ~ 0.0036%		
					(1~10)MΩ	$U_{rel}=0.015\%$ ~ 0.008%		
					(10~100)MΩ	$U_{rel}=0.073\%$ ~ 0.062%		
					(0.1~1)GΩ	$U_{rel}=0.72\%$ ~ 0.62%		
16	*Ground Continuity Tester	Resistance	640310	Verification Regulation of Ground Continuity Tester JJG 984	1mΩ ~ 10mΩ	$U_{rel}=5.0\%$		
					10mΩ ~ 100mΩ	$U_{rel}=0.25\%$		
		AC Current	640310		100mΩ ~ 1000mΩ	$U_{rel}=0.16\%$		
					1A~30A	$U_{rel}=0.21\%$		
17	*Insulation Resistance Meter	Insulation	640308	Verification Regulation of Insulation Resistance Meter JJG622	100Ω ~ 10MΩ	$U_{rel}=0.3\%$		
					10MΩ ~ 100MΩ	$U_{rel}=0.6\%$		
					100MΩ ~ 1GΩ	$U_{rel}=1.3\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					1G Ω ~ 10G Ω	$U_{rel}=2.5\%$		
					10G Ω ~ 100G Ω	$U_{rel}=6.4\%$		
		DC Voltage			100 V ~ 5000 V	$U_{rel}=1.2\%$		
18	*High Insulation Resistance Meter	Insulation	640309	Verification Regulation of High Insulation Resistance Meters JJG690	100 Ω ~ 10M Ω	$U_{rel}=0.3\%$		
					10M Ω ~ 100M Ω	$U_{rel}=0.6\%$		
					100M Ω ~ 1G Ω	$U_{rel}=1.3\%$		
					1G Ω ~ 10G Ω	$U_{rel}=2.5\%$		
					10G Ω ~ 100G Ω	$U_{rel}=6.4\%$		
		DC Voltage			100 V ~ 1000 V	$U_{rel}=1.2\%$		
19	*Electronic Insulation Resistance Meter	Insulation	640308	Verification Regulation of Electronic Insulation Resistance Meters JJG 1005	100 Ω ~ 10M Ω	$U_{rel}=0.3\%$		
					10M Ω ~ 100M Ω	$U_{rel}=0.6\%$		
					100M Ω ~ 1G Ω	$U_{rel}=1.3\%$		
					1G Ω ~ 10G Ω	$U_{rel}=2.5\%$		
					10G Ω ~ 100G Ω	$U_{rel}=6.4\%$		
		DC Voltage	640308		100 V ~ 5000 V	$U_{rel}=1.2\%$		
20	*DC Leakage Current	DC Current	640206	Verification Regulation of Leakage Current Tester	(0.1 ~ 10) mA	$U_{rel}=0.2\%$		
					(10 ~ 100) mA	$U_{rel}=0.20\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	t Meter			JJG 843	(100~1000) mA	$U_{rel}=0.10\%$		
		DC Voltage	640206		(10~100) V	$U_{rel}=0.06\%$		
					(100~1000) V	$U_{rel}=0.09\%$		
21	*AC Leakage Current Meter	AC Current	640206	Verification Regulation of Leakage Current Tester JJG 843	(0.1~10) mA, (45~1000) Hz	$U_{rel}=0.5\%$		
					(10~100) mA, (45~1000) Hz	$U_{rel}=0.5\%$		
		AC Voltage	640206		(10~100) V, (45~1000) Hz	$U_{rel}=0.09\%$		
					(100~1000) V, (45~1000) Hz	$U_{rel}=0.12\%$		
22	*Withstanding Voltage Tester	Voltage	640113	Verification Regulation of Withstanding Voltage Tester JJG 795	DC: 0.1kV~10kV	$U_{rel}=1.2\%$		
					AC: 0.1kV~10kV, (45~65) Hz	$U_{rel}=1.2\%$		
		Current	640113		DC: 0.1mA~100mA	$U_{rel}=1.3\%$		
					AC: 0.1mA~100mA, (45~65) Hz	$U_{rel}=1.4\%$		
		Time	640113		1s~60s	$U_{rel}=0.6\%$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
23	*Cable Tester	Resist ance	701018	Calibration Specification for Cable Testers JJF 1457	0.1 Ω ~ 100k Ω	$U_{rel}=0.5\%$		
		Insula tion	701018		100 Ω ~ 10M Ω	$U_{rel}=0.3\%$		
					10M Ω ~ 100M Ω	$U_{rel}=0.6\%$		
					100M Ω ~1G Ω	$U_{rel}=1.3\%$		
		DC Voltag e	701018		(10~ 1000)V	$U_{rel}=0.7\%$		
24	*Digit al Power Meter		640401	Verification Regulation of AC Digital Power Meter JJG 780	(1~ 3.29999)V, (45 ~65)Hz	$U_{rel}=0.027$ %		
					(3.3~ 32.9999)V, (45 ~65)Hz	$U_{rel}=0.043$ %		
					(33~ 329.999)V, (45 ~65)Hz	$U_{rel}=0.032$ %		
					(330~ 600)V, (45~ 65)Hz	$U_{rel}=0.043$ %		
					(0.1~ 0.32999)A, (45 ~65)Hz	$U_{rel}=0.08\%$		
		AC Curren t	640401		(0.33~ 1.09999)A, (45 ~65)Hz	$U_{rel}=0.10\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(1.1~2.99999)A, (45~65)Hz	$U_{rel}=0.09\%$		
					(3~10.9999)A, (45~65)Hz	$U_{rel}=0.17\%$		
		AC Power	640401		(0.33~1000)V (45~65)Hz (0.09~0.32999)A, (45~65)Hz	$U_{rel}=0.11\%$		
					(0.33~1000)V (45~65)Hz (0.33~0.8999)A, (45~65)Hz	$U_{rel}=0.15\%$		
					(0.33~1000)V (45~65)Hz (0.9~2.1999)A, (45~65)Hz	$U_{rel}=0.13\%$		
					(0.33~1000)V (45~65)Hz (2.2~4.4999)A, (45~65)Hz	$U_{rel}=0.16\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(0.33~1000)V (45~65)Hz (4.5~20)A, (45~65)Hz	$U_{rel}=0.14\%$		
25	*Wire Spark Tester	DCV	701014	Calibration Specification of Wire Spark Tester JJF(Lu)63	(0.1~35)kV	$U_{rel}=1.2\%$	only for voltage	
		ACV	701014		(0.1~35)kV, (45~65) Hz	$U_{rel}=1.5\%$		
26	*Plug Cable Comprehensive Tester	Voltage	640113	Calibration Specification for Safety Parameter Tester JJF (Electronics) 0004	(0.1~10)kV, (45~65)Hz	$U_{rel}=1.2\%$		
		Leakage Current	640113		(0.1~100)mA, (45~65)Hz	$U_{rel}=1.3\%$		
		Insulation	640308		100Ω~100GΩ, (10~1000)V	$U_{rel}=0.3\%$ ~6.4%		
		Time	640308		(1~3600) s	$U_{rel}=0.6\%$		
		Resistance	640310		1mΩ~10mΩ	$U_{rel}=5.0\%$		
					10mΩ~100mΩ	$U_{rel}=0.25\%$		
					100mΩ~1000mΩ	$U_{rel}=0.16\%$		
		AC Current	640310		1A~30A, (45~65) Hz	$U_{rel}=0.21\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
27	*Safety Comprehensive Tester	AC Voltage	640502	Calibration Specification for Safety Parameter Tester JJF (Electronics) 0004	(0.1~10)kV, (45~65)Hz	$U_{rel}=1.2\%$		
		Leakage Current	701014		(0.1~100)mA, (45~65)Hz	$U_{rel}=1.3\%$		
		DC Voltage			(0.01~1)kV	$U_{rel}=0.6\%$		
		Insulation	640308		100Ω~10MΩ	$U_{rel}=0.3\%$		
					10MΩ~100MΩ	$U_{rel}=0.6\%$		
					100MΩ~1GΩ	$U_{rel}=1.3\%$		
					1GΩ~10GΩ	$U_{rel}=2.5\%$		
					10GΩ~100GΩ	$U_{rel}=6.4\%$		
		AC Voltage	640206		100mV~750V, 45Hz~1kHz	$U_{rel}=0.05\%$		
		AC Current	640206		1μA~1A, 45Hz~1kHz	$U_{rel}=0.06\%$		
		Resistance	640310		0.1mΩ~1mΩ	$U_{rel}=13\%$		
					1mΩ~10mΩ	$U_{rel}=5.0\%$		
					10mΩ~100mΩ	$U_{rel}=0.25\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					100m Ω ~ 1000m Ω	$U_{rel}=0.16\%$		
		AC Current	640310		1A~ 30A, (45~ 65)Hz	$U_{rel}=0.21\%$		
		Time	640502		(1~ 3600) s	$U_{rel}=0.6\%$		
28	*Wrsit Strap and Footwe ar Tester	Resist ance	640312	Calibration Specification for Wrsit Strap and Footwear Tester JJF (Electronic s) 31502	(10^5 ~ 10^7) Ω , (9V ~250V)	$U_{rel}=0.3\%$		
					(10^7 ~ 10^8) Ω , (9V ~250V)	$U_{rel}=0.6\%$		
					(10^8 ~ 10^9) Ω , (9V ~250V)	$U_{rel}=1.3\%$		
29	*Surfa ce Resist ance Tester s	Resist ance	640312	Calibration Specification for Surface Resistance Tester JJF 1285	(10^2 ~ 10^7) Ω , (9V ~250V)	$U_{rel}=0.3\%$		
					(10^7 ~ 10^8) Ω , (9V ~250V)	$U_{rel}=0.6\%$		
					(10^8 ~ 10^9) Ω , (9V ~250V)	$U_{rel}=1.3\%$		
					(10^9 ~ 10^{10}) Ω , (9V ~250V)	$U_{rel}=2.5\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(10 ¹⁰ ~10 ¹¹) Ω, (9V~250V)	6.4%		
30	*DC Bridges	Resistance	640307	Verification Regulation of DC Bridge JJG 125	0.001 Ω, 0.01 Ω, 1 Ω, 10 Ω, 100 Ω, 1000 Ω	U _{rel} =0.012 %	Accredited only for One-arm bridge	
					(0.01~1) Ω	U _{rel} =5.8%		
					(1~10) Ω	U _{rel} =0.58%		
					(10~100) Ω	U _{rel} =0.12%		
					(0.1~10) k Ω	U _{rel} =0.058 %		
					(10~100) k Ω	U _{rel} =0.12%		
31	*DC Electronic Load	DC Voltage	701020	Calibration Specification for DC Electronic Load JJF 1462	(0.1~1000)V	U _{rel} =0.02%		
		DC Current	701020		(0.01~100)A	U _{rel} =0.08%		
32	AC/DC High Voltage Meter	AC Voltage	640110	Verification Regulation of Digital High Voltmeter DLT 973	(0.1~30)kV, (45~65) Hz	U _{rel} =1.9%		
		DC Voltage	640110		(0.1~30)kV	U _{rel} =1.5%		
33	*Data Acquisition	DC Voltage	701021	Calibration Specification of Data	3.3mV~329.999 mV	U _{rel} =0.062 %		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	System			Acquisition System JJF 1048	330mV~ 3.29999 V	$U_{rel}=0.010$ %		
					3.3V~ 32.9999 V	$U_{rel}=0.012$ %		
					33V~ 329.999 9V	$U_{rel}=0.013$ %		
					330V~ 1000V	$U_{rel}=0.070$ %		
		AC Voltage	701021		1mV~ 32.9993 mV, 45Hz ~1kHz	$U_{rel}=0.17\%$		
					33mV~ 329.999 mV, 45Hz ~1kHz	$U_{rel}=0.08\%$		
					330mV~ 3.29999 V, 45Hz ~1kHz	$U_{rel}=0.04\%$		
					3.3V~ 32.9999 V, 45Hz ~1kHz	$U_{rel}=0.05\%$		
		DC Current	701021		33V~ 329.999 V, 45Hz ~1kHz	$U_{rel}=0.06\%$		
					0.03mA ~ 3.29999 mA	$U_{rel}=0.026$ %		
					3.3mA~ 32.9999 mA	$U_{rel}=0.021$ %		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change	
					33mA~ 329.999 mA	$U_{rel}=0.023$ %			
					330mA~ 2.19999 A	$U_{rel}=0.062$ %			
					2.2A~ 11A	$U_{rel}=0.12\%$			
		AC Current	701021		29 μ A~ 329.99 μ A, 45Hz ~1kHz	$U_{rel}=0.16\%$			
						0.33mA ~ 3.2999m A, 45Hz ~1kHz	$U_{rel}=0.14\%$		
						3.3mA~ 32.999m A, 45Hz ~1kHz	$U_{rel}=0.12\%$		
						33mA~ 329.99m A, 45Hz ~1kHz	$U_{rel}=0.11\%$		
						0.33A~ 2A, 45Hz ~1kHz	$U_{rel}=0.12\%$		
		Resist ance	701021		3.3 Ω ~ 10.9999 Ω	$U_{rel}=0.02\%$			
						11 Ω ~ 32.9999 Ω	$U_{rel}=0.12\%$		
						33 Ω ~ 329.999 9k Ω	$U_{rel}=0.08\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					330k $\Omega \sim$ 3.2999M Ω	$U_{rel}=0.13\%$		
					3.3M $\Omega \sim$ 100M Ω	$U_{rel}=0.61\%$		
		Temperature	701021		(-50~ 0) °C	$U=(0.5 \sim$ $0.1)^\circ\text{C}$		
					(0~ 1300) °C	$U=(0.1 \sim$ $1.4)^\circ\text{C}$		
34	*Alternating Current Bridge	Voltage	650312	Verification Regulation of Alternating Current Bridge JJG 441	(0.01~ 10)V, 1k Hz	$U_{rel}=0.5\%$		
		Inductance	650312		(10 μ H~100 μ H), 1kHz	$U_{rel}=6\%$		
					0.1mH, 1 kHz	$U_{rel}=0.25\%$		
					(1mH~ 1H), 1kHz	$U_{rel}=0.15\%$		
		Capacitance	650312		(0.1nF ~100 μ F), 1kHz	$U_{rel}=0.3\% \sim$ 6%		
		Resistance	650312		10m $\Omega \sim$ 1 Ω , 1kHz	$U_{rel}=0.6\% \sim$ 6%		
					1 $\Omega \sim$ 10 Ω , 1kHz	$U_{rel}=0.11\%$		
					10 $\Omega \sim$ 10k Ω , 1kHz	$U_{rel}=0.064$ $\% \sim 0.15\%$		
					10k $\Omega \sim$ 100k Ω , 1kHz	$U_{rel}=0.15\%$		
					Frequency	650312		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
35	*DC Potentiometers	DC Voltage	640105	Verification Regulation of DC Potentiometers JJG 123	100 μV ~ 2.1111V	$U_{rel}=0.011\%$		
36	*Wire Coating Tester	DC Voltage	701014	Calibration Specification of Wire Spark Tester JJF(Lu)63	100V ~ 3000V	$U_{rel}=1.2\%$	only for testing voltage	
37	*Winding Wire Tester	AC Voltage	701014	Verification Regulation of Withstanding Voltage Tester JJG 795	100V ~ 15kV, (45 ~ 65) Hz	$U_{rel}=1.3\%$	only for output voltage	
38	*Insulation Connectivity Tester	Insulation	640308	Verification Regulation of Insulation Resistance Meter JJG622	100 Ω ~ 10M Ω, (100 ~ 1000) V	$U_{rel}=0.3\%$		
					10M Ω ~ 100M Ω, (100 ~ 1000) V	$U_{rel}=0.6\%$		
					100M Ω ~ 1G Ω, (100 ~ 1000) V	$U_{rel}=1.3\%$		
					1G Ω ~ 10G Ω, (100 ~ 1000) V	$U_{rel}=2.5\%$		
39	*Loop Resistance Tester	Resistance	640313	Verification Regulation of Ground Continuity Tester JJG 1052	0.03m Ω ~ 2m Ω	$U_{rel}=1.3\%$		
		DC Current	640313		(0.1 ~ 100) A	$U_{rel}=0.5\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
40	*Transformer Electric energy Tester	AC Voltage	640104	Verification Regulation of Electrical Parameters Tester JJG(Zhe)89	(0.01~1000)V, (40~400)Hz	$U_{rel}=0.12\%$		
		AC Current	640203		(0.01~11)A, (40~400)Hz	$U_{rel}=0.20\%$		
		AC Power	640401		(0.001~11)kW, (40~400)Hz	$U_{rel}=0.10\%$		
		DC Voltage	640103		(0.01~100)V	$U_{rel}=0.05\%$		
		DC Current	640202		(0.01~11)A	$U_{rel}=0.10\%$		
41	*Interbedded Short Circuit Tester	Pulse High Voltage	701026	Calibration specification for interlayer short circuit tester JJF(ST)1017	(0.1~6)kV	$U_{rel}=3.2\%$	only for output voltage	
42	*Cable Voltage Tester	AC Voltage	640104	Verification Regulation of AC Standard Current Source JJG(Military)70, Verification Regulation of AC Standard Voltage Source JJG(Military)71	(0.001~2)V, 10Hz~10kHz	$U_{rel}=0.10\%$		
		AC Current	640203		(0.01~50)A, 10Hz~10kHz	$U_{rel}=0.7\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
43	*Current Load Tester	AC Voltage	640104	Verification Regulation of AC Standard Current Source JJG(Military)70, Verification Regulation of AC Standard Current Source JJG(Military)71	(0.01~100)V, 10Hz~1kHz	$U_{rel}=0.10\%$		
		AC Current	640203	Verification Regulation of AC Standard Current Source JJG(Military)71	(0.1~100)A, 10Hz~1kHz	$U_{rel}=0.7\%$		
44	*Electrical Source Load BOX	AC Voltage	640104	Verification Regulation of AC Standard Current Source JJG(Military)70, Verification Regulation of AC Standard Voltage Source JJG(Military)71	(0.1~300)V, 10Hz~10kHz	$U_{rel}=0.10\%$		
		AC Current	640203	Verification Regulation of AC Standard Voltage Source JJG(Military)71	(0.1~20)A, 10Hz~10kHz	$U_{rel}=0.7\%$		
45	*Power Supply Load BOX	AC Voltage	640104	Verification Regulation of AC Standard Voltage Source JJG(Military)71, Verification Regulation of AC Standard Current Source JJG(Military)70, Verification Regulation of D.C. Resistance Box	(0.1~300)V, 10Hz~10kHz	$U_{rel}=0.1\%$		
		AC Current	640203	Verification Regulation of AC Standard Current Source JJG(Military)70, Verification Regulation of D.C. Resistance Box	(0.1~20)A, 10Hz~1kHz	$U_{rel}=0.7\%$		
		Resistors	640304	Verification Regulation of D.C. Resistance Box	(0.01~1000) Ω	$U_{rel}=0.10\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
				JJG 982				
46	*Battery Test System	DC Voltage	640103	Calibration Specification for Charge & Discharge of Battery Tester JJF (Military) 108	(0.01~0.1)V	$U_{rel}=0.010\%$		
					(0.1~1)V	$U_{rel}=0.015\%$		
					(1~10)V	$U_{rel}=0.012\%$		
					(10~100)V	$U_{rel}=0.015\%$		
					(100~1000)V	$U_{rel}=0.02\%$		
		DC Current	640202		(0.001~0.01)A	$U_{rel}=0.35\%$		
					(0.01~0.1)A	$U_{rel}=0.15\%$		
					(0.1~2)A	$U_{rel}=0.28\%$		
					(2~20)A	$U_{rel}=0.40\%$		
					(20~500)A	$U_{rel}=0.80\%$		
47	*Clamp Earth Resistance Tester	Resistance	640310	Verification Regulation of Clamp Earth Resistance Meter JJG 1054	(0.1~1)Ω	$U_{rel}=1.2\%$		
					(1~1000)Ω	$U_{rel}=0.14\%$		
48	*Proof Tracking Index	AC Voltage	701016	Calibration Specification for Proof Tracking Index	(1V~750V), (45~65)Hz	$U_{rel}=0.10\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Testers	AC Current	701016	Testers JJF (Zhe) 1087	(0.01A ~1A), (45~65)Hz	$U_{rel}=0.7\%$		
		Length	601016		(0~10)mm	$U=0.01\text{mm}$		
		Time	601016		(0~100) s	$U=0.30\text{s}$		
		Quality	601016		10g~1kg	$U=(0.03\sim 0.3)\text{g}$		
49	*Transformers Turn Ratio Test Sets	Transformers Turn Ratio	640109	Verification Regulation of Transformers Turn Ratio Test Sets JJG 970	1~2000	$U_{rel}=0.026\%$		
50	*High-voltage Withstanding Voltage Tester	AC Voltage	640113	Verification Regulation of High-voltage Withstanding Voltage Tester JJG (Military) 18	0.1kV~100kV (45~65)Hz	$U_{rel}=1.2\%$	except leakage current	
		DC Voltage	640113		0.1kV~100kV	$U_{rel}=0.6\%$		
		Time	640113		1s~60s	$U_{rel}=1.0\%$		
51	*Electrical Parameters Tester	AC Voltage	640401	Verification Regulation of Electrical Parameters Tester JJG (Zhe) 89	(1~1000) V (45~65)Hz	$U_{rel}=0.04\%$		
		AC Current	640401		(0.1~20) A (45~65)Hz	$U_{rel}=0.30\%$		
		AC Power	640401		(0.1~6000) W (45~65)Hz	$U_{rel}=0.12\%$		
		DC Voltage	640401		(1~1000) V	$U_{rel}=0.01\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		DC Current	640401		(0.1~20)A	$U_{rel}=0.22\%$		
		DC Power	640401		(0.1~6000)W	$U_{rel}=0.12\%$		
		Frequency	640401		40Hz~1kHz	$U_{rel}=0.03\%$		
		Power Factor	640401		0.2~1 (45~65)Hz	$U_{rel}=0.12\%$		
52	* High Voltage Divider at Power Frequency	Divider	640114	Verification Regulation of High Voltage Divider at Power Frequency JJG 496	(1~100)kV/ (1~100)V (45~65)Hz	$U_{rel}=1.5\%$		
53	*Process Calibrators	DC voltage input	640503	Calibration Specification for Process Calibrators JJF 1472	(0.01~300)V	$U_{rel}=0.05\%$		
		DC current input	640503		(0.1~100)mA	$U_{rel}=0.1\%$		
		AC voltage input	640503		10mV~300V, 10Hz~10kHz	$U_{rel}=0.1\%$		
		AC current input	640503		0.1mA~200mA, 10Hz~5kHz	$U_{rel}=0.2\%$		
		DC Resistance	640503		0.001Ω~100kΩ	$U_{rel}=0.1\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Frequency input	640503		1Hz~500kHz	$U_{rel}=0.2\%$		
		DC voltage output	640503		(0.001~100)V	$U_{rel}=0.1\%$		
		DC current output	640503		(0.01~100) mA	$U_{rel}=0.2\%$		
		Resistance output	640503		0.001 Ω ~10k Ω	$U_{rel}=0.1\%$		
		Frequency output	640503		1Hz~50kHz	$U_{rel}=0.1\%$		
		Thermocouple temperature output	640503		(-200~1300) $^{\circ}\text{C}$	$U=(0.3\sim 1.0)^{\circ}\text{C}$		
		Thermal resistance temperature output	640503		(-200~850) $^{\circ}\text{C}$	$U=(0.3\sim 0.8)^{\circ}\text{C}$		
		Thermocouple temperature measurement	640503		(-30~1300) $^{\circ}\text{C}$	$U=(0.3\sim 1.0)^{\circ}\text{C}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Thermal resistance temperature measurement	640503		(-200~850) °C	$U=(0.3\sim 0.8)\%C$		
54	*Charged Plate Monitor	Voltage	640199	Calibration Regulation of Charged Plate Monitor JJF(Electronics)31003	(0.1~1020) V	$U_{rel}=1.0\%$		
		Time	640119		0.1s~99.9s	$U_{rel}=1.5\%$		
55	Electrical Quantity Transducer	AC Voltage	640505	Measuring transducers for converting a.c. electrical quantities into d.c. electrical quantities JJG 126	10mV~1000V (45Hz~65Hz)	$U_{rel}=0.03\%$	Accredited only for Single	Expansion
		AC Current	640505		0.1mA~10A (45Hz~65Hz)	$U_{rel}=0.05\%$		
		AC Power	640505		10mW~6000W (45Hz~65Hz)	$U_{rel}=0.1\%$		
		Power factor	640505		0.5C~1~0.5L	$U_{rel}=0.2\%$		
		Frequency	640505		10Hz~1kHz	$U_{rel}=0.01\%$		
56	*Motor Stator Testing System	AC Voltage	640599	Calibration Specification for Motor Stator Testing System JJG (Min) 1060	(0.1~3)kV, (45Hz~65Hz)	$U_{rel}=1.2\%$		Expansion
		AC Current	640599		(0.1~100)mA, (45Hz~65Hz)	$U_{rel}=1.2\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Voltage distortion	640599		(0.05~30)%	$U_{rel}=10\%$		
		Insulation resistance	640599		100 Ω ~ 1000M Ω , (10~1000)V	$U_{rel}=1.2\%$		
		Open circuit Voltage	640599		(10~1000)V	$U_{rel}=1.2\%$		
		DC resistance	640599		1m Ω ~ 20k Ω	$U_{rel}=0.2\%$		
		Impulsive Voltage	640599		(0.5~3)kV	$U_{rel}=3\%$		
		Front time	640599		(0.1~1.2) μ s	$U_{rel}=10\%$		
57	*Power Quality Analyzer	AC Voltage	640501	Verification code for power quality analyzer DL/T 1028	(1~1000)V, (45Hz~1kHz)	$U_{rel}=0.1\%$		Expansion
		Frequency	640501		45Hz~10kHz	$U_{rel}=0.01\%$		
		Harmonic Voltage	640501		(1~300)V, (45~65)Hz	$U_{rel}=0.2\%$		
		Harmonic current	640501		(0.05~5)A, (45~65)Hz	$U_{rel}=0.2\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
58	*AC Source	AC Voltage	640599	Verification Regulation of AC standard Current Source	1V~400V, 10Hz~10kHz	$U_{rel}=0.10\%$		Expansion
		AC Current	640559	JJG 70 ((Military), Verification Regulation of AC Standard Voltage Source	0.01A~20A, 10Hz~5kHz	$U_{rel}=0.7\%$		
		Frequency	640559	JJG 71 ((Military)	10Hz~10kHz	$U_{rel}=0.05\%$		
		Distortion	640559		(0.1~30)%	$U_{rel}=10\%$		
59	*DC Stabilized Power Supplies	DC Voltage	640202	Calibration Specification for DC Stabilized Power Supplies JJF 1597	(0.01~0.1)V	$U_{rel}=0.010\%$		Expansion
					(0.1~1)V	$U_{rel}=0.015\%$		
					(1~10)V	$U_{rel}=0.012\%$		
					(10~100)V	$U_{rel}=0.015\%$		
					(100~1000)V	$U_{rel}=0.02\%$		
		DC Current	640104		(0.001~0.01)A	$U_{rel}=0.35\%$		
					(0.01~0.1)A	$U_{rel}=0.15\%$		
					(0.1~1)A	$U_{rel}=0.28\%$		
					(1~3)A	$U_{rel}=0.25\%$		
					(3~1000)A	$U_{rel}=0.6\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
60	*Multimeters	DC Voltage	640504	C. S for Multimeters JJF 1587	(1~100)mV	$U_{rel}=0.0015\%$		Expansion
					(0.1~1)V	$U_{rel}=0.0011\%$		
					(1~10)V	$U_{rel}=0.0008\%$		
					(10~100)V	$U_{rel}=0.0022\%$		
					(100~1000)V	$U_{rel}=0.0013\%$		
		AC Voltage	640504		(1mV~10mV) (1Hz~40Hz)	$U_{rel}=0.035\%$		
					(1mV~10mV) (40Hz~1kHz)	$U_{rel}=0.018\%$		
					(1mV~10mV) (1kHz~20kHz)	$U_{rel}=0.025\%$		
					(10mV~10V) (1Hz~40Hz)	$U_{rel}=0.014\%$		
					(10mV~10V) (40Hz~1kHz)	$U_{rel}=0.011\%$		
					(10mV~10V) (1kHz~20kHz)	$U_{rel}=0.018\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(10V~100V) (1 Hz~40Hz)	$U_{rel}=0.026\%$		
					(10V~100V) (40Hz~1kHz)	$U_{rel}=0.026\%$		
					(10V~100V) (1kHz~20kHz)	$U_{rel}=0.026\%$		
					(100V~1000V) (1Hz~40Hz)	$U_{rel}=0.044\%$		
					(100V~1000V) (40Hz~1kHz)	$U_{rel}=0.041\%$		
					(100V~1000V) (1kHz~20kHz)	$U_{rel}=0.08\%$		
		DC Current	640504		(10~100) μ A	$U_{rel}=0.0036\%$		
				(100~1000) μ A	$U_{rel}=0.0032\%$			
				(1~10) mA	$U_{rel}=0.0032\%$			
				(10~100) mA	$U_{rel}=0.005\%$			
				(100~1000) mA	$U_{rel}=0.02\%$			

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(1~20)A	$U_{rel}=0.065\%$		
		AC Current	640504		(0.029mA~0.1mA) (10Hz~20Hz)	$U_{rel}=0.65\%$		
					(0.029mA~0.1mA) (20Hz~45Hz)	$U_{rel}=0.23\%$		
					(0.029mA~0.1mA) (45Hz~0.1kHz)	$U_{rel}=0.12\%$		
					(0.029mA~0.1mA) (0.1kHz~5kHz)	$U_{rel}=0.14\%$		
					(0.1mA~1.0mA) (10Hz~20Hz)	$U_{rel}=0.58\%$		
					(0.1mA~1.0mA) (20Hz~45Hz)	$U_{rel}=0.23\%$		
					(0.1mA~1.0mA) (45Hz~0.1kHz)	$U_{rel}=0.11\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(0.1mA ~ 1.0mA) (0.1kHz ~ 5kHz)	$U_{rel}=0.072\%$		
					(0.1mA ~ 1.0mA) (5kHz ~ 10kHz)	$U_{rel}=0.10\%$		
					(1mA ~ 100mA) (10Hz ~ 20Hz)	$U_{rel}=0.55\%$		
					(1mA ~ 100mA) (20Hz ~ 45Hz)	$U_{rel}=0.22\%$		
					(1mA ~ 100mA) (45Hz ~ 0.1kHz)	$U_{rel}=0.10\%$		
					(1mA ~ 100mA) (0.1kHz ~ 5kHz)	$U_{rel}=0.082\%$		
					(1mA ~ 100mA) (5kHz ~ 10kHz)	$U_{rel}=0.10\%$		
					(0.1A ~ 1A) (10Hz ~ 20Hz)	$U_{rel}=0.58\%$		
					(0.1A ~ 1A) (20Hz ~ 45Hz)	$U_{rel}=0.21\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(0.1A~1A) (45Hz~0.1kHz)	$U_{rel}=0.11\%$		
					(0.1A~1A) (0.1kHz~5kHz)	$U_{rel}=0.16\%$		
					(1A~20A) (45Hz~0.1kHz)	$U_{rel}=0.15\%$		
		OHM	640504		(0.1~10) Ω	$U_{rel}=0.005\%$		
					(10~100) Ω	$U_{rel}=0.002\%$		
					(0.1~1)k Ω	$U_{rel}=0.0015\%$		
					(1~10)k Ω	$U_{rel}=0.0014\%$		
					(10~100)k Ω	$U_{rel}=0.0015\%$		
					(0.1~1)M Ω	$U_{rel}=0.0022\%$		
					(1~10)M Ω	$U_{rel}=0.0065\%$		
					(10~100)M Ω	$U_{rel}=0.068\%$		
					(0.1~0.329999)G Ω	$U_{rel}=0.65\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
61	*Measuring Alternating-current Electrical Energy	Electrical Energy	640402	Electrical Meters for Measuring Alternating-current Electrical Energy JJG 596	3× (57.7~380)V/3 × (0.1~50)A, (45~65)Hz (cos φ =1.0, 0.5L, 0.8C)	$U_{rel}=0.1\%$		Expansion
62	*Electromechanical Meters for Alternating-current Electrical Energy	Electrical Energy	640402	V. R of Electromechanical Meters for Alternating-current Electrical Energy JJG 307	3× (57.7~380)V/3 × (0.1~50)A, (45~65)Hz (cos φ =1.0, 0.5L, 0.8C)	$U_{rel}=0.1\%$		Expansion
五、Radio								
1	Semiconductor-Curve Tracer	X-axis collector voltage deflection coefficient	650501	Calibration Specification for Semiconductor Device Curve Tracers JJF 1236	0.001V~1000V	$U_{rel}=0.5\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		X-axis base voltage deflection coefficient	650501		0.001V ~1000V	$U_{rel}=0.5\%$		
		Y-axis collector current bias coefficient	650501		1 μ A~ 10A	$U_{rel}=0.5\%$		
		Step voltage	650501		1mV~ 400V	$U_{rel}=2.5\%$		
		Step current	650501		1 μ A~ 10A	$U_{rel}=2.5\%$		
2	Analog oscilloscope	Bandwidth	650212	Verification Regulation of Analogue Oscilloscope JJG 262	(1~300)MHz	$U_{rel}=0.8\%$		
		Scan time	650212		10ns~ 5s	$U_{rel}=0.25\%$		
		Vertical deflection	650212		0.2mV~ 10mV	$U_{rel}=1.3\%$		
					11mV~ 200V	$U_{rel}=0.6\%$		
3	Oscilloscope Calibrator	Amplitude	650213	Verification Regulation of Oscilloscope Calibrator JJG 278	1mV~ 100mV (1 kHz)	$U_{rel}=0.09\%$		
					100mV~ 1V (1kHz)	$U_{rel}=0.08\%$		
					1V~ 10V (1kHz)	$U_{rel}=0.06\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					10V~100V (1k Hz)	$U_{rel}=0.08\%$		
					100V~200V (1k Hz)	$U_{rel}=0.09\%$		
		Scan Time	650213		0.5ns~5s	$U_{rel}=0.10\%$		
4	Modulation Meter	Amplitude Modulation	650208	Verification Regulation of Modulation Meter JJF 1111	(5~99) % (Fc: 150kHz~10 MHz, Fm: 20Hz~10kHz)	$U_{rel}=3\%$		
					5%~99% (Fc: 10MHz~1300 MHz, Fm: 50Hz~50 kHz)	$U_{rel}=1.3\%$		
					(5~99) % (Fc: 10MHz~1300 MHz, Fm: 20Hz~50kHz, 50 kHz~100kHz)	$U_{rel}=3.5\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Frequency Modulation	650208		(0.4~400) kHz, (Fc: 150kHz~10MHz Fm: 20~10kHz)	$U_{rel}=2.4\%$		
					(0.4~400) kHz, (Fc: 10MHz~1300MHz Fm: (50Hz~100kHz))	$U_{rel}=1.3\%$		
5	Distortion Meter	Distortion	650209	Verification Regulation of Distortion Meter Calibrator JJG 251	0.01%~0.1%, 20Hz~200KHz	$U_{rel}=1.3\%$		
					0.11%~100%, 20Hz~200KHz,	$U_{rel}=0.8\%$		
		AC Voltage	650209		1mV~32.999mV, 10Hz~45Hz	$U_{rel}=0.6\%$		
					1mV~32.999mV, 45Hz~10kHz	$U_{rel}=0.5\%$		
				1mV~32.999mV, (10~20) kHz	$U_{rel}=0.5\%$			

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					1mV~ 32.999mV, (20~50) kHz	$U_{rel}=0.5\%$		
					1mV~ 32.999mV, (50~100) kHz	$U_{rel}=0.6\%$		
					1mV~ 32.999mV, (100~500) kHz	$U_{rel}=0.8\%$		
					33mV~ 329.999mV, (10~45) Hz	$U_{rel}=0.6\%$		
					33mV~ 329.999mV, 45Hz~10kHz	$U_{rel}=0.5\%$		
					33mV~ 329.999mV, (10~20) kHz	$U_{rel}=0.5\%$		
					33mV~ 329.999mV, (20~50) kHz	$U_{rel}=0.5\%$		
					33mV~ 329.999mV, (50~100) kHz	$U_{rel}=0.6\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					33mV~ 329.999 mV, (100~ 500) kHz	$U_{rel}=0.8\%$		
					330mV~ 3.29999 V, (10~ 45) Hz	$U_{rel}=0.6\%$		
					330mV~ 3.29999 V, 45Hz~ 10kHz	$U_{rel}=0.4\%$		
					330mV~ 3.29999 V, (10~ 20) kHz	$U_{rel}=0.4\%$		
					330mV~ 3.29999 V, (20~ 50) kHz	$U_{rel}=0.5\%$		
					330mV~ 3.29999 V, (50~ 100) kHz	$U_{rel}=0.5\%$		
					330mV~ 3.29999 V, (100~ 500) kHz	$U_{rel}=0.7\%$		
					3.3V~ 32.9999 V, (10~ 45) Hz	$U_{rel}=0.6\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					3.3V~ 32.9999 V, 45Hz~ 10kHz	$U_{rel}=0.4\%$		
					3.3V~ 32.9999 V, (10~ 20)kHz	$U_{rel}=0.5\%$		
					3.3V~ 32.9999 V, (20~ 50)kHz	$U_{rel}=0.5\%$		
					3.3V~ 32.9999 V, (50~ 100)kHz	$U_{rel}=0.7\%$		
					33V~ 300V, 45Hz~ 1kHz	$U_{rel}=0.5\%$		
					33V~ 300V, (1~ 10)kHz	$U_{rel}=0.4\%$		
					33V~ 300V, (10~ 20)kHz	$U_{rel}=0.4\%$		
6	Wow Flutter Meter	Modulation	650613	Verification Regulation of Wow Flutter Meter JJF 1683	(0.001 ~ 3.999)%	$U_{rel}=1.2\%$		
7	Audio Analyzer	AC Voltage (Gen)	650210	Calibration Specification of Audio Analyze JJF	10mV~ 100mV, 10Hz~ 20kHz	$U_{rel}=0.14\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
				1395	100mV~ 6V, 10Hz~ 20kHz	$U_{rel}=0.12\%$		
		Frequency (Gen)	650210		20Hz~ 100kHz	$U_{rel}=0.03\%$		
		AC Voltage (Analyzer)	650210		1mV~ 32.999mV, 10Hz~ 45Hz	$U_{rel}=0.10\%$		
					1mV~ 32.999mV, 45Hz~ 10kHz	$U_{rel}=0.15\%$		
					1mV~ 32.999mV, (10~ 20) kHz	$U_{rel}=0.2\%$		
					1mV~ 32.999mV, (20~ 50) kHz	$U_{rel}=0.10\%$		
					1mV~ 32.999mV, (50~ 100) kHz	$U_{rel}=0.3\%$		
					33mV~ 329.999mV, (10~ 45) Hz	$U_{rel}=0.10\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					33mV~ 329.999 mV, 45Hz~ 10kHz	$U_{rel}=0.2\%$		
					33mV~ 329.999 mV, (10~ 20) kHz	$U_{rel}=0.10\%$		
					33mV~ 329.999 mV, (20~ 50) kHz	$U_{rel}=0.10\%$		
					33mV~ 329.999 mV, (50~ 100) kHz	$U_{rel}=0.10\%$		
					330mV~ 3.29999 V, (10~ 45) Hz	$U_{rel}=0.10\%$		
					330mV~ 3.29999 V, 45Hz~ 10kHz	$U_{rel}=0.2\%$		
					330mV~ 3.29999 V, (10~ 20) kHz	$U_{rel}=0.2\%$		
					330mV~ 3.29999 V, (20~ 50) kHz	$U_{rel}=0.3\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					330mV~ 3.29999 V, (50~ 100)kHz	$U_{rel}=0.3\%$		
					3.3V~ 32.9999 V, (10~ 45)Hz	$U_{rel}=0.3\%$		
					3.3V~ 32.9999 V, 45Hz~ 10kHz	$U_{rel}=0.2\%$		
					3.3V~ 32.9999 V, (10~ 20)kHz	$U_{rel}=0.3\%$		
					3.3V~ 32.9999 V, (20~ 50)kHz	$U_{rel}=0.10\%$		
					3.3V~ 32.9999 V, (50~ 100)kHz	$U_{rel}=0.10\%$		
					33V~ 300V, 45Hz~ 1kHz	$U_{rel}=0.3\%$		
					33V~ 300V, (1~ 10)kHz	$U_{rel}=0.10\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					33V~300V, (10~20) kHz	$U_{rel}=0.3\%$		
		Distortion (Analyzer)	650210		0.01%~100% (20Hz~100kHz)	$U_{rel}=6.3\%$		
		Frequency (Analyzer)	650210		20Hz~100kHz	$U_{rel}=0.05\%$		
8	Spectrum Analyzer	Frequency	650124	C. S. for Spectrum Analyzer JJF 1396	100Hz~3GHz	$U_{rel}=6\times 10^{-6}$		Expansion
		Reference Level	650124		3GHz~26.5GHz	$U_{rel}=7\times 10^{-6}$		
		SPAN	650124		(-100~+17) dBm	$U=0.2\text{dB}$		
		Vertical scale	650124		100Hz~8GHz	$U_{rel}=0.8\%$		
					(0.1~10) dB/div	$U=0.4\text{dB}$		
9	Low-frequency Signal Generator	Frequency	650205	Verification Regulation of Low-frequency Signal Generator JJG 602	10Hz~1MHz	$U_{rel}=0.4\%$		
		AC Voltage	650205		1mV~10V	$U=0.1\text{dB}$		
10	Audio (Sweeper) Signal Generator	Frequency	630204	Verification Regulation of audio-frequency signal generator JJG 607	20Hz~200kHz	$U_{rel}=0.06\%$		
		AC Voltage	630204		1mV~10V	$U_{rel}=0.15\%$		
11	Function	Frequency	650201	Verification Regulation of	1Hz~250MHz	$U_{rel}=4\times 10^{-7}$		Expansion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Generator	Voltage	650124	Function Generator JJG 840	1mV~10V	$U_{rel}=0.09\%$		
		AM	650124		0.1%~99%, (Fc: 150kHz~10MHz, Fm: 20Hz~10kHz)	$U_{rel}=3.5\%$		
					(0.1~5)% (Fc: 10MHz~250MHz, Fm: 20Hz~100kHz)	$U_{rel}=3.8\%$		
					(5~99)% (Fc: 10MHz~250MHz, Fm: 50Hz~50kHz)	$U_{rel}=1.3\%$		
FM	650124	(0.1~10) kHz (Fc: 150kHz~10MHz, Fm: 50Hz~10kHz)	$U_{rel}=2.4\%$					

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(0.1~100)kHz (Fc: 10MHz~250MHz, Fm: 50Hz~100kHz)	$U_{rel}=1.3\%$		
12	High-frequency Signal Generator	Frequency	650207	Verification Regulation of Signal Generator JJG 173	10Hz~3GHz	$U_{rel}=7 \times 10^{-6}$		
					3GHz~26.5GHz	$U_{rel}=8 \times 10^{-6}$		
		Level	650207		(-100~17)dBm	$U=0.20\text{dB}$		
		AM	650207		5%~99% (Fc: 0.15MHz~10MHz, Fm: 50Hz~10kHz)	$U_{rel}=2.4\%$		
					5%~99% (Fc: 10MHz~1300MHz, Fm: 50Hz~50kHz)	$U_{rel}=1.3\%$		
		FM	650207		(0.4~400)kHz, (Fc: 0.15MHz~10MHz, Fm: 20Hz~10kHz)	$U_{rel}=2.4\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(0.4~400)kHz (Fc:10MHz~1300MHz, Fm:50Hz~100kHz)	$U_{rel}=1.3\%$		
13	Cymometer /Counters	Frequency	660105	Verification Regulation of Universal Counters JJJG 349 ,Verification Regulation of Crystal Oscillator inside the Electrical Measurement Instrument JJJG 180	10Hz~3GHz 3GHz~26.5GHz	$U_{rel}=2\times 10^{-7}$ $U_{rel}=3\times 10^{-7}$		
14	Frequency Impedance Tester	Frequency	650301	V. R. of HP4192A low Frequency Impedance Analysis Instrument JJJG (Electronics) 05007	1Hz~100kHz	$U_{rel}=0.10\%$		
		Impedance	650301		0.1Ω~100kΩ	$U_{rel}=0.10\%$		
15	Telephone analyzer	Loop Voltage	650604	Verification Regulation of Tone Telephone Analyzer JJJG (YD) 032	(1~100)V	$U_{rel}=0.2\%$		
		Loop current	650604		(10~200)mA	$U_{rel}=0.5\%$		
		Bell Voltage	650604		(1~200)V	$U_{rel}=1.0\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Bell Frequency	650604		(0.1~20) kHz	$U_{rel}=0.01\%$		
		Receive Signal	650604		(-30~0) dB	$U=0.2dB$		
		DTMF	650604		(0.1~20) kHz	$U_{rel}=0.01\%$		
16	Color TV Pattern Generator	Level	650601	C. S. for TV Signal Generator JJF 1235	(0.1~1.4) V	$U_{rel}=2.0\%$		
		Pulse Width	650601		(1~100) ms	$U=40ns$		
		Frequency	650601		(1~1000) MHz	$U=1 \times 10^{-6}$		
		Amplitude	650601		(-120~30) dBm	$U=3dB$		
17	Oscilloscope Meter	Vertical amplitude	650212	Verification Regulation of Analogue Oscilloscope JJG 262, Calibration Specification for Multimeters JJF 1587	0.2mV~10mV	$U_{rel}=1.3\%$		
					11mV~200V	$U_{rel}=0.6\%$		
		Horizontal deflection coefficient	650212		2ns/div ~ 5s/div	$U_{rel}=0.25\%$		
					(1~329.999) mV	$U_{rel}=0.062\%$		
		DC Voltage	650212		330mV~3.29999 V	$U_{rel}=0.010\%$		
					3.3V~32.9999 V	$U_{rel}=0.012\%$		
					33V~329.999 9V	$U_{rel}=0.013\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					330V~ 1000V	$U_{rel}=0.070$ %		
		AC Voltage	650212		1mV~ 32.9993 mV, (45Hz~ 1kHz)	$U_{rel}=0.17\%$		
					33mV~ 329.999 mV, (45Hz~ 1kHz)	$U_{rel}=0.08\%$		
					330mV~ 3.29999 V, (45Hz~ 1kHz)	$U_{rel}=0.040$ %		
					3.3V~ 32.9999 V, (45Hz~ 1kHz)	$U_{rel}=0.050$ %		
					33V~ 329.999 V, (45Hz~ 1kHz)	$U_{rel}=0.060$ %		
					330V~ 1000V, (45Hz~ 1kHz)	$U_{rel}=0.070$ %		
		Resist ance	650212		(0.1~ 10.9999) Ω	$U_{rel}=0.02\%$		
					11 Ω ~ 32.9999 Ω	$U_{rel}=0.12\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					33 Ω ~ 109.999 9 Ω	$U_{rel}=0.08\%$		
					110 Ω ~ 329.999 9 Ω	$U_{rel}=0.08\%$		
					330 Ω ~ 1.09999 9k Ω	$U_{rel}=0.08\%$		
					11k Ω ~ 32.9999 k Ω	$U_{rel}=0.08\%$		
					33k Ω ~ 109.999 9k Ω	$U_{rel}=0.080\%$		
					110k Ω ~ 329.999 9k Ω	$U_{rel}=0.080\%$		
					330k Ω ~ 1.09999 9M Ω	$U_{rel}=0.12\%$		
					1.1M Ω ~ 3.29999 9M Ω	$U_{rel}=0.12\%$		
					3.3M Ω ~ 10.9999 9M Ω	$U_{rel}=0.12\%$		
					11M Ω ~ 32.9999 9M Ω	$U_{rel}=0.13\%$		
					33M Ω ~ 109.999 9M Ω	$U_{rel}=0.61\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					33MΩ ~ 109.9999MΩ	$U_{rel}=0.61\%$		
18	Coil number tester	Turn	701051	Verification Regulation of YG series Coil number tester SJ 20241	10T~10000T	$U_{rel}=0.6\%$		
19	Electret Microphone Tester	Sensitivity voltage	630211	Calibration Specification for Electret Microphone Instruments JJF 1145	(-80~-20)dB	$U=1.0\text{dB}$		
		DC Voltage	630211		(0.01~100)V	$U_{rel}=0.10\%$		
		DC Current	630211		(0.1~10)mA	$U_{rel}=0.3\%$		
		Frequency	630211		(10~10000)Hz	$U_{rel}=0.05\%$		
20	Audio Sweeper	AC Voltage	630204	Verification Regulation of audio-frequency signal generator JJG 607	(0.1~200)V	$U_{rel}=0.39\%$		
	Frequency Signal Generator	Frequency	630204		(20~20000)Hz	$U_{rel}=0.12\%$		
21	Network Analyzer	Output Level	650125	Calibration Specification for Network Analyzer JJF (Electronics) 30501	(-30~20)dBm	$U=0.2\text{dB}$		
		Output Frequency	650125		10Hz~3GHz	$U_{rel}=2\times 10^{-7}$		
					3GHz~26.5GHz	$U_{rel}=3\times 10^{-7}$		
		(dynamic accuracy)	650125		S21: (0~110)dB	$U=0.2\text{dB}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Crosstalk	650125		(-110~-85) dB	$U=1.5\text{dB}$		
		Spectrum Purity	650125		(-60~-20) dBc	$U=0.10\text{dB}$		
		Anti-average Noise Level	650125		(-100~-69) dBm	$U=3\text{dB}$		
		Trace Noise	650125		(0.006~0.1) dB	$U=0.002\text{dB}$		
22	RF Impedance/Material Analyzer	Frequency	650302	C. S. for RF Impedance/Material Analyzer JJF 1127	1MHz~3GHz	$U_{\text{rel}}=1.9\times 10^{-6}$		Expansion
		Level	650302		(-30~+10) dBm	$U=1.0\text{ dB}$		
		Voltage	650320		\pm (0.1~40) V	$U_{\text{rel}}=0.10\%$		
		Impedance	650320		50 Ω , 75 Ω	$U_{\text{rel}}=3\%$		
23	Pulse Generator	Amplitude	650204	Verification Regulation of Pulse Generator JJG 490	10mV~200V	$U_{\text{rel}}=1.1\%$		
		Pulse Width	650204		1ns~50ms	$U_{\text{rel}}=0.05\%$		
		Rise Time	650204		1.1ns~10ms	$U_{\text{rel}}=10\%$		
		Frequency	65204		1Hz~500MHz	$U_{\text{rel}}=3\times 10^{-8}$		
24	RF Communication	RF Level (Gen)	650607	Calibration Specification for RF	(-127~+13) dBm	$U=1.2\text{dB}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	n Test Set	AM(Gen)	650607	Communication Test Set JJF1065	0.1%~5% (Fc: 10MHz~1GHz, Fm: 50Hz~50kHz)	$U_{rel}=3.5\%$		
					5%~99% (Fc: 10MHz~1GHz, Fm: 50Hz~50kHz)	$U_{rel}=1.3\%$		
					(5~99)% (Fc: 150kHz~10MHz, Fm: 20Hz~10kHz)	$U_{rel}=3\%$		
		FM(Gen)	650607		(0.1~40)kHz, (Fc: 150kHz~10MHz, Fm: 20Hz~10kHz)	$U_{rel}=2.5\%$		
					(0.1~400)kHz, (Fc: 10MHz~1GHz, Fm: 50Hz~100kHz)	$U_{rel}=1.3\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		RF Power Measurement	650607		(-30~30) dBm	$U_{rel}=10\%$		
		AM Measurement	650607		0.1%~5% (Fc: 10MHz~1GHz, Fm: 50Hz~50kHz)	$U_{rel}=3.5\%$		
					5%~99% (Fc: 10MHz~1GHz, Fm: 50Hz~50kHz)	$U_{rel}=1.3\%$		
					(5~99)% (Fc: 150kHz~10MHz, Fm: 20Hz~10kHz)	$U_{rel}=3\%$		
		FM Measurement	650607		(0.1~400) kHz, (Fc: 10MHz~1GHz, Fm: 50Hz~100kHz)	$U_{rel}=1.3\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(0.1~10) kHz (Fc: 150kHz ~ 10MHz, Fm: 50Hz~10 kHz)	$U_{rel}=2.4\%$		
		Audio output frequency	650607		20Hz~25kHz	$U_{rel}=0.025\%$		
		Audio output voltage	650607		0.1mV~4V (rms)	$U_{rel}=2\%$		
		Audio output frequency response	650607		20Hz~25kHz	$U_{rel}=3\%$		
		AF Residual Distortion	650607		(0.1~10)%(20 Hz~25kHz)	$U_{rel}=3\%$		
		Audio frequency measurement	650607		20Hz~25kHz	$U_{rel}=0.02\%$		
		Voltage Measurement	650607		0.01V~30V (rms)	$U_{rel}=3\%$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
		Freque ncy measur ement respon se	650607		20Hz~ 25kHz	$U_{rel}=3\%$		
		Ref. Freque ncy	650607		10MHz	$U_{rel}=5\times 10^{-8}$		
25	TV Signal Field Streng th Meter	Freque ncy	650602	V. R. of TV Signal Field Strength Meter JJG 1057	(48~ 862)MHz	$U_{rel}=3\times 10^{-6}$		
		Level	650602		VHF: (20 ~ 120) dB μ UHF: (30 ~ 110) dB μ	$U=1.2\text{dB}$		
		Bandwi dth	650602		(250~ 350) kHz	$U=10\text{kHz}$		
26	TDMA-G SM Radio Communi cation Tester s	RF Output Freque ncy	650609	Calibration Specification of TDMA-GSM Radio Communication Tester JJF 1131	500MHz ~2GHz	$U_{rel}=1.4\times 10^{-6}$		
		RF Output Level	650609		(20~ 0) dBm	$U=0.24\text{dB}$		
					(0~ -100) dB m	$U=0.35\text{dB}$		
					(-100~ -129) dB m	$U=0.56\text{dB}$		
		Audio output freque ncy	650609		20Hz~ 25kHz	$U_{rel}=1.2\times 10^{-4}$		
Audio output	650609	1mV~ 3.29V	$U_{rel}=2.3\%$					

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		level			3.3V~33V	$U_{rel}=2.5\%$		
		AF Distortion	650609		0.01%~10%	$U_{rel}=1.2\%$		
		RF Frequency Measurement	650609		250kHz~3GHz	$U_{rel}=1.5\times 10^{-4}$		
		RF Level Measurement	650609		3GHz~26.5GHz	$U_{rel}=2\times 10^{-4}$		
		RF Level Measurement	650609		(16~-120) dBm	$U=0.58\text{dB}$		
		Audio frequency measurement	650609		20Hz~25kHz	$U_{rel}=1\times 10^{-4}$		
		Audio level Measurement	650609		1mV~3.29V	$U_{rel}=0.29\%$		
		Audio level Measurement	650609		3.3V~33V	$U_{rel}=0.35\%$		
		Audio distortion measurement	650609		(0.1~30)%	$U_{rel}=3.2\%$		
		Audio distortion measurement	650609		(30~100)%	$U_{rel}=3.5\%$		
		DC voltage measurement	650609		(0.1~30)V	$U_{rel}=0.2\%$		
		DC current measurement	650609		(0.1~30)A	$U_{rel}=0.2\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
27	Bluetooth Test Set	Frequency (Output)	650611	Calibration Specification for Bluetooth Test Set JJF1278	2402MHz ~ 2480MHz	$U_{rel} = 5.9 \times 10^{-7}$		
		Level (Output)	650611		(-90 ~ 0) dBm	$U = 0.44 \text{ dB}$		
		Frequency (Measurement)	650611		2402MHz ~ 2480MHz	$U_{rel} = 9.3 \times 10^{-7}$		
		Level (Measurement)	650611		(-90 ~ 10) dBm	$U = 0.74 \text{ dB}$		
28	EMI Testing Receivers	Frequency	650122	Calibration Specification for EMI Testing Receivers JJF1144	9kHz ~ 1GHz	$U_{rel} = 4.9 \times 10^{-7}$		
		Level	650122		(0 ~ 120) dB μV	$U = 0.76 \text{ dB}$		
		Frequency Bandwidth	650112		200Hz ~ 1MHz	$U_{rel} = 2\%$		
29	RF Voltmeters	Voltage	650103	Verification Regulation of RF Voltmeters JJG308	1mV ~ 1V, (9kHz ~ 1GHz)	$U_{rel} = 2.1\%$		
30	Digital Storage Oscilloscope	Voltage	650211	Calibration Specification of Digital Storage Oscilloscope JJF 1057	0.2mV ~ 200V	$U_{rel} = 0.6\%$		
		Time	650211		1ns ~ 5s	$U_{rel} = 0.25\%$		
		Rising Time	650211		1.75ns	$U_{rel} = 5.0\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Frequency Bandwidth	650211		50kHz~300MHz	$U_{rel}=2.5\%$		
31	Distortion Meter Calibrator	Output frequency	650299	Verification Regulation of Distortion Meter Calibrator JJG 802	10Hz~200 kHz	$U_{rel}=0.03\%$		
		Output Voltage	650299		(0.001~10) V	$U_{rel}=0.20\%$		
		Frequency Response	650299		10Hz~150 kHz	$U_{rel}=0.20\%$		
		Output Distortion	650299		0.03%~30%	$U_{rel}=13\%$		
32	Artificial Mains Network (LISN)	Net Impedance	650121	C. S. for Line Impedance Stabilization Networks JJF 1705	(4~60) Ω , (300 kHz~100MHz)	$U_{rel}=3\%$		
		Voltage Partial Pressure Coefficient	650121		(0~60) dB	$U=0.20\text{dB}$		
33	HF Q-Meter	Frequency	650314	C. S. for HF Q-Meter JJF 1073	50 kHz~50 MHz	$U_{rel}=0.05\%$		
		Q Value	650314		51~276, (0.2~5.95) MHz	$U=7$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
34	Microwave Frequency Counters	Frequency Accuracy	660106	V. R. of Microwave Frequency Counters JJG 841	100kHz ~ 26.5GHz	$U_{rel}=3 \times 10^{-7}$		
		Crystal oscillation	660106		1MHz, 5MHz, 10MHz	$U_{rel}=2 \times 10^{-8}$		
35	Voltage dips, short interruptions and voltage variations immunity tests Generator	Output Voltage	120207	C. S. for Voltage dips, short interruptions and voltage variations immunity tests Generator JJF 1673	(1~300)V	$U_{rel}=2.0\%$		
		Dip voltage rise time/fall time	120207		0.1 μ s ~ 10 μ s	$U_{rel}=2.0\%$		
		Control time	120207		1ms ~ 20s	$U_{rel}=0.5\%$		
36	Impulse Voltage Testers for Winding Interturn Insulation	Pulse voltage	701052	Calibration Specification for Impulse Voltage Testers for Winding Interturn Insulation JJF 1691	(0.1~6)kV	$U_{rel}=1.5\% \sim 2.5\%$		
		Rise Time	701052		(0.5, 1.2) μ s	$U_{rel}=2.0\%$		
37	Current Probes	DC current	701044	C. S. for Current Probes Of	(0.1~20)A	$U_{rel}=0.20\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Of Oscilloscope	AC current	701044	Oscilloscope JJF (Electronics)-30305	(0.1~20)A, (0.1~10)kHz	$U_{rel}=0.50\%$		
38	SINAD meters	Input Voltage range	630207	C. S. for SINAD Meters JJF 1165	50mV~20V	$U_{rel}=0.2\%$		
		SINAD error	630207		0~20dB	$U=0.33dB$		
		Modulating signal frequency	630207		1kHz	$U_{rel}=0.8\%$		
		Modulating signal level	630207		1V~20V	$U_{rel}=0.2\%$		
		Modulating signal distortion	630207		0.01%~0.05%	$U_{rel}=1.4\%$		
39	Coaxial Attenuator	Attenuation	650117	V. R. of Coaxial Attenuator JJG 387	(0~100)dB, (10kHz~18GHz)	$U=1.0dB$		
40	CDMA Digital Radio Communication Tester	RF Output Frequency	650609	Calibration Specification for CDMA Digital Radio Communication Tester JJF 1177	100MHz~2GHz	$U_{rel}=1.5 \times 10^{-6}$		Expansion
		RF Output Level	650609		(-120~-5)dBm	$U=0.56dB$		
		EVM	650609		0.2%~10%	$U=4\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Audio output frequency	650609		100Hz~5kHz	$U_{rel}=0.1\%$		
		Audio output level	650609		1V~5V	$U_{rel}=0.5\%$		
		RF Frequency Measurement	650609		810MHz~2GHz	$U_{rel}=2\times 10^{-6}$		
		Power meter	650609		(-50~30) dBm	$U=0.55\text{dB}$		
		Audio Frequency Measurement	650609		20Hz~20kHz	$U_{rel}=1\times 10^{-4}$		
		Audio Level Measurement	650609		20mV~30V, (20Hz~20kHz)	$U_{rel}=0.45\%$		
		41	Electrical Fast Transient/Burst Generator		Voltage	701029		
Burst Duration	701029			15ms	$U_{rel}=6.7\%$			
Burst Cycle	701029			0.75ms	$U_{rel}=6.7\%$			
				300ms	$U_{rel}=6.7\%$			
42	Oscilloscope Voltage Probes	DC Voltage Attenuation	701044	Calibration Specification for Oscilloscope Voltage Probes	1:1~1000:1	$U_{rel}=1.2\%$		Expansion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Frequency response	701044	JJF 1437	(0~3) dB, (1~100) MHz	$U=1.2\text{dB}$		
43	Arbitrary Waveform Generator	Frequency	650201	C. S. of Arbitrary Waveform Generator JJF 1152	1Hz~1GHz	$U_{\text{rel}}=4\times 10^{-7}$		
		Amplitude	650201		1mV~20V	$U_{\text{rel}}=0.2\%$		
		Distortion	650201		(0.01~30)% (20Hz~100kHz)	$U_{\text{rel}}=15\%$		
		FM	650201		(0.1~400) kHz	$U_{\text{rel}}=1.3\%$		
		AM	650201		1%~99%	$U_{\text{rel}}=1.3\%$		
44	*Capacitor Dielectric Loss Meters	Dielectric Loss	650309	Calibration Specification of Capacitor Dielectric Loss Meters JJF 1095	0.005%~10%	$U=1.0\%$		
		Capacitance	650309		100pF	$U_{\text{rel}}=0.5\%$		
45	LF Electronic Voltmeter	AC Voltage	650105	Verification Regulation of LF Electronic Voltmeter JJG 782	1mV~32.999mV, (10~45)Hz	$U_{\text{rel}}=0.6\%$		
					1mV~32.999mV, 45Hz~10kHz	$U_{\text{rel}}=0.5\%$		
					1mV~32.999mV, (10~20) kHz	$U_{\text{rel}}=0.5\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					1mV~ 32.999mV, (20~50) kHz	$U_{rel}=0.5\%$		
					1mV~ 32.999mV, (50~100) kHz	$U_{rel}=0.6\%$		
					1mV~ 32.999mV, (100~500) kHz	$U_{rel}=0.8\%$		
					33mV~ 329.999mV, (10~45) Hz	$U_{rel}=0.6\%$		
					33mV~ 329.999mV, 45Hz~10kHz	$U_{rel}=0.5\%$		
					33mV~ 329.999mV, (10~20) kHz	$U_{rel}=0.5\%$		
					33mV~ 329.999mV, (20~50) kHz	$U_{rel}=0.5\%$		
					33mV~ 329.999mV, (50~100) kHz	$U_{rel}=0.6\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					33mV~ 329.999 mV, (100~ 500) kHz	$U_{rel}=0.8\%$		
					330mV~ 3.29999 V, (10~ 45) Hz	$U_{rel}=0.6\%$		
					330mV~ 3.29999 V, 45Hz~ 10kHz	$U_{rel}=0.4\%$		
					330mV~ 3.29999 V, (10~ 20) kHz	$U_{rel}=0.4\%$		
					330mV~ 3.29999 V, (20~ 50) kHz	$U_{rel}=0.5\%$		
					330mV~ 3.29999 V, (50~ 100) kHz	$U_{rel}=0.5\%$		
					330mV~ 3.29999 V, (100~ 500) kHz	$U_{rel}=0.7\%$		
					3.3V~ 32.9999 V, (10~ 45) Hz	$U_{rel}=0.6\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					3.3V~ 32.9999 V, 45Hz~ 10kHz	$U_{rel}=0.4\%$		
					3.3V~ 32.9999 V, (10~ 20)kHz	$U_{rel}=0.5\%$		
					3.3V~ 32.9999 V, (20~ 50)kHz	$U_{rel}=0.5\%$		
					3.3V~ 32.9999 V, (50~ 100)kHz	$U_{rel}=0.7\%$		
					33V~ 300V, 45Hz~ 1kHz	$U_{rel}=0.5\%$		
					33V~ 300V, (1~ 10)kHz	$U_{rel}=0.4\%$		
					33V~ 300V, (10~ 20)kHz	$U_{rel}=0.4\%$		
46	*LCR Meter	Inductance	650312	Verification Regulation of GR1658 RLC Digital Bridge JJG	0.1mH, 1 kHz	$U_{rel}=0.25\%$		
					(1mH~ 1H), 1kHz	$U_{rel}=0.15\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
				(Electronics)0 5020	(10 μH~100 μH), 1kHz	$U_{rel}=6\%$		
			Capacitance		650312	(0.1nF~100 μF), 1kHz		
		Resistance	650312		(10mΩ~1Ω), 1kHz	$U_{rel}=0.6\%$ ~6%		
					(1Ω~10Ω), 1kHz	$U_{rel}=0.11\%$		
					(10Ω~10kΩ), 1kHz	$U_{rel}=0.064\%$ %~0.15%		
					(10kΩ~100kΩ), 1kHz	$U_{rel}=0.15\%$		
		Frequency	650312		100Hz~1MHz	$U_{rel}=0.05\%$		
47	*Inductance Meter	Inductance	650310	Verification Regulation of GR1658 RLC Digital Bridge JJG (Electronics)0 5020	0.1mH, 1kHz	$U_{rel}=0.25\%$		
					1mH~1H, 1kHz	$U_{rel}=0.15\%$		
					10 μH~100 μH, 1kHz	$U_{rel}=6\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
48	*Capacitance Meter	Capacitance	650311	Verification Regulation of GR1658 RLC Digital Bridge JJG (Electronics)05020	(0.1nF ~100 μF), 1kHz	$U_{rel}=0.3%$ ~6%		
49	Standard Capacitors (Box)	Capacitance	650305	Verification Regulation of Standard Capacitors JJG 183	10pF~1000nF, 1kHz	$U_{rel}=0.09%$		
50	Standard Inductors (Box)	Inductance	650308	Verification Regulation of Standard Inductors JJG 726	100 μH~1H, 1kHz	$U_{rel}=0.07%$		
51	Automatic Transformer Test System	Resistance	650505	Verification Regulation of Alternating Current Bridge JJG 441, Verification Regulation of YG Series Coil Number Tester SJ 20241	10mΩ ~ 1Ω, 1kHz	$U_{rel}=0.6%$ ~6%		
					1Ω ~ 10Ω, 1kHz	$U_{rel}=0.11%$		
					10Ω ~ 10kΩ, 1kHz	0.064%~0.15%		
		10kΩ ~ 100kΩ, 1kHz	$U_{rel}=0.15%$					
		0.1nF ~ 100 μF, 1kHz	$U_{rel}=0.3%$ ~6%					
		10kΩ ~ 100kΩ, 1kHz	$U_{rel}=0.25%$					
		1mH ~ 1H, 1kHz	$U_{rel}=0.15%$					
10 μH ~ 100 μH, 1kHz	$U_{rel}=6%$							

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Turn Ratio	650312		(1~1000) T	$U_{rel}=0.10\%$		
		Frequency	650312		100Hz~200kHz	$U_{rel}=0.010\%$		
52	*Transistor DC and Low Frequency Parameter Tester	DC Voltage	650501	Verification Regulation of Transistor DC and Low Frequency Parameter Tester JJG 725	(0.01~0.1)V	$U_{rel}=0.1\%$		
					(0.1~1)V	$U_{rel}=0.15\%$		
					(1~10)V	$U_{rel}=0.12\%$		
					(10~100)V	$U_{rel}=0.15\%$		
		DC Current	650501		(100~1000)V	$U_{rel}=0.20\%$		
					(0.001~0.01)A	$U_{rel}=0.35\%$		
					(0.01~0.1)A	$U_{rel}=0.15\%$		
		AC Voltage	650501		(0.1~1)A	$U_{rel}=0.28\%$		
					(0.01~1000)V, (45Hz~1kHz)	$U_{rel}=0.6\%$		
Frequency	650501	1kHz	$U_{rel}=0.10\%$					
53	*Electrical Surge Generator	Voltage	701030	Calibration Specification of Electrical Surge Generator JJF (Electronics) 30803	(0.5~20)kV	$U_{rel}=3.0\%$		Expansion
		Short-circuit current	701030		100A~3000A	$U_{rel}=5.0\%$		
		Time	701030		1 μ s~1ms	$U_{rel}=3\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
54	*Electrostatic Discharge Simulator	Voltage	701028	Calibration Specification for Electrostatic Discharge Simulators JJF 1397	(0.01~20)kV	$U_{rel}=3.0\%$		
55	A. C. Resistance Box	AC Resistance	650316	Calibration Specification for A. C. Resistance Box JJF1636	(0.001~1) Ω , (100 Hz, 1kHz, 10kHz)	$U_{rel}=5.8\%$ $\sim 0.3\%$		
					(1~10) Ω , (100 Hz, 1kHz, 10kHz)	$U_{rel}=0.1\%$ $\sim 0.3\%$		
					(10~100) Ω , (100 Hz, 1kHz, 10kHz)	$U_{rel}=0.1\%$ $\sim 0.06\%$		
					(0.1~1)k Ω , (100 Hz, 1kHz, 10kHz)	$U_{rel}=0.06\%$		
					(1~10)k Ω , (100 Hz, 1kHz, 10kHz)	$U_{rel}=0.06\%$		
					(10~100)k Ω , (100 Hz, 1kHz, 10kHz)	$U_{rel}=0.06\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
					(0.1~1)MΩ, (100Hz, 1kHz, 10kHz)	$U_{rel}=0.06\%$		
56	*Circuit breaker for time-delay checking table	Time	041602	Specification of Calibration for Circuit breaker for time-delay checking table JJF (zhe) 1078	0.1s~9999s	$U=0.1s$		Expansion
		Current	041602		(10~1000) A	$U_{rel}=0.3\%$		
57	*Transformer Winding Deformation Testers	Frequency	650199	Calibration Specification for Transformer Winding Deformation Testers JJF (zhe) 1138	1kHz~1MHz	$U_{rel}=6\times 10^{-7}$		Expansion
		Amplitude attenuation value	650199		(-80~20) dB	$U=0.32dB$		
58	*Passive Intermodulation Analyzers	Output Frequency	650199	Calibration Specification for Passive Intermodulation Analyzers JJF1463	869MHz~3594MHz	$U_{rel}=5\times 10^{-7}$		Expansion
		Output Power	650199		(20~48) dBm	$U=0.8dB$		
		Passive Intermodulation	650199		(-70~-120) dBm	$U=0.6dB$		
59	*Time Interval Generator	OSC. Frequency	660203	Verification Regulation of Time Interval Generator JJG 723	1MHz, 5MHz, 10MHz	$U_{rel}=5\times 10^{-8}$		Expansion
		Time interval	660203		10ns~1000s	$U=1.2\times 10^{-7}$ $T+1ns$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Voltage	660203		0.5V~10V	$U_{rel}=1.5\%$		
六、Time and Frequency								
1	High Voltage Switch Operation Characteristic Testers	time	701001	Verification Regulation of High Voltage Switch Operation Characteristic Testers JJG 1120	1ms~1000ms	0.16ms		
2	Electronic Watch Tester	Day Error	660207	Verification Regulation of Watch Tester JJG 488	(0.01~9.99)s/d	$U=0.01s/d$		
3	Electronic Stopwatch	Time	660209	V. R. of Stopwatches JJG237-2010 JJG 237	(0~3600)s	$U=0.02s$		
		Day Error	660209		(0.01~9.99)s/d	$U=0.02s/d$		
4	Mechanical Stopwatch	Time	660209	V. R. of Stopwatches JJG237-2010 JJG 237	(0~3600)s	$U=0.15s$		
5	Frequency Meters	Frequency	660105	Verification Regulation of Frequency Meters JJG 603	10Hz~20kHz	$U_{rel}=0.06\%$		
6	Speaker Fo Tester (Gen)	Frequency	630204	Verification Regulation of audio-frequency signal generator JJG 607	(0.02~3)kHz	$U_{rel}=0.2\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
7	Electronic Time Relay	Setting Time	660213	C. S. for Electronic time relay JJF 1282	1s~9999s	$U_{rel}=0.4\%$		
七、Chemistry								
1	*Polarimeter	Specific Rotation	680121	V. R. of Polarimeter and Saccharimeter JJG 536	(-34~+34) °	$U=0.005^\circ$		
2	*Emission Spectrometer	Concentration	680118	V. R. of Emission Spectrometer JJG 768	C、Si、Ni、Mn、Cr、V: (0.001~2.5)%	$U_{rel}=10\%$		
3	*Fourier Transform Infrared Spectrometers	Wave Number	680107	C. S. for Fourier Transform Infrared Spectrometers JJF 1319	(4000~400) cm^{-1}	$U=0.2 cm^{-1}$		
4	*Atomic Fluorescence Spectrophotometer	Detection Limit	680110	V. R. for Atomic Fluorescence Spectrophotometer JJG 939	As、Sb: $\leq 0.4ng$	$U=0.038ng$		
5	Hand Saccharimeter (Content-meter)	Sugar Content	680122	V. R. of Hand Saccharimeter (Content-meter) and Hand Refractometer JJG 820	(0.1~50) %	$U_{rel}=0.3\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
6	*Alarmers Detectors of Combustible Gas	Gas Concentration	680815	V. R. of Alarmers Detectors of Combustible Gas JJG 693	(0.1~100) %LEL	$U_{rel}=1.2\%$		
7	*Quadrupole Inductively Coupled Plasma Mass Spectrometers	Limit of Measuring	680303	C. S. for Quadrupole Inductively Coupled Plasma Mass Spectrometers JJF 1159	Be: \leq 30ng/L	$U=1.0ng/L$		
					In: \leq 10ng/L	$U=0.8ng/L$		
					Bi: \leq 10ng/L	$U=0.8ng/L$		
8	*Electrolyte Analyzers	Concentration	700504	V. R. of Electrolyte Analyzers JJG 1051	K: (1.50~7.50) mmol/L	$U_{rel}=2.4\%$		
					Na: (100.0~180.0) mmol/L	$U_{rel}=2.4\%$		
					Cl: (80.0~160.0) mmol/L	$U_{rel}=2.4\%$		
9	*Dispersive Infrared Spectrophotometers	Wave Number	680107	V. R. of Dispersive Infrared Spectrophotometers JJG 681	(4000~400) cm^{-1}	$U=0.2 cm^{-1}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
10	Dissolved Oxygen Meter	Concentration	680403	V. R. of Dissolved Oxygen Meters JJG 291	(0~20)mg/L	$U=0.1$ mg/L		
		temperature	680403		(0~50) °C	$U=0.3$ °C		
11	*Rotational Viscometers	Instrument Constant	680604	V. R. of Rotational Viscometers JJG 1002	(12~10 ⁵) mPa·s	$U_{rel}=1.5\%$ ~3%		
12	*Wavelength Dispersive X-Ray Fluorescence Spectrometers	Concentration	680112	V. R. for Wavelength Dispersive X-Ray Fluorescence Spectrometers JJG 810	Cd: (8.7~107) mg/kg	$U_{rel}=5.4\%$		
					Cr: (97.3~1122) mg/kg	$U_{rel}=5.4\%$		
					Hg: (91.5~1096) mg/kg	$U_{rel}=5.4\%$		
					Pb: (93.1~1122) mg/kg	$U_{rel}=5.4\%$		
13	*Ultraviolet - Visible Spectrophotometer	Wavelength	680101	V. R. of Ultraviolet, Visible, Near-Infrared Spectrophotometers JJG 178	(220~800) nm	$U=0.74$ nm		
	Transmission proportion	680101	(0~100)%		$U=0.5\%$			
14	*Atomic Absorption	Concentration	680108	V. R. for Atomic Absorption Spectrophotometer	Cu: (0.5~5.0) μg/mL	$U_{rel}=3.5\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Spectrophotometers			ters JJG694	Cd: (0.5~5.0) ng/mL	$U_{rel}=4.2\%$		
15	*Emission Spectrometer (ICP)	Concentration	680116	V. R. for Emission Spectrometer JJG768	Cr、Ni、Zn: (0.01~5.00) $\mu\text{g/mL}$; Cu、Mn、Ba: (0.01~2.50) $\mu\text{g/mL}$	$U_{rel}=4.0\%$		
16	*Carbon Sulfur Analyzer	Concentration	020308	V. R. for Carbon Sulfur Analyzer JJG 395	C: 0.120% ~ 0.448%	$U_{rel}=3.5\%$		
					C: 0.013% ~ 0.052%	$U_{rel}=4.4\%$		
17	Wood Moisture Content Measuring Meters	Concentration	680506	V. R. of Wood Moisture Content Measuring Meters JJG986	(6%~28) %	$U=1.5\%$		
18	*Chemical Oxygen Demand (COD) Meters	Temperature	680409	V. R. of Chemical Oxygen Demand (COD) Meters JJG 975	(100~200) °C	$U=0.3\text{ °C}$		
		Concentration	680409		(50~1000) mg/L	$U_{rel}=2.3\%$		
19	Zngler Viscosimeter	time	680608	V. R. of Zngler Viscosimeter JJG 742	(49~52) s	$U_{rel}=3\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
20	Flow Cups Viscosimeter	viscosity	680603	V. R. for Flow Cups Viscosimeter JJG 743	(10~685) mm ² /s	$U_{rel}=3\%$		
21	*Flame Photometer	Concentration	680120	V. R. of Flame Photometer JJG 630	Na: (0.004~1.00) mmol/L; K: (0.004~0.200) mmol/L	$U_{rel}=4.8\%$		
22	*Thermogravimetric Moisture Meters	Quality	680502	V. R. of Thermogravimetric Moisture Meters JJG 658	1mg~500g	$U=(0.1\sim 0.2)\text{mg}$		
		Concentration	680502		0~100%	$U=0.3\%$		
23	*Hazemeter	haze	670532	C. S. For Hazemeter JJF1303	(1.05~29.07)	$U=0.4$		
		transmission proportion	680532		73.4%~87.9%	$U=0.8\%$		
24	*Gel Permeation Chromatographs	molecular weight	680205	V. R. of Gel Permeation Chromatographs JJG342	$[(C_8H_8)]_n$: (1~17.24) × 10 ⁴ g/mol	$U_{rel}=3.0\%$		
					$[(C_6H_{10}O_5)]_n$: (0.1~7.38) × 10 ⁴ g/mol	$U_{rel}=9.1\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
25	*Particulate Analyzer	particle concentration	680842	C. S. for Particulate Analyzer JJF1290	(1192~4065) particle/mL	$U_{rel}=4.1\%$		
		volume	680842		(0.1~100) mL	$U_{rel}=0.2\%$		
26	*Rapid Pesticide Residue Tester	transmittance	22204	Verification Regulation of Rapid Pesticide Residue Tester JJG (Yue) 006	12%~30.9%	$U=0.7\%$		
27	Ozonation gas analyzer	Concentration	680806	V. R. of ozonation gas analyzer JJG 1077	(0.1~1.0) μ mol/mol	$U_{rel}=3.5\%$		
28	*Turbidimeters	turbidity	680402	V. R. of Turbidimeters JJG 880	(0.1~400) NTU	$U_{rel}=3.3\%$		
29	*Total Organic Carbon Analyzer	TC Concentration	680411	V. R. of Total Organic Carbon Analyzer JJG 821	TC: (0.1~1000) mg/L	$U_{rel}=1.3\%$		
		TOC Concentration	680411		TOC: (0.1~1000) mg/L	$U_{rel}=1.1\%$		
30	*Osmometers	Osmolarity	681199	V. R. of Osmometers JJG1089	(100~700) mOsmol/kg	$U=(2.2\sim3.5)$ mOsmol/kg		
31	Filter-Type Smokemeters	Smoke	700201	V. R. of Filter Type Smokemeters JJG 847	(0~10) BSU	$U=0.22$ BSU		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
32	* Energy Dispersive X-Ray Fluorescence Spectrometers	Concentration	680199	C. S. for Energy Dispersive X-Ray Fluorescence Spectrometers JJF (Min) 1047	(8.5~1122) mg/kg	$U_{rel}=9\%$		
33	*NS Analyzer	Concentration	681203	C. S. for Elemental Analyzers JJF1321	N: (1~1000) mg/L	$U_{rel}=1.7\%$		
					(0.1~10) mg/l	$U_{rel}=2.1\%$		
		Weight	681203		(0~200) g	$U=1\text{mg}$		
34	*CHN Analyzer Hydrogen Analyzer	Concentration	681207	C. S. for Elemental Analyzers JJF1321	C: (0.02~80) %	$U_{rel}=1.8\%$		
					H: (0.02~5) %	$U_{rel}=5.2\%$		
					N: (0.01~2) %	$U_{rel}=2.8\%$		
		Weight	681207		(0~200) g	$U=1\text{mg}$		
35	*ONH Analyzer	Concentration	681299	C. S. for Elemental Analyzers JJF1321	O: (0.0025~0.0048) %	$U_{rel}=6.6\%$		
					N: (0.026~0.058) %	$U_{rel}=4.0\%$		
					H: (0.0001~0.0020) %	$U_{rel}=16\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Weight	681299		(0~200) g	$U=1\text{mg}$		
36	*Carbon Monoxide Detector	gas concentration	680812	V. R. of Carbon Monoxide Detectors JJG 915	(0.1~2000) $\mu\text{mol/mol}$	$U_{\text{rel}}=1.5\%$		Expansion
		time	680812		(0.1~60) s	$U=0.5\text{ s}$		
37	*Thin layer chromatograph	concentration	680208	C. S. for Thin Layer Chromatography scanners JJF 1712	(0.001~0.5) mg/mL	$U_{\text{rel}}=3\%$		Expansion
38	*Micro oxygen analyzer	gas concentration	680801	V. R. of micro oxygen analyzer JJG 945	(0.1~10) $\mu\text{mol/mol}$	$U_{\text{rel}}=3\%$		Expansion
					(>10~1000) $\mu\text{mol/mol}$	$U_{\text{rel}}=2\%$		
		time	680801		(0.1~60) s	$U=0.5\text{ s}$		
39	*Ultraviolet fluorescence sulfur detector	concentration	681299	C. S. for ultraviolet fluorescence sulfur analyzer JJF 1685	(0.1~10) mg/L	$U=(0.2\sim 0.5)\text{ mg/L}$		Expansion
					(10~100) mg/L	$U=(0.5\sim 1.5)\text{ mg/L}$		
40	*sample for stack dust	flow	680832	V. R. of sampler for stack dust JJG 680	(0.1~60) L/min	$U_{\text{rel}}=1.7\%$		Expansion
		temperature	680832		(-40~200) $^{\circ}\text{C}$	$U=1.0\text{ }^{\circ}\text{C}$		
		pressure	680832		(-60~60) kpa	$U_{\text{rel}}=0.5\%$		
		time	680832		(0.1~3600) s	$U=0.5\text{ s}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
41	*Determinator for Total Sulfur in Coal	concentration	681202	V. R. of Determinators for Total Sulfur in Coal JJG 1006	(0.2~6)%	$U=(0.04\sim 0.2)\%$		Expansion
	temperature	681202	(0~1300) °C		$U=3.0\text{ °C}$			
42	*Kinematic viscosity tester	viscosity	680606	C. S. for kinematic viscosity tester JJF1274	(10~80000) mm ² /s	$U_{rel}=2.0\%$		Expansion
	temperature	680606	(0~100) °C		$U=0.3\text{ °C}$			
43	*Total phosphorus and total nitrogen water quality online analyzer	concentration	680499	V. R. of water quality online analyzers of total phosphorus and total nitrogen JJG 1094	P: (0.1~1000) mg/L	$U_{rel}=2.0\%$		Expansion
					N: (0.1~500) mg/L	$U_{rel}=5.0\%$		
44	*Ammonia-Nitrogen Automatic Analyzer	concentration	680413	V. R. of Ammonia-Nitrogen Automatic Analyzers JJG 631	(0.1~100) μg/mL	$U_{rel}=4\%$		Expansion
45	*Silicate Analyzers	concentration	680417	C. S. for Silicate Analyzers JJF1539	(0.01~1000) mg/L	$U_{rel}=2\%$		Expansion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
46	*Tester for Formaldehyde Content of Textile	Transmittance	052999	C. S. of tester for formaldehyde content textiles JJF(Spin)06	(0~100) %	$U=0.5\%$		Expansion
47	*Sulfur dioxide gas detector	gas concentration	680819	V. R. of sulfur dioxide gas detector JJG 551	(0.1~2000) μ mol/mol	$U_{rel}=3\%$		Expansion
		time	680819		(0.1~60) s	$U=0.5$ s		
48	*Hydrogen chloride alarm detector	gas concentration	680824	C. S. for hydrogen chloride alarm detectors JJF (ZHE) 1118	(0.1~1000) μ mol/mol	$U_{rel}=6\%$		Expansion
		time	680824		(0.1~160) s	$U=0.5$ s		
49	*Chlorine detection alarm	gas concentration	680899	C. S. for chlorine detection alarm JJF1433	(0.1~1000) μ mol/mol	$U_{rel}=3\%$		Expansion
		time	680899		(0.1~60) s	$U=0.5$ s		
50	*Analyzer for Oil Content in Water	concentration	680401	V. R. of Analyzers for Oil Content in Water JJG 950	(0.1~1000) mg/L	$U_{rel}=4\%$		Expansion
51	*Fluorescence spectrophotometer	concentration	680109	V. R. of Fluorescence Spectrophotometer JJG 537	Class A: $\leq 5 \times 10^{-10}$ g/mL	$U_{rel}=3\%$		Expansion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	meter				Class B: $\leq 1 \times 10^{-8}$ g/m	$U_{rel}=3\%$		
52	*Alarm Detector of Sulfur Hexafluoride	gas concentration	680822	C. S. for the Alarmer Detector of Sulfur Hexafluoride JJF 1263	(0.1~1000) μ mol/mol	$U_{rel}=2\%$		Expansion
		time	680822		(0.1~60) s	$U=0.5$ s		
53	*Industrial analyzer	quality	020601	V. R. of industrial analyzer JJG 1140	(0~100) g	$U=0.3$ mg		Expansion
		ash content	020601		(8.25~44) %	$U=0.3\%$		
		Volatile matter	020601		(8.3~31.68) %	$U=0.4\%$		
54	*Dust sampler	flow	680831	V. R. of Dust Sampler JJG 520	(0.1~80) L/min	$U_{rel}=2\%$		Expansion
		time	680831		(0.1~3600) s	$U=0.5$ s		
55	*Residual Chlorine Meter	concentration	680420	C. S. for Residual Chlorine Meters JJF 1609	(0.1~100) mg/L	$U_{rel}=2.5\%$		Expansion
56	*Phosphate analyzer	concentration	680418	C. S. for Phosphate Analyzers JJF 1567	(0.1~1000) mg/L	$U_{rel}=3\%$		Expansion
57	*Sulfide Hydrogen gas detector	gas concentration	680821	V. R. of hydrogen sulfide gas detectors JJG 695	(0.1~500) μ mol/mol	$U_{rel}=3\%$		Expansion
		time	680821		(0.1-90) s	$U=0.5$ s		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
58	*Oxygen Gas Permeability Characteristic	Permeability	680199	C. S. for oxygen gas permeability characteristics JJF(YU) 248	(10-65) cm ³ /m ² ·24h	$U_{rel}=5.8\%$		Expansion
59	*Online pH meter	PH value	680702	C. S for Online pH meter JJF 1547	Electricity meter (pH) : (0~14)	$U=0.001$		Expansion
		voltage	680702		Instrument (pH) : (0~14)	$U=0.02$		
					(-1999~1999) mv	$U=0.1mv$		
60	*Liquid Chromatography Atomic Fluorescence Spectrometer	concentration	680399	Verification regulation of Liquid Chromatography Atomic Fluorescence Spectrometer JJG 1151	As (V) : < 1.0ng	$U_{rel}=6\%$		Expansion
					MMA: < 0.7ng	$U_{rel}=6\%$		
					DMA: < 0.7ng	$U_{rel}=6\%$		
		flow	680399		(0.1~10) L/min	$U=1.0\%FS$		
61	*Liquid chromatography-mass spectrometry	Signal-to-noise ratio	680305	calibration Specification for LC-MS JJF 1317	10: 1~10000: 1	$U_{rel}=11\%$		Expansion
		Mass number	680305		(0.1~2242.64)u	$U=0.1u$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
62	Dust particle counter	Particle concentration	680837	Calibration specification for dust particle counter JJF 1190	(10~100000) \uparrow /28.3	$U_{rel}=14\%$		Expansion
		time	680837		(0.1~3600) s	$U=0.5s$		
		flow	680837		(0.1~100) L/min	$U_{rel}=2\%$		
63	*Automobile emission gas tester	gas concentration	700203	Verification regulation of vehicle automobile emission gas tester JJG 688	HC: (1~950) μ mol/mol	$U_{rel}=1.5\%$		Expansion
					C0: (0.522~7.89) \times 10 ⁻² mol/mol	$U_{rel}=1.7\%$		
					C02: (3.62~12.3) \times 10 ⁻² mol/mol	$U_{rel}=1.6\%$		
					O2: (0.478~19.9) \times 10 ⁻² mol/mol	$U_{rel}=2.2\%$		
					NO: (1~900) μ mol/mol	$U_{rel}=1.4\%$		
		time	700203		(0.1~60) s	$U=0.5s$		
64	*PH calibrator	Voltage	680705	Verification regulation of pH meter JJG919	(-2000~2000) mV	$U_{rel}=0.01\%$		Expansion

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
		PH value	680705		pH: (0~ 14)	$U=0.0002$		
		resist ance	680705		(0.1~ 3)G Ω	$U_{rel}=3\%$		
65	*Ion Chroma tograph	Minimu m detect ion concen tratio n	680284	Verification regulation of JJG 823	$Cl^- \leq$ 0.02 μ g/mL	$U_{rel}=6\%$		Expans ion
					$NO_3^- \leq$ 0.02 μ g/mL	$U_{rel}=1.5\%$		
					$I^- \leq$ 0.02 μ g/m	$U_{rel}=3\%$		
		temper ature	680240		(0~ 100) $^{\circ}C$	$U=0.5^{\circ}C$		
		flow	680240		(0.1~ 10) L/min	$U_{rel}=2\%$		
66	*pH Meter in labora tory	Acidit y	680701	Verification regulation of pH meter in laboratory JJG 119	instrum ent (pH): (0~ 14)	$U=0.02$		Expans ion
					Electri city meter (pH) : (0-14)	$U=0.002$		
		Voltag e	680701		(-1999 ~1999) mV	$U=0.1mV$		
		resist ance	680701		(0.1~ 3) G Ω	$U_{rel}=3\%$		
67	*Autom atic potent	potent ial	680704	Verification regulation of automatic	(-2000 ~2000) mV	$U=0.13mV$		Expans ion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	iometric titrator	Burette capacity	680704	potentiometric titrator JJG814	(0~100)mL	$U=0.028\text{mL}$		
68	*Electrolytic Conductivity Meters	conductivity	680709	Electrolytic Conductivity Meters JJG376	Electronic: (0.5~10000) $\mu\text{S/cm}$	$U=0.08\%\text{FS}$		Expansion
		conductivity	680709		Instrument: (0.5~10000) $\mu\text{S/cm}$	$U=0.18\%\text{FS}$		
		temperature	680709		(0~100) °C	$U=0.5^\circ\text{C}$		
69	*Gas chromatograph	Detection limit	680201	Verification regulation of gas chromatograph JJG700	FID: $\leq 0.5\text{ng/s}$	$U_{\text{rel}}=4.6\%$		Expansion
					FPD: $\leq 0.5\text{ng/s}$ (S); $\leq 0.1\text{ng/s}$ (P)	$U_{\text{rel}}=4.6\%$		
					NPD: $\leq 5\text{pg/s}$ (N); $\leq 10\text{pg/s}$ (P)	$U_{\text{rel}}=4.6\%$		
		ECD: $\leq 5\text{pg/mL}$	$U_{\text{rel}}=4.8\%$					
		TCD: $\geq 800\text{mV}\cdot\text{mL/mg}$	$U_{\text{rel}}=3.8\%$					
		(0~300) °C	$U=0.5^\circ\text{C}$					
sensitivity	680201	(0.1~100) mL/min	$U_{\text{rel}}=2.0\%$					
temperature	680201							
Carrier gas velocity	680201							

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
70	*Liqui d chroma tograph	Detect ion limit of UV visibl e / diode array detect or	680203	Verification regulation of liquid chromatograph JJG705	\leq 50pg/mL	$U_{rel}=6.0\%$		Expans ion
		Detect ion limit of fluore scent detect or	680203		\leq 5pg/mL	$U_{rel}=5.2\%$		
		Detect ion limit of differ ential refrac tive index detect or	680203		$\leq 5 \mu$ g/mL	$U_{rel}=5.1\%$		
		flow	680203		(0.1~ 10) L/min	$U_{rel}=2.0\%$		
		temper ature	680203		(0~ 100) °C	$U=0.5^{\circ}C$		
71	*Bench type GC-MS	Signal -to-no ise ratio	680304	calibration of Specification for gas chromatography -mass	EI 源: $\geq 10:1$	$U_{rel}=8.8\%$		Expans ion
					正 CI 源: \geq 10:1	$U_{rel}=8.8\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
				spectrometry JJF 1164	负 CI 源: \geq 100:1	$U_{rel}=8.8\%$		
		Mass number	680304		(0.1~ 700) u	$U=0.10u$		
		temper ature	680304		(0~ 300) °C	$U=0.5^{\circ}C$		
72	*Karl Fischer coulom etric moistu re analyz er	concen tratio n	680507	Verification regulation of Karl Fischer coulometric moisture analyzer JJG 1044	10 μ g~ 10mg	$U_{rel}=3\%$		Expans ion
73	*Total susten ded partic le sample r	flow	680835	Verification regulation of total suspended particle sampler JJG 943	(0.1~ 1400) L/min	$U_{rel}=1.7\%$		Expans ion
		time	680835		(0.1~ 3600) s	$U=0.5s$		
		pressu re	680835		(1~ 120) kpa	$U=0.5\%$		
74	*Elect rochem ical oxygen meter	oxygen conten t	680802	Verification regulation of electrochemica l oxygen analyzer JJG365	(50.1 ~300) mmol/mo l	$U_{rel}=1.4\%$		Expans ion
		time	680820		(0.1~ 60) s	$U=0.5s$		
75	*Photo ioniza tion detect or for volati le organi c compou nds	concen tratio n	680807	Calibration specification for photoionizatio n detector of volatile organic compounds JJF 1172	(200~ 794) μ mol/mol	$U_{rel}=3\%$		Expans ion
		time	680807		(0.1~ 60) s	$U=0.5s$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
76	*	concentration	680811	Verification regulation of carbon monoxide and carbon dioxide infrared gas analyzers JJG635	CO: (0.1~10000) μ mol/mol ; CO ₂ : (0.1~100000) μ mol/mol	$U_{rel}=1.3\%$		Expansion
		time	680811		(0.1~60) s	$U=0.5s$		
77	*flue gas analyzer	concentration	680830	Verification regulation of flue gas analyzer JJG968	CO: (0.1~10000) μ mol/mol	$U_{rel}=1.3\%$		Expansion
					NO: (301~3000) μ mol/mol	$U_{rel}=1.3\%$		
					SO ₂ : (200~803) μ mol/mol	$U_{rel}=1.9\%$		
					O ₂ : (50.1~300) mmol/mol	$U_{rel}=1.4\%$		
		time	680830		(0.1~60) s	$U=0.5s$		
78	*Formaldehyde gas detector	concentration	680805	Verification regulation of formaldehyde gas detector JJG1022	(0.1~10) μ mol/mol	$U_{rel}=6.0\%$		Expansion
		time	680805		(0.1~180) s	$U=0.5s$		
79	*Ammonia detector	concentration	680820	Verification regulation of ammonia	(0.1~1010) μ mol/mol	$U_{rel}=3\%$		Expansion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	or	time	680820	detector JJG1105	(0.1~180) s	$U=0.5s$		
80	*Vinyl chloride gas detection alarm	concentration	680899	Verification regulation of vinyl chloride gas detector JJG 1125	(0.1~100) μ mol/mol	$U_{rel}=3\%$		Expansion
		time	680899		(0~160) s	$U=0.5s$		
81	*Ion meter	concentration	680703	Verification regulation of laboratory ion meter JJG 757	pX: 0.001~14.000	$U=(0.002\sim0.02)pX$		Expansion
		Voltage	680703		(-2000~2000)mV	$U=0.1mV$		
		temperature	680703		(0~100) $^{\circ}C$	$U=0.5^{\circ}C$		
82	*Mercury analyzer	Mercury concentration	680124	Verification regulation of mercury detector JJG 548	Absorption: (0.1~30.0) ng	$U_{rel}=3.2\%$		Expansion
					荧光类: (0~3) ng	$U_{rel}=4.6\%$		
83	*Nitrogen determination instrument	Nitrogen concentration	681204	Calibration specification of element analyzer JJF 1321	(0.001~100)%	$U_{rel}=(3.0\sim6.0)\%$		Expansion
		Sampling quality	681204		(0~200) g	$U=1mg$		
84	*air sampler	flow	680834	Verification regulation of air sampler JJG956	(0.1~6.0) L/min	$U_{rel}=1.7\%$		Expansion
		time	680834		(0.1~3600) s	$U=0.5s$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		temperature	680834		(0~100) °C	$U=0.5^{\circ}\text{C}$		
85	*Laser particle size analyzer	granularity	680841	Calibration specification for laser particle size analyzer JJF 1211	(0.4~5) μm	$U_{\text{rel}}=6.0\%$		Expansion
					(5~20) μm	$U_{\text{rel}}=4.3\%$		
					(20~100) μm	$U_{\text{rel}}=3.0\%$		
86	*Liquid particle counter	count	680840	Verification regulation of liquid particle counter JJG1061	(10~10 ⁷)	$U_{\text{rel}}=8\%$		Expansion
		granularity	680840		(2.1~100) μm	$U_{\text{rel}}=4\%$		
87	*Specific surface area tester by nitrogen adsorption method	specific surface area	681103	C. S for nitrogen adsorption specific surface area tester STJF1031	(0.221~898) m ² /g	$U_{\text{rel}}=3\%$		Expansion
		Vtotal	681103		(0.806~0.982) cm ³ /g	$U_{\text{rel}}=3.3\%$		
		Average pore size	681103		(7.69~14.21) nm	$U_{\text{rel}}=2.4\%$		
八、Optics								
1	Colour Temperature Meters	Colour Temperature	610507	Verification Regulation of Colour Temperature Meters JJG 212	2856K	$U=22\text{K}$		
					3000K	$U=30\text{K}$		
					6598K	$U=118\text{K}$		
2	Headlamp Testers for Motor Vehicle	light intensity	700207	Verification Regulation of Headlamp Testers for Motor Vehicle JJG 745	(5~60) kcd	$U_{\text{rel}}=3.0\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
3	*Light color electricity integrated analysis system	Luminous Flux	670119	C. S. of Light color electricity integrated analysis system STJF 1004	(10~10000) lm	$U_{rel}=2.0\%$		
		Color temperature	670119		(2500~3500)K	$U=26K$		
		Wavelength	670119		(250~600)nm	$U=0.5nm$		
		chromaticity coordinate	670119		x、y: (0~1)	$U=0.03$		
4	*Clarity Test Equipment	illuminance	670106	C. S. for Clarity Test Equipment JJF 1287	(10~3000) lx	$U_{rel}=5.3\%$		
		Time	660212		(0~100) s	$U=0.3s$		
5	Light meter	Illumination	670105	V. R. of Light meter JJG 245	(10~3000) lx	$U_{rel}=2.2\%$	Except for Standard	
6	*Colorimeters and Color Difference Meters	Chromaticness	670203	V. R. of Colorimeters and Color Difference Meters JJG 595	Y:0~100	$U=2.2$		
					x, y: (0~1)	$U=0.005$		
7	*Whiteness meter	Whiteness	670202	V. R. of Whiteness-meter JJG 512	Wb: (65~95)	$U=2.2$	Except for the working standard whiteboard	

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
8	*Specular Gloss meters	Specular Gloss	670528	V. R. of Specular Gloss Meter And Gloss plates JJG 696	(0~100)GU	$U=1.5GU$	Except for Standard	
9	*Reflectance Photometer	Whiteness	680104	V. R. of Reflectance Photometer JJG(light industry) 48	Wb: (65~95)	$U=2.2$	Except for the error of mirror	
		Chromaticness	680104		Y:0~100	$U=2.2$		
					x, y: 0~1	$U(x),U(y)=0.005$		
10	*Abbe refractometer	refractive index	670519	Verification Regulation of Abbe Refractometer JJG625	(1.3330~1.6580) nD	$U_{rel}=0.016\%$		
11	*Semiautomatic Clinical Chemistry Analyzers	Absorbance	680999	Verfication Regulation of Semiautomatic Clinical Chemistry Analyzers JJG 464	(0.1~1.0)Abs	$U_{rel}=2.8\%$		
		Wave length	680999		(340~700)nm	$U=1nm$		
12	*ELISA Analytical Instruments	absorbance	700506	V. R. of ELISA Analytical Instruments JJG861	(0.187~1.605) Abs	$U=0.013Abs$		
		wave length	700506		(405~620) nm	$U=1.2nm$		
13	Lumina Memter	lumina nce	670107	V. R. of Lumina nce Memter JJG211	(25~1000) cd/m^3	$U_{rel}=5.2\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		chroma	670107		x : (0.1544~0.7274) y: (0.0491~0.4664)	$U=0.02$		
14	*Standard Light Sources Boxes	Illumination	670106	C. S. for Standard Light Sources Boxes JJF (Spin) 055	(50~3000) lx	$U_{rel}=5.3\%$		
		Color temperature	670106		(2300~7000) K	$U=120K$		
15	*Light and Weather Fastness Testers	Temperature	700127	C. S. for Light and Weather Fastness Testers JJF (Spin) 051	(60~300) °C	$U=0.3^{\circ}C$		
		Irradiance	700127		(35~150) W/m ²	$U_{rel}=13\%$		
16	*Xenon arc lamp climate aging test equipment	Irradiance	610314	C. S for irradiance parameters of xenon arc lamp artificial climate aging test device JJF 1525	0.01uw/c m ² ~200w/m ²	$U_{rel}=13\%$		Expansion
17	*Diffuse transmission densitometer	density	670526	Verification regulation of diffuse transmission densitometer JJG 920	(0~4.0)	$U=0.020$		Expansion
18	*opacimeter	Absorption ratio	700202	Verification regulation of opacimeter JJG976	(19.17~67.03)%	$U=0.7\%$		Expansion
		temperature	700202		(10~150) °C	$U=0.5^{\circ}C$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
19	*Distribution photometer	light intensity	680199	C. S for Distribution photometer STJF1030	(10~1000) cd	$U_{rel}=3.0\%$		Expansion
		illumination	680199		(10~3000) lx	$U_{rel}=3.0\%$		
		angle	680199		(0~360) °	$U=0.3^\circ$		
		Color temperature	680199		(2856~6598) K	$U=26K$		
		Color coordinates	680199		(0.0197~0.7271)	$U=0.03$		
		wavelength	680199		(250~600) nm	$U=0.5nm$		
		Luminous flux	680199		(10~11112) lm	$U_{rel}=2.5\%$		
20	*Lovibond Comparable Colorimeter	Lovibond chroma	670206	V. R of Lovibond Comparable Colorimeter JJG 758	(0.1~70)	$U=0.7\text{Lovibond chroma}$		Expansion
21	Ultraviolet Radiometers	Irradiance	670401	Ultraviolet Radiometers JJG879	UV-A1: (0.1~10000) $\mu\text{W}/\text{cm}^2$)	$U_{rel}=13\%$		Expansion
					UV-365: (0.1~10000) $\mu\text{W}/\text{cm}^2$)	$U_{rel}=13\%$		
					UV-310: (0.1~5000) $\mu\text{W}/\text{cm}^2$)	$U_{rel}=13\%$		

No.	instru- ment	Measu- rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans- ion or change
					UV-254: (0.1~ 5000) $\mu\text{w}/\text{cm}^2$)	$U_{\text{rel}}=13\%$		
九、Acoustics								
1	*Elect- ro- Acoust- ical Measur- ing Instru- ments for Teleph- one Set	Freque- ncy	650604	V. R. of Electro- acoustical Measuring Instrument for Telephone Set JJG 869	(100~ 8000)Hz	$U_{\text{rel}}=0.2\%$	Accred- ited only for part of signal source	
		Amplit- ude Respon- se	650604		(0.5~ 10)V, 100Hz~ 8000Hz	$U=0.3\text{dB}$		
2	*Calib- ration Specif- ication for Electro- acoust- ical Measur- ement Instru- ments	Sound Pressu- re Level	650604	Calibration Specification for Electro-acoust- ical Measurement Instruments JJF 1339	(74, 84, 94, 104, 114) dB, 1kHz	$U=0.6\text{dB}$		
		Freque- ncy	650604		20Hz~ 20kHz	$U_{\text{rel}}=0.1\%$		
		Amplit- ude Respon- se	650604		(0.5~ 10)V, 20Hz~ 20kHz	$U=0.3\text{dB}$		
		Distor- tion	650604		(0.01 ~ 30)%, 20 Hz~ 20kHz	$U_{\text{rel}}=1.5\%$		
3	*Sound Level Meters	Sound Pressu- reLeve- l	630107	Verification Regulation Sound Level Meters JJG 188	(74, 84, 94, 104, 114) dB, 1kHz	$U=0.4\text{dB}$		
十、Special Equipment								

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
1	*Falling Weight Impact Testing Machines	length	621099	Calibration Specification for Falling Weight Impact Testing Machines JJF1445	(0~1300)mm	$U=1.2\text{mm}$		
		Mass	621009		(0.25~16)kg	$U=2.0\text{g}$		
		Speed	621009		(5~9)m/s	$U_{\text{rel}}=1\%$		
2	*Vibro-moulding compactor	Force	700825	Verification Regulation of Vibro-moulding compactor JJG(Transportation)088	(1890~1910)N	$U_{\text{rel}}=0.4\%$		
		Frequency	700825		(28~30)Hz	$U_{\text{rel}}=2.8\%$		
		length	700825		(19.8~398.5)mm	$U=0.05\text{mm}$		
3	*Load Wheel Tester for Asphalt Slurry Mixture	length	700856	Verification Regulation of Load Wheel Tester for Asphalt Slurry Mixture JJG(Transportation)091	(3.0~381)mm	$U=0.13\text{mm}$		
		Mass	700856		(56.2~57.2)kg	$U=60\text{g}$		
4	*Wet Track Abrasion Tester for Asphalt Emulsion Slurry Mixture	Rotate Speed	700856	Verification Regulation of Wet Track Abrasion Tester for Asphalt Emulsion Slurry Mixture JJG(Transportation)090	(60~142)r/min	$U=0.3\text{r/min}$		
		Mass	700856		(2.25~2.29)kg	$U=4.5\text{g}$		
		length	700856		(3~280)mm	$U=0.13\text{mm}$		
5	*Impact	length	700199	Calibration Specification	(0~500)mm	$U=0.05\text{mm}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Testing Machines For Footwear	Speed	700199	for Impact Testing Machines For Footwear JJF (Min) 1065	(0~200) r/min	$U=1\text{r/min}$		
6	*Flow Table for Determine Cement Mortar Fluidity	Mass	700808	Verification Regulation of Flow Table for Determine Cement Mortar Fluidity JJG (Transportation) 096-2009	(4.2~4.5) kg	$U=50\text{g}$		
		Time	700808		(29~31) s	$U=0.2\text{s}$		
		length	700808		(9.8~10.2) mm	$U=0.04\text{mm}$		
7	*Air Entrainment Meter of Freshly Mixed Concrete by The Volumetric Method	Pressure	700807	Verification Regulation of Air Entrainment Meter of Freshly Mixed Concrete by The Volumetric Method JJG (Transportation) 094	(0~2.5) MPa	$U=0.01\text{MPa}$		
8	*Rotating Cylindrical Drum Abrasion Machine	length	620718	Calibration Specification for Rotating Cylindrical Drum Abrasion Machine JJF (Min) 1067	(50~300) mm	$U=0.13\text{mm}$		
		Time	620708		(123~129) s	$U=0.2\text{s}$		
		angle	620708		(2.5~3.5) °	$U=0.3^\circ$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
9	*Wheel Dynamic Balancers	Minimum reachable residual imbalances	700212	Calibration Specification for Wheel Dynamic Balancers JJF1151	(0~200)g•mm/kg	$U=4.5g\cdot mm/kg$		
10	*Cement Mortar mixer	Rotate Speed	700899	Verification Regulation for cementMortar mixer complying JJG (Building materials) 123	(57~295)r/min	$U=1.7r/min$		
		Time	700899		(0~305)s	$U=0.92s$		
		length	700899		(135~203)mm	$U=0.26mm$		
11	*cement mortars mixer	Rotate Speed	700816	Verification Regulation of cement mortars mixer JJG (Building materials) 102	(62~143)r/min	$U=1.7r/min$		
		Time	700816		(175~185)s	$U=0.92s$		
		length	700816		(127.2~196)mm	$U=0.26mm$		
12	*Apparatus for Time of Setting of Concrete Mixture by Penetration Resistance	Force	700814	Verification Regulation of Apparatus for Time of Setting of Concrete Mixture by Penetration Resistance JJG (Transportation) 095	(10~1000)N	$U_{rel}=0.4\%$		
		length	700814		(5.04~160.6)mm	$U=(0.003\sim 0.1)mm$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
13	*Appar antus of Abrasi on Resist ance for Cement Mortar and Concre te	Force	700817	Verification Regulation of Apparantus of Abrasion Resistance for Cement Mortar and Concrete JJG(Transporta tion)097	(10~ 500)N	$U_{rel}=0.4\%$		
		Rotate Speed	700817		(5~ 1000)r/ min	$U_{rel}=0.5\%$		
		length	700817		(0~ 200)mm	$U=(0.005~0.1)mm$		
14	*Instr ument of Testin g Mortar -stren gth by Penetr ation Resist ance Method	Force	700899	Calibration Specification for Instrument of Testing Mortar-strengt h by Penetr ation Resistance Method JJF1372	(10~ 1000)N	$U_{rel}=0.4\%$		
		length	700899		(0~ 40.1)mm	$U=0.05mm$		
15	*Test Appara tus for Permea bility Coeffi cient of Asphal t Mixtur es	Capaci ty	700866	Verification Regulation of Test Apparatus for Permeability Coefficient of Asphalt Mixtures JJG(Transporta tion)104	(0~ 1000)mL	$U=0.8mL$		
		length	700866		(9.5~ 222)mm	$U=0.1mm$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
16	*Fuzzing and Pilling Tester	Coefficient of Friction	700128	C. S. for Fuzzing and Pilling Tester JJF(textile industry)053	(0.5~1.0)	$U=0.016$		
		Rotational speed	700128		(58~62)r/min	$U=0.3r/min$		
		Length	700128		(0~300)mm	$U=0.04mm$		
		Mass	700128		(0~100)g	$U=4mg$		
17	*Fabrics Fuzzing and Pilling Tester	Rotational speed	700128	C. S. for Fabrics Fuzzing and Pilling Tester JJF(textile industry)031	(59~61)r/min	$U=0.3r/min$		
		Length	700128		(39.0~90.5)mm	$U=(0.02\sim0.04)mm$		
		Mass	700128		(98~515)g	$U_{rel}=0.1\%$		
18	*Fabric Down-proof Properties	Length	700199	C. S. for Rubbing Tester of Fabric Down-proof Properties JJF(textile industry)064	(0~200)mm	$U=(0.02\sim0.04)mm$		
		Rotational speed	700199		(133~137)r/min	$U=0.3r/min$		
19	*Fabric Inductive Electrometer Meter	Length	700199	C. S. for Fabric Inductive Electrometer Meter STJF1015	(0~200)mm	$U=(0.03\sim0.04)mm$		
		Rotational speed	700199		(1000~3000)r/min	$U=0.3r/min$		
		Time	700199		(29.5~30.5)s	$U=0.3s$		
		DC Voltage	700199		(100~1000)v	$U_{rel}=0.7\%$		
20	*Fabric Air	Pressure	700139	C. S. for Fabric Air	(0.5~5)kPa	$U_{rel}=2\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Permeability Measuring Instrument	Length	700139	Permeability Measuring Instrument JJG(纺织) 047	(0~150)mm	$U=0.04\text{mm}$		
21	*Glow-wire Apparatus	Temperature	701049	Calibration Specification for Glow-wire Apparatus JJF(Zhe)1050	(950~970)°C	$U=2.0^{\circ}\text{C}$		
		Length	701049		(2~100)mm	$U=(0.1\sim 0.3)\text{mm}$		
		Force	701049		(1~20)N	$U=0.3\text{N}$		
		Time	701049		(0~60)s	$U=0.4\text{s}$		
22	*Vertical method crease elastic instrument	Force	700131	V. R. of Vertical method crease elastic instrument JJG (textile industry) 041	(9.95~10.05)N	$U=0.01\text{N}$		
		Time	700131		(0.01~3600)s	$U=0.3\text{s}$		
		Length	700131		(17.5~18.5)mm	$U=0.04\text{mm}$		
		Angle	700131		(0~180)°	$U=0.3^{\circ}$		
23	*Heat distortion and vicat softening temperature apparatus	Temperature	610302	Calibration Specification for Heat Distortion and Vicat Softening Temperature Apparatus JJF (Zhe) 1051	(50~300)°C	$U=(0.3\sim 0.5)^{\circ}\text{C}$		
		Length	600639		(0~10)mm	$U=3\mu\text{m}$		
		Mass	620102		10g~2kg	$U=(0.03\sim 3)\text{g}$		
24	*Automobile Engine Measuring Instrument	Speed of rotation	700299	V. R. of Automobile Engine Measuring Instruments Automobile	(100~7200)r/min	$U_{\text{rel}}=0.3\%$		
		angle	700299		(0~90)°	$U=1.1^{\circ}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	ments	voltage	700299	Engine Measuring Instruments JYG(traffic)013	(1~45)V	$U_{rel}=0.3\%$		
		current	700299		(10~500)A	$U_{rel}=0.3\%$		
		time	700299		(200~2000)ms	$U_{rel}=1.2\%$		
		pressure	700299		(0.1~30)MPa	$U_{rel}=0.6\%$		
		temperature	700299		(50~150)°C	$U=1^{\circ}\text{C}$		
25	*Ink Absorbency Tester for Paper and Board	area	700423	Ink Absorbency Tester for Paper and Board JYG(轻工)68	(19.6~20.4)cm ²	$U=0.07\text{ cm}^2$		
		time	700423		(115~125)s	$U=0.06\text{ s}$		
26	*Fabrics Tear Properties Instruments	Length	700107	C. S. for Fabrics Tear Properties Instruments JJF(纺织)049	(0~300)mm	$U=0.03\text{ mm}$		
		Force	700107		(5~50)N	$U_{rel}=0.3\%$		
27	*The luggage carrier shock impact tester	Spring coefficient	621019	Calibration Specification for The luggage carrier shock impact tester STJF1012	(15.79~19.29)	$U=0.28\text{ N/m}$		
		Frequency	621019		(0~50)time/s/min	$U=1\text{ time/min}$		
28	*Rotary Friction Electrostatic	Length	700199	C. S. for Rotary Friction Electrostatic Tester STJF1013	(0~150)mm	$U=(0.03\sim 0.04)\text{ mm}$		
		Rotational speed	700199		(390~410)r/min	$U=0.3\text{ r/min}$		
		Voltage	700199		(97~1030)V	$U_{rel}=0.7\%$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	Tester	Mass	700199		(490~510)g	$U=0.1g$		
29	*the winding black board Tester	Yarn density	700126	C. S. for the winding black board Tester JJF (纺织)012	(7~19)line s/cm	$U_{rel}=1\%$		
		Mass	700126		(10~50)g	$U_{rel}=1\%$		
		Length	700126		(0~300)mm	$U=0.03mm$		
30	*Capillary Effect Tester	Time	700138	C. S. for Capillary Effect Tester JJF (textile)056	(1795~1805)s	$U=0.2s$		
		Temperature	700138		(0~100)°C	$U=0.3^{\circ}C$		
		Length	700138		(0~300)mm	$U=0.03mm$		
		Mass	700138		(2.5~3.5)g	$U=4mg$		
31	*Textile Frictional Static Charges Meter	Charge	700199	C. S. for Textile Frictional Static Charges Meter STJF1014	(0.01~2.0)μC	$U_{rel}=0.4\%$		
		Length	700199		(40~100)mm	$U=0.04mm$		
32	*Testing Equipments	Intensity	700318	Calibration Specification for Rain Testing Equipments JJF (Military) 17	(0~150)mm/h	$U=0.02mm/h$		
		air speed	700318		(0~25)m/s	$U=0.7m/s$		
		Length	700318		(0.5~4.5)mm	$U=0.05mm$		
33	*Disintegration Analyzers	Length	022499	Calibration Specification for Disintegration Analyzers JJF 1449	(0~100)mm	$U=0.1mm$		
		Temperature	022499		(36~38)°C	$U=0.3^{\circ}C$		
		time	022499		(5~15)min	$U=0.2s$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
		Frequency	022499		(30~32) times/min	$U=0.3$ times/min		
34	*Fabric Thickness Instruments	Mass of Pressure foot	700120	C. S. for. Fabric Thickness Instruments JJF(Spin) 020	(0.1~4000) g	$U=0.2$ g~5g		
		Force Error of weight	700120		(50~200) cN	$U=0.3$ cN		
		Depth of parallelism Of PressureFoot and Benchmark board	700120		(0.1~6.43) mm	$U_{rel}=0.01\%$		
		Indication Error of Whole Apparatus	700120		(0~10) mm	$U=0.01$ mm		
35	*Corlour Fastness to Friction Testers	Rotational speed	700127	C. S. for Corlour Fastness to Friction Testers JJG(Spin)027	(57~63) r/min	$U=0.1$ r/min		
		Length	700127		(16±0.1) mm	$U=0.02$ mm		
		Force	700120		(8.8~9.2) N	$U=0.01$ N		
		Length	700120		(30~100) mm	$U=(0.01~0.03)$ mm		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
36	*Fabric Bursting Strength Tester	Length	700103	V. R. of Fabric Bursting Strength Tester JJF(Spin) 048	(10~300) mm	$U=(0.02\sim 0.05)\text{mm}$		
		Pressure	700103		(0~10) MPa	$U_{\text{rel}}=0.40\%$		
		Time	700103		(59~61) s	$U=0.4\text{s}$		
37	*perspiration Fastness Instruments	Length	700127	C. S. for perspiration Fastness Instruments JJF(Spin) 028	(0~300) mm	$U=(0.01\sim 0.03)\text{mm}$		
		Test template parallelism	700127		(1~10) mm	$U=(0.01\sim 0.03)\text{mm}$		
		On the plate, bottom plate flatness	700127		(1~10) mm	$U=(0.01\sim 0.03)\text{mm}$		
		Pressurization hammer gravity value	700127		(5~50) N	$U_{\text{rel}}=0.4\%$		
38	*Scorch and Sublimation Tester	Length	700127	C. S. for Scorch and Sublimation Tester JJF(Spin) 029	(0~200) mm	$U=(0.1\sim 0.3)\text{mm}$		
		Temperature	700127		(50~200) °C	$U=0.3\text{°C}$		
		Force	700127		(1~20) N	$U=0.3\text{N}$		
39	*The inclined plane fabric tiffness	Length	700104	V. R. of The inclined plane fabric tiffness tester JJF(Spin) 054	(1~200) mm	$U=U=(0.01\sim 0.03)\text{mm}$		
		Bevel angle	700104		(1~50) °	$U=0.4\text{°}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
	tester							
40	*Melt index testing machine	Temperature	040199	V. R. of Melt index testing machine JJG 878	(100~400) °C	$U=0.3^{\circ}\text{C}$		
		Quality	040119		1g~10kg	$U=0.05\text{g}\sim 5\text{g}$		
		Length	040119		Size of oral membrane: (1.170~2.110)mm	$U=5\mu\text{m}$		
		Melt Flow Rate	680609		(0.1~10)g/10min	$U=0.35\text{g}/10\text{min}$		
41	*Cement Mortar Specimen Jolting Table	Length	700828	V. R. of Cement Mortar Specimen	(14.7~15.3)mm	$U=0.03\text{mm}$		
		Time	700828		(58~62)s	$U=0.4\text{s}$		
		Mass	700828	Jolting Table JJG (Building material) 124	20kg	$U=10\text{g}$		
42	*Vibrator for Colorimeter	Frequency	700828	V. R. of cement vibrator for compacting mortar specimen JJG (Building material) 103	(10~100)Hz	$U_{\text{rel}}=0.3\%$		
		Time	700828		(115~125)s	$U=1.2\text{s}$		
		Length	700828		(0~300)mm	$U=0.5\text{mm}$		
		Mass	700828		(31.5~32.5)kg	$U=10\text{g}$		
43	*Tester of Wash Fastness	Rotate Speed	700127	C. S. for Corlour Fastness to Washing testers JJF (Spin) 026	(35~45)r/min	$U=1\%$		
		Time	700127		(10~60)min	$U=0.4\text{s}$		
		Temperature	700127		(0~100) °C	$U=0.3^{\circ}\text{C}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
44	*Fabric shrinkage tester	Rotational speed	700137	C. S. for Fabric Shrinkage Testers JJF (Spin) 052	(1~600) r/min	$U=0.3\%$		
		Temperature	700137		(1~100) °C	$U=0.3^{\circ}\text{C}$		
		Time	700137		(2~60) min	$U=2\text{s}$		
45	*AKRON friction test equipment	Pressure	700143	V. R. of AKRON friction test equipment JJG (chemical industry) 103	(1~100) N	$U_{\text{rel}}=0.5\%$		
		Rotational speed	700143		(1~300) r/min	$U_{\text{rel}}=0.3\%$		
		angle	700143		(5~35) °	$U=0.4^{\circ}$		
46	*Asphalt Mixtures Marshall Compaction Test Apparatus	Length	700833	Verification Regulation of or Asphalt Mixture's Marshall Compaction Test Apparatus JJG (traffic) 065	(0~500) mm	$U=0.05\text{mm}$		
		Mass	700833		(4527~10220) g	$U=1\text{g}$		
		Speed	700833		(60±5) times/min	$U=1\text{time}/\text{min}$		
47	*Bituminous Materials Determining Ductility	Speed	700851	V. R of Bituminous Materials Determining Ductility JJG (traffic) 023	(1±0.05) cm/min、(5±0.25) cm/min	$U=0.02\text{cm}/\text{min}$		
		Length	700851		(0~300) mm	$U=(0.05\sim 0.08)\text{mm}$		
		temperature	700851		(4.5~25.5) °C	$U=1^{\circ}\text{C}$		
48	*Comprehensive tester	Length	700199	Calbration Specification for Comprehensive	(0~300) mm	$U=(0.05\sim 0.08)\text{mm}$		
		Angle	700119		(0~180) °	$U=0.2^{\circ}$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
	for fricti on and life	Speed	700119	tester for friction and life STFJ1020	(10~ 500)tim es/min	$U_{rel}=0.2\%$		
		Force	700119		(10~ 300)N	$U_{rel}=0.5\%$		
49	*Appar aatus for Softening Point of Bitume n	Length	700852	Verification Regulation of Apparaatus for Softening Point of Bitumen JJG(Traffic) 057	(6.3~ 150)mm	$U=0.02mm$		
		Mass	700852		(3.45~ 3.55)g	$U=0.02g$		
50	*Le Chatel ier, Te ster for Determ ining Expans ion of Le Chatel ier Needle s	Length	700847	Le Chatelier, Test er for Determining Expansion of Le Chatelier Needles JJG (交 通) 093	(1.8~ 177.0)m m	$U=0.03mm$		
		Mass	700847		(299.9 ~ 300.1)g	$U=0.03g$		
51	*Mixer for cement paste	Rotati onal speed	700815	V. R. of Mjxer for cement peate JJG (Building material) 104	(10~ 200)r/m in	$U_{rel}=0.3\%$		
		Time	700815		(15~ 240)s	$U=0.4s$		
52	*Conso lidati on instru ment	Force	620725	Calibration Specification for Oedometers JJF1311	(1~ 12) kN	$U_{rel}=0.4\%$		Expans ion
		Length	620725		(0~ 10)mm	$U=9.0\mu m$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
53	*Fabric yarn length measuring instrument	Length	700116	Calibration Specification for Textile Yarn Length Tester JJF(Spin)021	(0~1000) mm	$U=0.05\text{mm}$		Expansion
54	*Verification rules for soil liquid plastic limit detector	Mass	700842	Liquid & Plastic Limit Gauge JJG(Traffic) 069	(76~100) g	$U=0.06\text{g}$		Expansion
		Angle	700842		(29~31) °	$U=3'$		
		Length	700842		(20~50) mm	$U=0.04\text{mm}$		
55	*Drug Dissolution Analyzer	Temperature	7099	Calibration Specifications for Dissolution Testers JJF (ZHE) 1096	(0~50) °C	$U=0.2\text{°C}$		Expansion
		Tachometer	7099		(20~300) r/min	$U=0.3\text{r/min}$		
56	*Rebar gauge	Length	700841	Verification rules of steel gauge gauge JJG(SU)67	(0~300) mm	$U=0.04\text{mm}$		Expansion
57	*Vertical combustion tester	Length	701024	Calibration Specification for Vertical Combustion Tester JJF (Spin) 068	(0~200) mm	$U=0.04\text{mm}$		Expansion
		Angle	701024		(24~26) °	$U=0.1\text{°}$		
		Time	701024		(0.1~1800) s	$U=0.3\text{s}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
58	Paper cutting equipment	Length	700499	Calibration Specification for Sample Cutter JJF (light industry) 114	(0~200) mm	$U=0.02\text{mm}$		Expansion
59	Concrete crack width and depth measuring instrument	Length	103801	Calibration Specification for Concrete Crack Width and Depth Measuring Instrument JJF1334	Depth: (35~100) mm	$U=1.8\text{mm}$		Expansion
					Width: (0.02~1) mm	$U=0.008\text{mm}$		
60	Concrete reinforcing bar position measuring instrument	Length	103801	Verification Regulation of Instrument for Determining Location of Concrete Reinforced Bar JJG (Traffic) 131	(12~80) mm	$U=0.8\text{mm}$		Expansion
61	*Reinforcement protective layer thickness and floor thickness	Length	600635	Calibration Specification for Reinforced Concrete Covermeter and Floorslab Thickness Tester JJF 1224	Reinforcement Diameter: (12~25) mm	$U=1\text{mm}$		Expansion
					Reinforcement Cover Thickness: (12~65) mm	$U=0.8\text{mm}$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
	ess measur ing instru ment				Floor Thickne ss Measuri ng Instrum ent: (50 ~ 300) mm	$U=0.5\text{mm}$		
62	*Box Compre ssion Tester	Force	700428	Verification Regulation of Box Compression Tester JJG(Light industry)115	(1~ 50) kN	$U_{\text{rel}}=0.4\%$		Change
		Speed	700428		(1~ 60) mm/min	$U_{\text{rel}}=0.5\%$		
		Length	700428		(0~ 100) mm	$U=0.06\text{mm}$		
63	*Burst ing Streng th tester for Paper and Board	Pressu re	700416	Verification Regulation of Bursting Strength tester for Paper and Board JJG(Light industry)61	(0.1~ 6) MPa	$U=0.2\%\text{FS}$		Change
64	*Los Angele s Testin g Machin e	Speed	700817	Verification Regulation of Los Angeles Testing Machine JJG(Traffic)10 8	(30~ 33) r/min	$U=0.4\text{r/min}$		Expans ion
		Length	700817		(45~ 715) mm	$U=0.6\text{mm}$		
		Qualit y	700817		(390~ 445) g	$U=1.2\text{g}$		
65	*Compr ession Streng th Tester for Board	Force	700401	Compression Strength Tester for Board JJG(Light industry)49	(1~ 10) kN	$U_{\text{rel}}=0.4\%$		Expans ion
		Speed	700401		(10~ 15) mm/min	$U=0.2\text{mm}/\text{min}$		

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
66	*Tension Tester for pendulum Model	Force	700412	Tension Tester for pendulum Model JJG(Light industry)58.1	(1~1000) N	$U_{rel}=0.4\%$		Expansion
		Speed	700412		(1~500) mm/min	$U_{rel}=0.12\%$		
67	*Softness Tester	Force	700419	Verification Regulation of Softness Tester JJG(Light industry)64	(10~1000) mN	$U_{rel}=0.14\%$		Expansion
		Speed	700419		(0~2) m/s	$U=0.06\text{m/s}$		
68	Rebound Test Hammer	Length	700801	Verification Regulation of Rebound Test Hammer JJG817	(0~150) mm	$U=0.03\text{mm}$		Expansion
		Force	700801		Pointer Friction: (0.2~1) N	$U=0.04\text{N}$		
		Stiffness	700801		Bounce Pull Reed Stiffness: (55~1200) N/m	$U=4\text{N/m}$		
		Rate Fixed Value	700801		0~100			
69	Portable Induction Anemometer	Wind speed	700318	Verification Regulation of Portable Induction Anemometer JJG515	(2~20) m/s	$U=0.5\text{m/s}$		Expansion

No.	instrument	Measurand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expansion or change
70	Contact Anemometer	Wind speed	700318	Verification regulation of Contact Anemometer JJG613	(2~20)m/s	$U=0.5\text{m/s}$		Expansion
71	*Grammage Tester for Paper and Board	Mass	700409	V. R. of Grammage Tester for Paper and Board JJG(light industry)54.2	(1~50)g	$U=0.004\text{g}$		
72	*Short Span Compressive Strength Tester for Paper and Board	Force	700429	Verification Regulation of Short Span Compressive Strength Tester for Paper and Board JJG(Light industry)116	(8~500) N	$U_{\text{rel}}=0.16\%$		
73	*Tear Tester For Paper and Board	Force	700418	Verification Regulation of Buoy Type Oxygen Inhalator JJG (light industry) 63	(2~16) N	$U_{\text{rel}}=0.4\%$		
		Angel	700418		(0~90) °	$U=0.2^\circ$		
		Length	700418		(0~105) mm	$U=0.05\text{mm}$		
74	*Smoothness Tester for Paper and Board	Pressure	700417	Verification Regulation of Smoothness Tester for Paper and Board JJG (light industry) 62	(-100~0) kPa	$U=0.3\%FS$		
		Time	700417		(950~1050) s	$U=0.3\text{s}$		
75	*Fogra Abrasi	Force Value	700425	Verification Regulation of	(5~30) N	$U_{\text{rel}}=2.2\%$		

No.	instru ment	Measu rand	Code of field	Title, Code of calibration method	Range	Expanded Uncertainty (k=2)	Note	Expans ion or change
	on Tester for Paper and paper board	Freque ncy	700425	Fogra Abrasion Tester for Paper and paper board JJG (light industry) 70	(155~ 165) Times /min	$U=1\text{Times}/\text{min}$		
		Angula r Veloci ty	700425		(5~ 15)° /s	$U=0.3^\circ/\text{s}$		
76	*Compr ession Streng th Tester for Corrug ated Box	Force	700428	V. R. of Compression Strength Tester for Corrugated Box JJG(light industry)115	(1~ 50)kN	$U_{\text{rel}}=0.4\%$		
77	*Flat- Rubbin g Tertter	speed	700129	C. S. for Flat-Rubbing Tertter JJF(Spin) 036	(42~ 50)r/mi n	$U=1\text{r}/\text{min}$		
		Qualit y	700129		(100~ 3000)g	$U=(1\sim 6)\text{g}$		
		Length			diamete r (1~ 122) mm	$U=0.03\text{mm}$		
					Paralle lism: (0 ~10)mm	$U=0.01\text{mm}$		