

ISO/IEC17025 Scope of certification:Electrical tests

【Testing laboratory】

No.	Title of applied accreditation	Standard/ specification number	Principal Test Condition
1	External appearance, structure, and finish (1) (3) (4)	JIS C 5402 4.1	Visual Check
2	Compatibility	JIS C 5402 4.3	Compatibility Check
3	Denotation	JIS C 5402 4.4	Visual Check
4	Withstand voltage	JIS C 5402 5.1	AC: 0-5000V DC: 0-5000V
5	Insulation resistance	JIS C 5402 5.2	Measurement range:1M Ω -50G Ω Impressed voltage:10, 100, 500, 1000V
6	Contact resistance	JIS C 5402 5.3	DC resistance (Measurement range: 0.1 m Ω - 200 Ω) (Test current: 1mA-3A) AC resistance (Measurement range: 0.1 m Ω - 200 Ω) One-way carrying of current is acceptable for DC.
7	Contact resistance under low voltage, low current	JIS C 5402 5.4	DC resistance (Measurement range: 0.1m Ω -200 Ω) (Test current: 1mA-100mA) AC resistance (Measurement range: 0.1 m Ω -200 Ω) One-way carrying of current is acceptable for DC.
8	Chattering of contacts	JIS C 5402 5.5	Electrical discontinuity ; 1 μ s, 10 μ s, 100 μ s, 1ms, 10ms
9	Electrical connectivity of the shells	JIS C 5402 5.8	DC resistance (Measurement range: 0.1m Ω - 200 Ω) (Test current: 1mA-100mA) AC resistance (Measurement range: 0.1 m Ω -200 Ω) One-way carrying of current is acceptable for DC.
10	Temperature rise	JIS C 5402 5.10	3 times at 10 minutes intervals
11	Vibration test	JIS C 5402 6.1 (JIS C 5402:1975 version is also acceptable)	Frequency:10-2000Hz Halt amplitude:0.35mm-1.5mm Acceleration:49m/s ² -196m/s ² JIS C 5402 :1975 version is also acceptable
		JISC60068-2-6	(except 6 , 7 , 9 , 10 , 11 , 12) Frequency 10 Hz to 2000 Hz Halt amplitude 0.35mm to 1.5mm Acceleration 50m/s ² to 200m/s ²
12	Impact resistance test	JIS C 5402 6.2 JISC60068-2-27	Half sine wave:294m/s ² ~981m/s ² (except 6 , 7 , 9 , 10 , 11) Acceleration 300m/s ² to 1000m/s ²
13	Repeating action (manual and automatic)	JIS C 5402 6.3	Mechanical operation ; 50,100,250,500,1000,2000,5000,10000 times
14	Gauge holding force of the contacts	JIS C 5402 6.4	Measurement range: MAX 49.00 N
15	Associative strength and removing force	JIS C 5402 6.6	Measurement range: MAX 4900 N
16	Tensile strength of cable clamp	JIS C 5402 6.7	Measurement range: MAX 4900 N Using weight is acceptable instead of pull force test machine.
17	Connecting strength of joints	JIS C 5402 6.8	Measurement range: MAX 4900 N Using weight is acceptable instead of pull force test machine.

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18	Axial strength between the attached connector and the cable and the torque	JIS C 5402 6.9	Measurement range: MAX 4900 N Measurement range: MAX 19.6 N・m
19	Structures to avoid misconnection	JIS C 5402 6.11	Measurement range: MAX 4900 N
20	Associative strength and removing force of the specimen including connecting structure	JIS C 5402 6.12	Measurement range: MAX 4900 N
21	Tensile strength of the pressure contacts	JIS C 5402 6.22	Measurement range: MAX 4900 N
22	Bumping test	JIS C 5402 6.32	Acceleration:98m/s ² ~390m/s ²
		JISC60068-2-29	(except 6 , 7 , 9 , 10 , 11) Acceleration 100m/s ² to 250m/s ²
23	Test of spraying salty water test	JIS C 5402 7.1	Temperature:+35℃ Concentration of salt solution:5%
		JISC60068-2-11	(except 5 , 9 , 11) Temperature:+35℃ Concentration of salt solution:5%
24	Change of temperature	JIS C 5402 7.2	Temperature:-65 to +200℃
		JIS C 0025	Test Nb (except 3.5 , 3.8 , 3.9) Temperature:-65 to +200℃
			Test Na (except 2.5 , 2.8 , 2.9) Temperature:-65 to +200℃
25	Damp heat, steady state	JIS C 5402 7.3	Temperature:+40 ℃ Humidity: 90 to 95% RH
		JISC60068-2-3	(except 3.1 , 5,6) Temperature:+40 ℃ Humidity: 90 to 95% RH
		JISC60068-2-78	(except 6 , 8 , 10 , 11) Temperature:+40±2 ℃, Humidity: 93±3% RH Temperature:+40±2 ℃, Humidity: 85±3% RH
26	Test under combination cycle of temperature and humidity	JIS C 5402 7.4.1	Temperature: -10 to +65℃ Humidity:90-95% RH
		JISC60068-2-38	(except 6.2 , 6.4 , 7) Temperature: -10 to +65℃ Humidity:90-95% RH
27	Temperature humidity cycle (12 + 12 hour cycle) test	JIS C 5402 7.4.2	Temperature:25-55℃ Humidity:90-95% RH
		JISC60068-2-30	(except 5 , 7 , 9 , 10) Temperature:25-55℃ Humidity:90-95% RH
28	Sealing (air tightness) test	JIS C 5402 7.5.1	Head of water: 0.15 m to 1.5m
29	Sealing (air tightness) test	JIS C 5402 7.6	Pressure range: ambient pressure ~17.6 kPa
30	Heat resistance	JIS C 5402 7.8	Temperature:+30 to +200℃
		JIS C 60068-2-2	Test Ba (except 5 , 6 , 8 , 10 , 11) Test Bb (except 16 , 17 , 19 , 21 , 22) Temperature:+30 to +200℃

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31	Cold resistance	JIS C 5402 7.9	Temperature:-65 to -5℃
		JIS C 60068-2-1	Test Aa (except 5 , 6 , 8 , 10 , 11) Test Ab (except 16 , 17 , 19 , 21 , 22) Temperature:-65 to -5℃
32	Solder wetting performance	JIS C 5402.7.11	Soldering bath method: 235℃ Soldering iron method: 350℃
33	Soldering heat resistance	JIS C 5402.7.12	Soldering bath method: 260, 350℃ Soldering iron method: 350℃
34	Corrosion test under mixed gas flow	JIS C 5402-11-7	Temperature:25-30℃ Humidity:70-75% RH Gas: CL ₂ , NO ₂ , H ₂ S, SO ₂
		JISC60068-2-60	(except 4 , 5 , 8 , 9) Temperature:25-30℃ Humidity:70-75% RH Gas: CL ₂ , NO ₂ , H ₂ S, SO ₂
35	Freefall test(Method 1 only)	JIS C 60068-2-32	Dropping height:25mm to 1000mm Method 1 only
36	Sulfur dioxide gas test for contacts and terminal area	JIS C 60068-2-42	Temperature:25-40℃ Humidity:75-80% RH Gas concentration:25 ppm
37	Hydrogen sulfide gas test for contacts and terminal area	JIS C 60068-2-43	Temperature:25-40℃ Humidity:75-80% RH Gas concentration:10-15 ppm
38	Wide band random vibration test(Method 1 only)	JIS C 60068-2-64	Frequency:5-2000Hz Control acceleration spectral density: 0.5~10(m/s ²) ² /Hz Method 1 only