

MINIFLEX® 5-BFN II

Part No. 20542-0**E-01, 20691-0**E-01 (TYPE M)

Test Report

Product Specification no. PRS-1619

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Rev.	ECN	Date	Prepared by	Checked by	Approved by

MINIFLEX 5-BFN II Test Report

Document No.
TR-12124-06EN

1. Purpose

To evaluate the performance of MINIFLEX 5-BFN II Connector in accordance with PRS-1619.

2. Specimen

- (1) MINIFLEX 5-BFN II (Part No. 20542-0**E-01)
- MINIFLEX 5-BFN II TYPE-M (Part No. 20691-0**E-01)

- (2) FPC : Made by Taiyo Industrial Co.,Ltd.

Thickness Lead : $t=0.3\pm0.03$ (Actual measurement : 0.29~0.30mm)

Made by NIPPON MECTRON, Ltd.

Thickness Lead : $t=0.3\pm0.03$ (Actual measurement : 0.29~0.30mm)

3. Test Sequence

All the evaluations were performed in accordance with Table 1. Test Sequence.

4. Result

See Table 2-1 to 2-6, Graph 1 to 17. For the details of the testing conditions and requirements, see PRS-1619.

The "n" in the tables show the number of measurement points.

5. Conclusion

All the specimens met the requirements of PRS-1619.

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Table 1 Test Sequence and Sample Quantity

Test Items	Group														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
C/T Resistance	2,7			1,3, 5	1,3	1,3	1,3	1,5	1,5	1,3	1,3	1,3	1,3		
D.W.Voltage								2,6	2,6						
Insulation Resistance								3,7	3,7						
Temp. rising															1
Act Locking Force	1,5														
Act Un-locking Force	3,6														
FPC Retention Force		1,3													
Durability	4	2													
C/T Retention Force			1												
H/D Retention Force			2												
Vibration				2											
Shock				4											
Fretting Corrosion					2										
Thermal Shock						2									
High Temp. Life							2								
High Temp & High Hum energizing								4							
High Temp & High Hum Life									4						
Cold Temp. Life										2					
Gas (H ₂ S)											2				
Gas (SO ₂)												2			
Salt Water Spray													2		
Solderability														1	
Soldering Heat Resist.															1
Specimen Quantity.	10 pcs.	10 pcs.	20 pos.	10 pcs.											

※Numbers indicate sequence in which tests are performed.

Table 2-1 Test Result

Test Item	Measurement		Spec.	Set	n	Data					Judge
						AVE.(X)	MAX.	MIN.	s	X±3s	
A Group Durability	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.361	29.89	22.18	1.808	31.785	○
		After 20th	ΔR=20mΩ MAX.			0.270	2.35	-2.50	1.491	4.743	○
	4P	Initial	2.4N MAX. (0.6N/Pos.×4P)	10	10	1.385 (0.346)	1.47 (0.37)	1.31 (0.33)	0.056 (0.014)	1.553 (0.388)	○
		20th cycles				0.984 (0.246)	1.04 (0.26)	0.88 (0.22)	0.050 (0.013)	1.134 (0.284)	○
	5P	Initial	3.0N MAX. (0.6N/Pos.×5P)	10	10	1.728 (0.346)	1.85 (0.37)	1.63 (0.33)	0.066 (0.013)	1.926 (0.385)	○
		20th cycles				1.226 (0.245)	1.31 (0.26)	1.14 (0.23)	0.059 (0.012)	1.403 (0.281)	○
	6P	Initial	3.6N MAX. (0.6N/Pos.×6P)	10	10	2.091 (0.349)	2.20 (0.37)	1.96 (0.33)	0.082 (0.014)	2.337 (0.390)	○
		20th cycles				1.486 (0.248)	1.57 (0.26)	1.33 (0.22)	0.075 (0.013)	1.711 (0.285)	○
	8P	Initial	4.8N MAX. (0.6N/Pos.×8P)	10	10	2.838 (0.355)	2.97 (0.37)	2.70 (0.34)	0.100 (0.013)	3.138 (0.392)	○
		20th cycles				1.829 (0.229)	1.96 (0.25)	1.74 (0.22)	0.092 (0.012)	2.105 (0.263)	○
	10P	Initial	6.0N MAX. (0.6N/Pos.×10P)	10	10	3.532 (0.353)	3.69 (0.37)	3.36 (0.34)	0.125 (0.013)	3.907 (0.391)	○
		20th cycles				2.283 (0.228)	2.45 (0.25)	2.16 (0.22)	0.122 (0.012)	2.649 (0.265)	○
	12P	Initial	7.2N MAX. (0.6N/Pos.×12P)	10	10	4.260 (0.355)	4.46 (0.37)	4.05 (0.34)	0.158 (0.013)	4.734 (0.395)	○
		20th cycles				2.770 (0.231)	2.98 (0.25)	2.62 (0.22)	0.142 (0.012)	3.196 (0.266)	○
	14P	Initial	8.4N MAX. (0.6N/Pos.×14P)	10	10	4.964 (0.355)	5.13 (0.37)	4.79 (0.34)	0.112 (0.008)	5.300 (0.379)	○
		20th cycles				3.223 (0.230)	3.40 (0.24)	3.08 (0.22)	0.129 (0.009)	3.610 (0.258)	○
	16P	Initial	9.6N MAX. (0.6N/Pos.×16P)	10	10	3.358 (0.210)	3.49 (0.22)	3.28 (0.21)	0.092 (0.006)	3.634 (0.227)	○
		20th cycles				2.564 (0.160)	2.77 (0.17)	2.47 (0.15)	0.126 (0.008)	2.942 (0.184)	○
	18P	Initial	10.8N MAX. (0.6N/Pos.×18P)	10	10	3.797 (0.211)	3.97 (0.22)	3.68 (0.20)	0.100 (0.006)	4.097 (0.228)	○
		20th cycles				2.890 (0.161)	3.03 (0.17)	2.79 (0.16)	0.098 (0.005)	3.184 (0.177)	○
	20P	Initial	12.0N MAX. (0.6N/Pos.×20P)	10	10	4.251 (0.213)	4.47 (0.22)	4.12 (0.21)	0.112 (0.006)	4.587 (0.229)	○
		20th cycles				3.238 (0.162)	3.39 (0.17)	3.14 (0.16)	0.084 (0.004)	3.490 (0.175)	○
	22P	Initial	13.2N MAX. (0.6N/Pos.×22P)	10	10	4.663 (0.212)	4.83 (0.22)	4.51 (0.21)	0.094 (0.004)	4.945 (0.225)	○
		20th cycles				3.523 (0.160)	3.68 (0.17)	3.40 (0.15)	0.095 (0.004)	3.808 (0.173)	○
	24P	Initial	14.4N MAX. (0.6N/Pos.×24P)	10	10	5.095 (0.212)	5.23 (0.22)	4.98 (0.21)	0.086 (0.004)	5.353 (0.223)	○
		20th cycles				3.872 (0.161)	4.00 (0.17)	3.74 (0.16)	0.078 (0.003)	4.106 (0.171)	○

Table 2-2 Test Result

Test Item	Measurement			Spec.	Set	n	Data				Judge	
							AVE.(X)	MAX.	MIN.	s		
A Group Durability	Act Locking Force(N)	26P	Initial	15.6N MAX. (0.6N/Pos.×26P)	10	10	5.533 (0.213)	5.72 (0.22)	5.40 (0.21)	0.120 (0.005)	5.893 (0.227)	○
			20th cycles				4.163 (0.160)	4.28 (0.16)	4.02 (0.15)	0.084 (0.003)	4.415 (0.170)	○
		28P	Initial	16.8N MAX. (0.6N/Pos.×28P)	10	10	5.900 (0.211)	6.06 (0.22)	5.79 (0.21)	0.107 (0.004)	6.221 (0.222)	○
			20th cycles				4.413 (0.158)	4.47 (0.16)	4.32 (0.15)	0.066 (0.002)	4.611 (0.165)	○
		30P	Initial	18.0N MAX. (0.6N/Pos.×30P)	10	10	6.442 (0.215)	6.59 (0.22)	6.29 (0.21)	0.133 (0.004)	6.841 (0.228)	○
			20th cycles				4.852 (0.162)	5.00 (0.17)	4.71 (0.16)	0.127 (0.004)	5.233 (0.174)	○
	Act Un-locking Force(N)	4P	Initial	0.20N MIN. (0.05N/Pos.×4P)	10	10	0.934 (0.234)	1.01 (0.25)	0.89 (0.22)	0.045 (0.011)	0.799 (0.200)	○
			20th cycles				0.720 (0.180)	0.75 (0.19)	0.68 (0.17)	0.027 (0.007)	0.639 (0.160)	○
		5P	Initial	0.25N MIN. (0.05N/Pos.×5P)	10	10	1.173 (0.235)	1.27 (0.25)	1.11 (0.22)	0.058 (0.012)	0.999 (0.200)	○
			20th cycles				0.904 (0.181)	0.94 (0.19)	0.85 (0.17)	0.032 (0.006)	0.808 (0.162)	○
		6P	Initial	0.30N MIN. (0.05N/Pos.×6P)	10	10	1.412 (0.235)	1.54 (0.26)	1.34 (0.22)	0.075 (0.013)	1.187 (0.198)	○
			20th cycles				1.091 (0.182)	1.16 (0.19)	1.02 (0.17)	0.049 (0.008)	0.944 (0.157)	○
		8P	Initial	0.40N MIN. (0.05N/Pos.×8P)	10	10	1.876 (0.235)	1.91 (0.24)	1.84 (0.23)	0.024 (0.003)	1.804 (0.226)	○
			20th cycles				1.551 (0.194)	1.62 (0.20)	1.49 (0.19)	0.049 (0.006)	1.404 (0.176)	○
		10P	Initial	0.50N MIN. (0.05N/Pos.×10P)	10	10	2.336 (0.234)	2.37 (0.24)	2.29 (0.23)	0.028 (0.003)	2.252 (0.225)	○
			20th cycles				1.936 (0.194)	2.04 (0.20)	1.87 (0.19)	0.063 (0.006)	1.747 (0.175)	○
		12P	Initial	0.60N MIN. (0.05N/Pos.×12P)	10	10	2.824 (0.235)	2.87 (0.24)	2.76 (0.23)	0.042 (0.004)	2.698 (0.225)	○
			20th cycles				2.345 (0.195)	2.46 (0.21)	2.26 (0.19)	0.077 (0.006)	2.114 (0.176)	○
		14P	Initial	0.70N MIN. (0.05N/Pos.×14P)	10	10	3.266 (0.233)	3.31 (0.24)	3.19 (0.23)	0.042 (0.003)	3.140 (0.224)	○
			20th cycles				2.726 (0.195)	2.86 (0.20)	2.61 (0.19)	0.084 (0.006)	2.474 (0.177)	○
		16P	Initial	0.80N MIN. (0.05N/Pos.×16P)	10	10	2.252 (0.141)	2.31 (0.14)	2.19 (0.14)	0.052 (0.003)	2.096 (0.131)	○
			20th cycles				2.079 (0.130)	2.22 (0.14)	1.94 (0.12)	0.105 (0.007)	1.764 (0.110)	○
		18P	Initial	0.90N MIN. (0.05N/Pos.×18P)	10	10	2.533 (0.141)	2.61 (0.15)	2.44 (0.14)	0.057 (0.003)	2.362 (0.131)	○
			20th cycles				2.316 (0.129)	2.41 (0.13)	2.16 (0.12)	0.084 (0.005)	2.064 (0.115)	○
		20P	Initial	1.00N MIN. (0.05N/Pos.×20P)	10	10	2.802 (0.140)	2.95 (0.15)	2.68 (0.13)	0.091 (0.005)	2.529 (0.126)	○
			20th cycles				2.558 (0.128)	2.69 (0.13)	2.38 (0.12)	0.094 (0.005)	2.276 (0.114)	○

Table 2-3 Test Result

Test Item	Measurement			Spec.	Set	n	Data					Judge
							AVE.(X)	MAX.	MIN.	s	X±3s	
A Group Durability	Act Un-locking Force(N)	22P 20th cycles	Initial	1.10N MIN. (0.05N/Pos.×22P)	10	10	3.076 (0.140)	3.20 (0.15)	2.97 (0.14)	0.089 (0.004)	2.809 (0.128)	○
							2.816 (0.128)	2.94 (0.13)	2.67 (0.12)	0.080 (0.004)	2.576 (0.117)	○
		24P 20th cycles	Initial	1.20N MIN. (0.05N/Pos.×24P)	10	10	3.339 (0.139)	3.46 (0.14)	3.24 (0.14)	0.097 (0.004)	3.048 (0.127)	○
							3.087 (0.129)	3.20 (0.13)	2.96 (0.12)	0.073 (0.003)	2.868 (0.120)	○
		26P 20th cycles	Initial	1.30N MIN. (0.05N/Pos.×26P)	10	10	3.639 (0.140)	3.78 (0.15)	3.53 (0.14)	0.099 (0.004)	3.342 (0.129)	○
							3.381 (0.130)	3.54 (0.14)	3.24 (0.12)	0.110 (0.004)	3.051 (0.117)	○
B Group FPC Retention Force(N)		28P 20th cycles	Initial	1.40N MIN. (0.05N/Pos.×28P)	10	10	3.887 (0.139)	4.01 (0.14)	3.79 (0.14)	0.097 (0.003)	3.596 (0.128)	○
							3.584 (0.128)	3.73 (0.13)	3.45 (0.12)	0.112 (0.004)	3.248 (0.116)	○
		30P 20th cycles	Initial	1.50N MIN. (0.05N/Pos.×30P)	10	10	4.176 (0.139)	4.24 (0.14)	4.08 (0.14)	0.065 (0.002)	3.981 (0.133)	○
							3.874 (0.129)	4.00 (0.13)	3.82 (0.13)	0.052 (0.002)	3.718 (0.124)	○
		4P 20th cycles	Initial	0.60N MIN. (0.15N/Pos.×4P)	10	10	2.777 (0.694)	2.92 (0.73)	2.60 (0.65)	0.132 (0.033)	2.381 (0.595)	○
							1.967 (0.492)	2.02 (0.51)	1.94 (0.49)	0.029 (0.007)	1.880 (0.470)	○
		5P 20th cycles	Initial	0.75N MIN. (0.15N/Pos.×5P)	10	10	3.471 (0.694)	3.67 (0.73)	3.22 (0.64)	0.161 (0.032)	2.988 (0.598)	○
							2.458 (0.492)	2.52 (0.50)	2.38 (0.48)	0.047 (0.009)	2.317 (0.463)	○
		6P 20th cycles	Initial	0.90N MIN. (0.15N/Pos.×6P)	10	10	4.173 (0.696)	4.38 (0.73)	3.92 (0.65)	0.194 (0.032)	3.591 (0.599)	○
							2.964 (0.494)	3.05 (0.51)	2.90 (0.48)	0.058 (0.010)	2.790 (0.465)	○
		8P 20th cycles	Initial	1.20N MIN. (0.15N/Pos.×8P)	10	10	5.605 (0.701)	5.96 (0.75)	5.36 (0.67)	0.253 (0.032)	4.846 (0.606)	○
							4.123 (0.515)	4.23 (0.53)	4.02 (0.50)	0.088 (0.011)	3.859 (0.482)	○
		10P 20th cycles	Initial	1.50N MIN. (0.15N/Pos.×10P)	10	10	7.022 (0.702)	7.46 (0.75)	6.72 (0.67)	0.305 (0.031)	6.107 (0.611)	○
							5.175 (0.518)	5.33 (0.53)	5.02 (0.50)	0.118 (0.012)	4.821 (0.482)	○
		12P 20th cycles	Initial	1.80N MIN. (0.15N/Pos.×12P)	10	10	8.389 (0.699)	8.94 (0.75)	8.08 (0.67)	0.335 (0.028)	7.384 (0.615)	○
							6.202 (0.517)	6.39 (0.53)	6.04 (0.50)	0.136 (0.011)	5.794 (0.483)	○
		14P 20th cycles	Initial	2.10N MIN. (0.15N/Pos.×14P)	10	10	9.798 (0.700)	10.14 (0.72)	9.63 (0.69)	0.195 (0.014)	9.213 (0.658)	○
							7.230 (0.516)	7.54 (0.54)	7.02 (0.50)	0.164 (0.012)	6.738 (0.481)	○
		16P 20th cycles	Initial	2.40N MIN. (0.15N/Pos.×16P)	10	10	7.517 (0.470)	7.88 (0.49)	7.10 (0.44)	0.222 (0.014)	6.851 (0.428)	○
							6.630 (0.414)	6.95 (0.43)	6.32 (0.40)	0.168 (0.011)	6.126 (0.383)	○

Table 2-4 Test Result

Test Item	Measurement			Spec.	Set	n	Data					Judge			
							AVE.(X)	MAX.	MIN.	s	X±3s				
B Group FPC Retention Force(N)	18P	Initial	2.70N MIN. (0.15N/Pos.×18P)	10	10		8.489 (0.472)	8.79 (0.49)	8.14 (0.45)	0.201 (0.011)	7.886 (0.438)	○			
		After 20th					7.378 (0.410)	7.78 (0.43)	7.00 (0.39)	0.194 (0.011)	6.796 (0.378)	○			
	20P	Initial	3.00N MIN. (0.15N/Pos.×20P)	10	10		9.475 (0.474)	9.82 (0.49)	9.11 (0.46)	0.236 (0.012)	8.767 (0.438)	○			
		After 20th					8.248 (0.412)	8.77 (0.44)	7.73 (0.39)	0.272 (0.014)	7.432 (0.372)	○			
	22P	Initial	3.30N MIN. (0.15N/Pos.×22P)	10	10		10.367 (0.471)	11.00 (0.50)	10.01 (0.46)	0.273 (0.012)	9.548 (0.434)	○			
		After 20th					9.023 (0.410)	9.45 (0.43)	8.58 (0.39)	0.263 (0.012)	8.234 (0.374)	○			
	24P	Initial	3.60N MIN. (0.15N/Pos.×24P)	10	10		11.320 (0.472)	11.78 (0.49)	10.91 (0.45)	0.263 (0.011)	10.531 (0.439)	○			
		After 20th					9.864 (0.411)	10.34 (0.43)	9.41 (0.39)	0.316 (0.013)	8.916 (0.372)	○			
C Group Retention Force (N)	26P	Initial	3.90N MIN. (0.15N/Pos.×26P)	10	10		12.308 (0.473)	12.73 (0.49)	11.87 (0.46)	0.287 (0.011)	11.447 (0.440)	○			
		After 20th					10.635 (0.409)	11.23 (0.43)	9.94 (0.38)	0.427 (0.016)	9.354 (0.360)	○			
	28P	Initial	4.20N MIN. (0.15N/Pos.×28P)	10	10		13.182 (0.471)	13.44 (0.48)	12.88 (0.46)	0.237 (0.008)	12.471 (0.445)	○			
		After 20th					11.457 (0.409)	12.19 (0.44)	10.88 (0.39)	0.528 (0.019)	9.873 (0.353)	○			
	30P	Initial	4.50N MIN. (0.15N/Pos.×30P)	10	10		14.224 (0.474)	14.64 (0.49)	13.76 (0.46)	0.304 (0.010)	13.312 (0.444)	○			
		After 20th					12.327 (0.411)	13.20 (0.44)	11.91 (0.40)	0.455 (0.015)	10.962 (0.365)	○			
	H/D	C/T	0.5N MIN.	10	20		1.289	1.37	1.20	0.052	1.133	○			
		H/D	0.5N MIN.	10	20		0.867	0.97	0.80	0.050	0.717	○			
D Group Vibration Shock	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80		26.738	29.98	22.12	1.801	32.141	○			
		After Vibration	ΔR=20mΩ MAX.				-1.396	0.44	-2.34	0.624	0.476	○			
		After Shock					-0.715	1.70	-2.14	0.824	1.757	○			
	Discontinuity	During Vibration	1μsec. MAX.	10	10	No Discontinuity						○			
		During Shock				No Discontinuity						○			
	Appearance	After Vibration	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality						○			
		After Shock				No Abnormality						○			

Table 2-5 Test Result

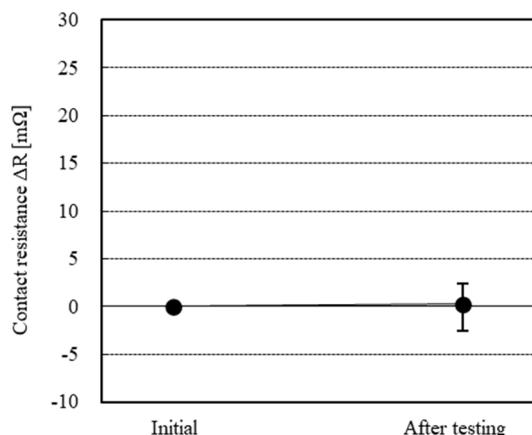
Test Item	Measurement		Spec.	Set	n	Data					Judge
						AVE.(X)	MAX.	MIN.	s	X±3s	
E Group Fretting Corrosion	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.426	29.80	21.63	1.926	32.204	○
		After Test	ΔR=20mΩ MAX.			-1.758	1.19	-3.49	1.083	1.491	○
	Discontinuity	In Test	1μsec. MAX.	10	10	No Discontinuity					○
	Appearance	After Test	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality					○
F Group Thermal Shock	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.681	30.21	21.92	1.736	31.889	○
		After Test	ΔR=20mΩ MAX.			-1.860	1.86	-5.84	1.581	2.883	○
	Appearance	After Test	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality					○
G Group High Temp. Life	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.144	29.29	21.81	1.809	31.571	○
		After Test	ΔR=20mΩ MAX.			3.305	6.81	-0.33	1.360	7.385	○
	Appearance	After Test	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality					○
H Group High Temp. & High Hum. energizing	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.348	29.77	21.69	1.905	32.063	○
		After Test	ΔR=20mΩ MAX.			1.511	5.56	-1.32	2.015	7.556	○
	D.W.Voltage	Initial	No abnormalities such as creeping discharge, flashover, insulator breakdown occur	10	40	No Abnormality					○
		After Test				No Abnormality					○
	Insulation Resistance (MΩ)	Initial	100MΩ MIN	10	40	MIN. 2.0×10^4 MΩ					○
		After Test				MIN. 3.0×10^3 MΩ					○
J Group High Temp. & High Hum. Life	Appearance	After Test	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality					○
	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.765	29.75	22.16	1.820	32.225	○
		After Test	ΔR=20mΩ MAX.			2.052	5.76	-2.40	2.447	9.393	○
	D.W.Voltage	Initial	No abnormalities such as creeping discharge, flashover, insulator breakdown occur	10	40	No Abnormality					○
		After Test				No Abnormality					○
	Insulation Resistance (MΩ)	Initial	100MΩ MIN	10	40	MIN. 2.0×10^4 MΩ					○
		After Test				MIN. 2.5×10^3 MΩ					○
	Appearance	After Test	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality					○

Table 2-6 Test Result

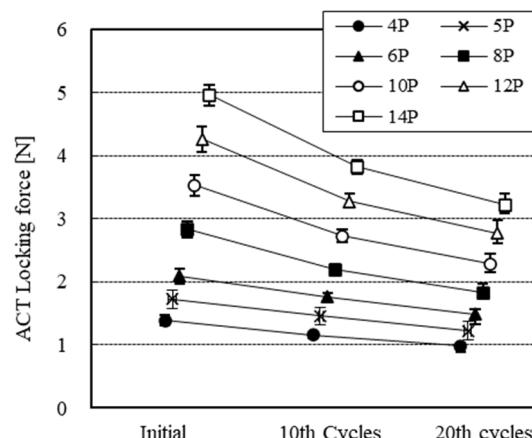
Test Item	Measurement		Spec.	Set	n	Data					Judge
						AVE.(X)	MAX.	MIN.	S	X±3s	
K Group Cold Temp. Life	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.483	29.80	22.04	1.943	32.312	○
		After Test	ΔR=20mΩ MAX.			0.062	2.83	-2.28	1.530	4.652	○
	Appearance	After Test	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality					○
L Group Gas(H ₂ S)	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.381	29.61	21.83	1.851	31.934	○
		After Test	ΔR=20mΩ MAX.			0.157	3.90	-2.04	1.564	4.849	○
	Appearance	After Test	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality					○
M Group Gas(SO ₂)	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.522	30.24	21.52	1.892	32.198	○
		After Test	ΔR=20mΩ MAX.			0.419	3.60	-2.33	1.849	5.966	○
	Appearance	After Test	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality					○
N Group Salt Water Spray	Contact Resistance (mΩ)	Initial	40mΩ MAX.	10	80	26.288	29.35	21.26	1.886	31.946	○
		After Test	ΔR=20mΩ MAX.			1.268	4.94	-1.76	1.685	6.323	○
	Appearance	After Test	No abnormality adversely affecting the performance shall occur	10	10	No Abnormality					○
P Group Solderability	Zerox Time (sec.)	C/T	3sec. MAX	10	10	MAX. 0.1sec.					○
		H/D		10	10	MAX. 0.2sec.					○
	Appearance	C/T	Wetness 95% MIN.	10	10	95%MIN.was wet.					○
		H/D		10	10	95%MIN.was wet.					○
Q Group Soldering Heat Resistance	Reflow twice		No Abnormality	10	10	No Abnormality					○
	Soldering iron					No Abnormality					○
R Group Temp. rising	0.5A/Contact 3.0A/Connector		ΔT=30°C MAX.	10	10	MAX. 26.2°C					○

* To evaluate about Temp. Rising Test with FPC made by Taiyo Industrial Co.,Ltd (Thickness Lead : t=0.3mm, Length : L=70mm).

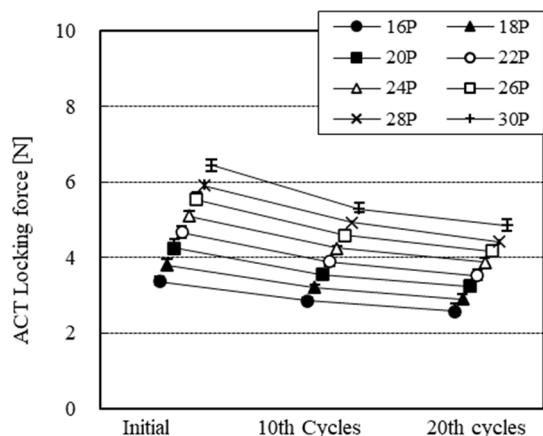
It is a result of when applied ratings current (0.5A/Contact) between the neighboring contacts for 6pos. (With the whole connector 3.0A).



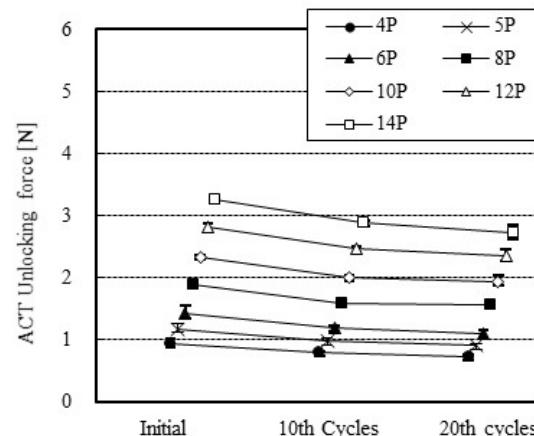
Graph 1. A change of Contact Resistance
A group : Durability



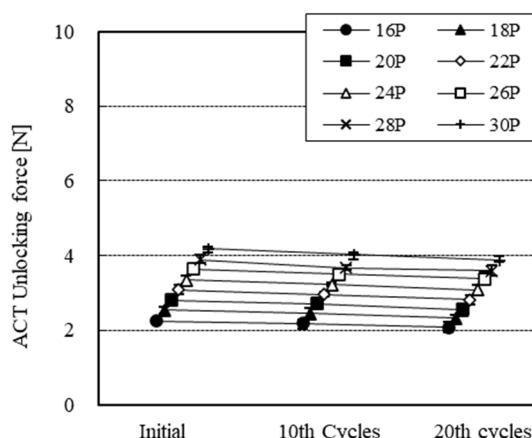
Graph 2. A change of ACT Locking Force (4P~14P)
A group : Durability



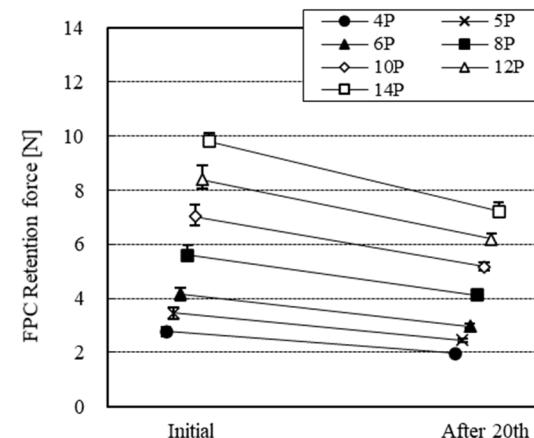
Graph 3. A change of ACT Locking Force (16P~30P)
A group : Durability



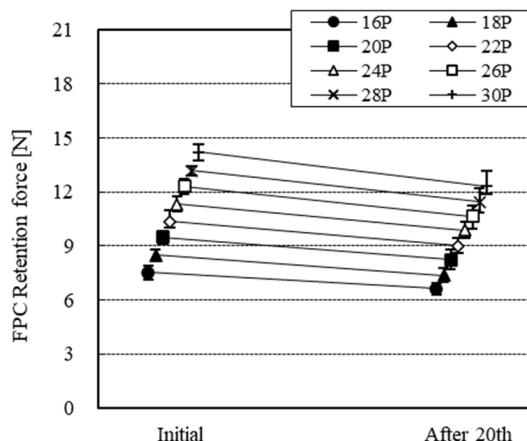
Graph 4. A change of Un-locking Force (4P~14P)
A group : Durability



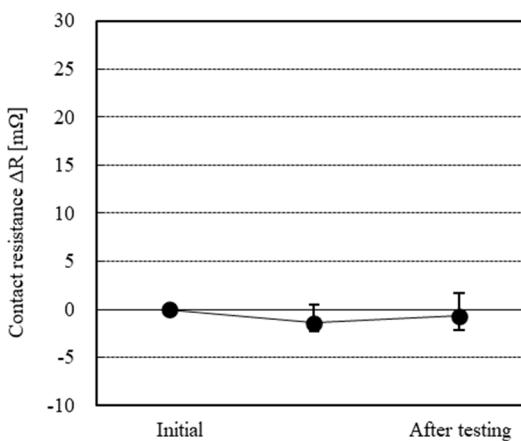
Graph 5. A change of Un-locking Force (16P~30P)
A group : Durability



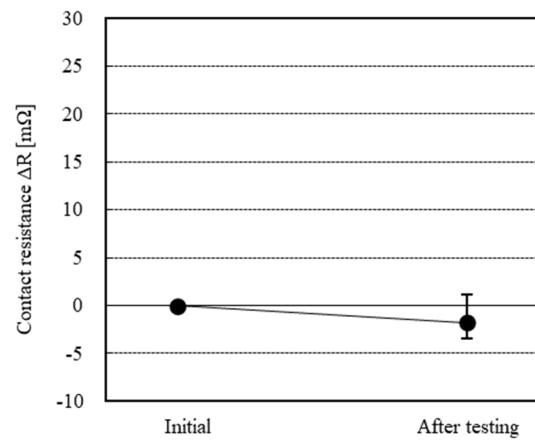
Graph 6. A change of FPC Retention Force(4P~14P)
B group : FPC Retention Force



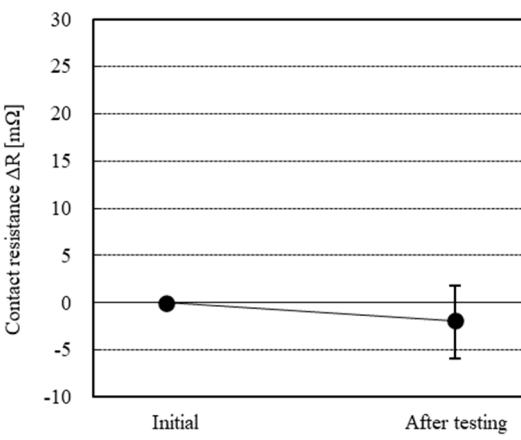
Graph 7. A change of FPC Retention Force(16P~30P)
B group : FPC Retention Force



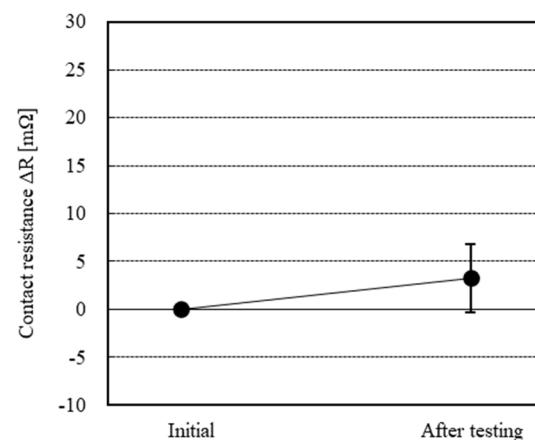
Graph 8. A change of Contact Resistance
D group : Vibration / Shock



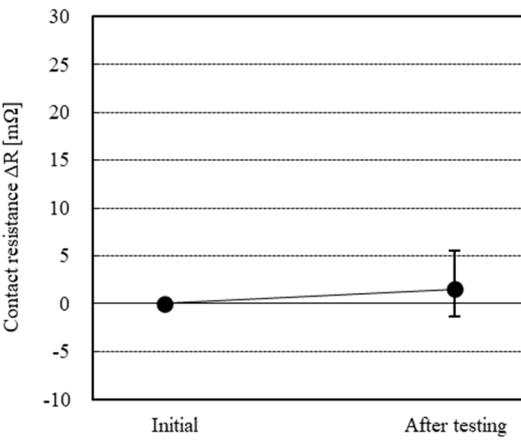
Graph 9. A change of Contact Resistance
E group : Fretting Corrosion



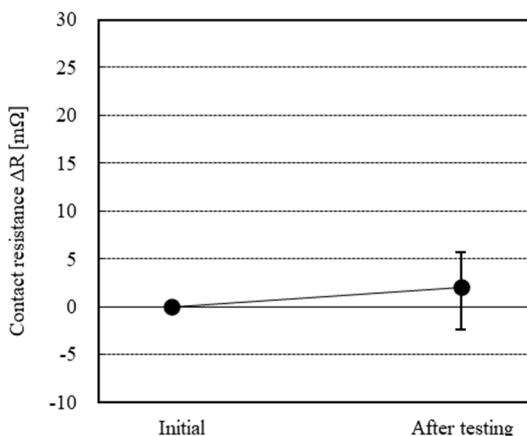
Graph 10. A change of Contact Resistance
F group : Thermal Shock



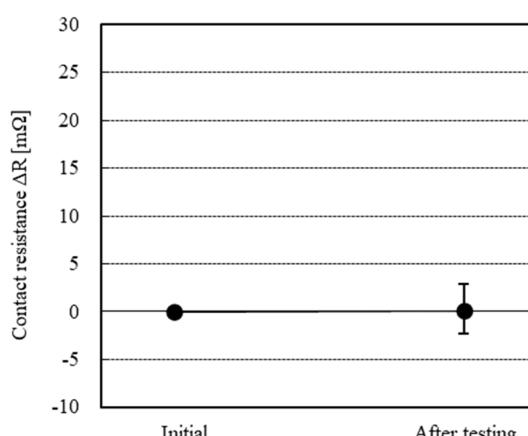
Graph 11. A change of Contact Resistance
G group : High Temp. Life



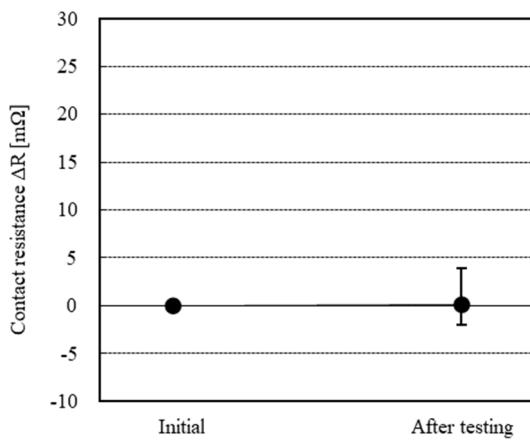
Graph 12. A change of Contact Resistance
H group : High Temp. & High Hum. Energizing



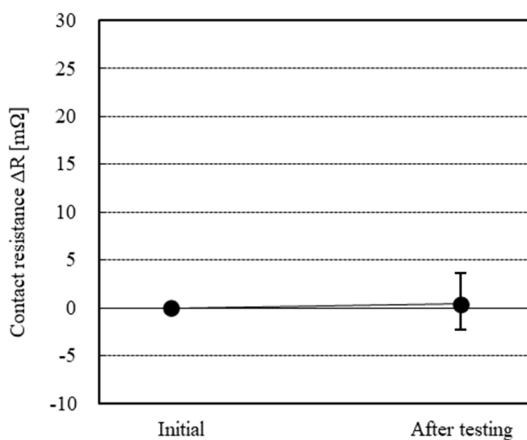
Graph 13. A change of Contact Resistance
J group : High Temp. & High Hum. Life



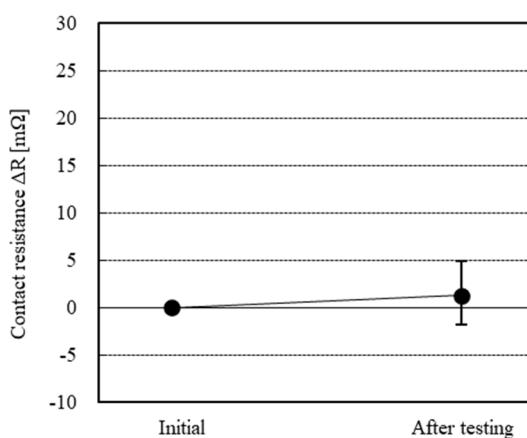
Graph 14. A change of Contact Resistance
K group : Cold Temp. Life



Graph 15. A change of Contact Resistance
L group : Gas (H₂S)



Graph 16. A change of Contact Resistance
M group : Gas (SO₂)



Graph 17. A change of Contact Resistance
N group : Salt Water Spray