Change Request Form

Submission Address

To Our Valued Customers

Reference Number	8UCMH-0067-1(1)
Publication Date	July 6, 2026

Issued by
Nidec Components Co., Ltd.
Actuator Division,
Manufacturing Department 2,
Quality Control Team

Approved by	Checked by	Prepared by
佐藤(浩)		吉家

Dear

We hope this letter finds your company in good health and continued success.

We sincerely thank you for your continued support.

Regarding the subject matter indicated above, as outlined below, we are submitting a request to change the components used in the rotary encoder.

We kindly ask that you review this request.

Sincerely,

Details of Change Request

1.Change Title

JT22 Series Chip Resistor Material Change

2.Target Models（9models）

- JT22-090-610-01
- JT22-320-C00
- JT22-120-500-01
- JT22-120-C00
- JT22-120-C01-01
- JT22-120-500-11
- JT22-120-C00-01
- JT22-120-500
- JT22-320-500

3.Planned Implementation Date

Switching from October 2026 production

Modified items are tracked by lot number.

4.Reason for Change

Improved rated power and higher precision

5.Change Details

Category	Current model	Revised version
Manufacturer Name	ROHM Co., Ltd.	ROHM Co., Ltd.
Part Number	・MCR50JZHJ121 Glassware ・MCR50JZHJ331 Glassware ・MCR50JZHJ101 Glassware	・MCR50SJQPJ121 Plasticware ・MCR50SJQPJ331 Plasticware ・MCR50SJQPJ101 Plasticware
Exterior		

6.Evaluation Results

① The modified functionality and performance meet the specifications.

② The modified reliability tests also meet the conditions specified in the specifications.

	Document Title	Reference Number	Rating Type (Representative Type)	Determination
①	Performance Evaluation Report	8UCBF-0203(1)	JT22-090-610-01(Resistor Part Number : MCR50SJQPJ121)	OK
			JT22-120-C01-01(Resistor Part Number : MCR50SJQPJ331)	OK
			JT22-320-500(Resistor Part Number : MCR50SJQPJ101)	OK
②	Reliability Test Report	8UCED-0172(1)	JT22-320-500(Resistor Part Number : MCR50SJQPJ101)	OK

7.Preferred response date

Through September 1, 2026

Customer's Decision

Decision　　Company Name

☐ Approve　☐ Cannot approve

If you are unable to approve this, please state the reason.

Comments

Approved by	Checked by	Prepared by

ニデックコンポーネンツ株式会社

Model / Resistor Usage List　　※ please check"Change Request Form" Reference Number 8UCMH-0067-1(1)

Potentiometer Model	Previous	New
JT22-090-610-01	MCR50JZHJ121	MCR50SJQPJ121
JT22-120-C00	MCR50JZHJ331	MCR50SJQPJ331
JT22-120-C00-01	MCR50JZHJ331	MCR50SJQPJ331
JT22-320-C00	MCR50JZHJ331	MCR50SJQPJ331
JT22-120-C01-01	MCR50JZHJ331	MCR50SJQPJ331
JT22-120-500	MCR50JZHJ101	MCR50SJQPJ101
JT22-120-500-01	MCR50JZHJ101	MCR50SJQPJ101
JT22-120-500-11	MCR50JZHJ101	MCR50SJQPJ101
JT22-320-500	MCR50JZHJ101	MCR50SJQPJ101

The glassware resistor MCR50JZHJ will be replaced by the plsticware resistor MCR50SJQPJ.
The resistance values will remain the same, but the material will change from glass to plstic.

Previous　　New

MCR50JZHJ121 Glassware　　MCR50SJQPJ121 Plasticware
MCR50JZHJ331 Glassware　　MCR50SJQPJ331 Plasticware
MCR50JZHJ101 Glassware　　MCR50SJQPJ101 Plasticware
*The image shows the　　The resistance code will no longer be printed
MCR50JZHJ331 as an example　　on the surface of the new resistor.

This change will be implemented for all three models effective from October 2026 production.

Reliability test reports are issued for the representative model of the entire product line.
The environmental data provided is for the MCR50SJQPJ total model.

Submission Address		Performance Evaluation Report	Reference Number 8UCBF-0203(1)		
Publication Date March 31, 2026 Document Classification Record	Publishing Department Manufacturing Part 2 QC	Title Model: JT22 Series Product Evaluation Results for Resistors with Modified Materials	Approved by	Checked by	Prepared by

1Purpose

We are reporting the performance evaluation results for the JT22 series with modified resistor materials.

2.Applicable Models/Changes

Item	Details
Evaluation model	①JT22－090－610－01(Resistor Part Number:MCR50SJQPJ121) ②JT22－120－C01－01(Resistor Part Number:MCR50SJQPJ331) ③JT22－320－500(Resistor Part Number:MCR50SJQPJ101)
Purpose	Performance Evaluation of Products with Modified Resistor Materials
Identification	①LotNo.56C×3pcs ②LotNo.56C×3pcs ③LotNo.56C×12pcs
Related Documents	①JT22-090-610-01 「Minutes of the QC Meeting」8UCAC-0618 「Instructions for Partial Functional Prototyping」8UDDM-0903 ②JT22-120-C01-01 「Minutes of the QC Meeting」8UCAC-0618 「Instructions for Partial Functional Prototyping」8UDDM-0903-1 ③ JT22-320-500 「Minutes of the QC Meeting」8UCAC-0618 「Instructions for Partial Functional Prototyping」8UDDM-0903-2

3.Evaluation Criteria/Specifications/Results by Item

JT22-090-610-01 Number of samples×3pcs

Category	Evaluation Criteria	Specifications	Determination	
Features /Performance	Dielectric strength	500 V AC, 1 minute	OK	Meets the specifications
	Insulation resistance	DC 500 V, 100 MΩ or higher	OK	Meets the specifications
	Absolute straightness	within ±3.0%	OK	Meets the specifications
	Current consumption	Less than 18 mA	OK	Meets the specifications

See page 2 for the data

JT22-120-C01-01 Number of samples×3pcs

Category	Evaluation Criteria	Specifications	Determination	
Features /Performance	Dielectric strength	500 V AC, 1 minute	OK	Meets the specifications
	Insulation resistance	DC 500 V, 100 MΩ or higher	OK	Meets the specifications
	Absolute straightness	within ±3.0%	OK	Meets the specifications
	Current consumption	Less than 40 mA	OK	Meets the specifications

See page 3 for the data

JT22-320-500 Number of samples×12pcs

Category	Evaluation Criteria	Specifications	Decision	Process capability
Features /Performance	Dielectric strength	500 V AC, 1 minute	OK	—
	Insulation resistance	DC 500 V, 100 MΩ or higher	OK	—
	Absolute Straightness MAX	within ±3.0%	OK	2.01(◎)
	Absolute straightness MIN		OK	1.43(◎)
	Current consumption	Less than 40 mA	OK	—

See pages 4-7 for the data

4.Conclusion

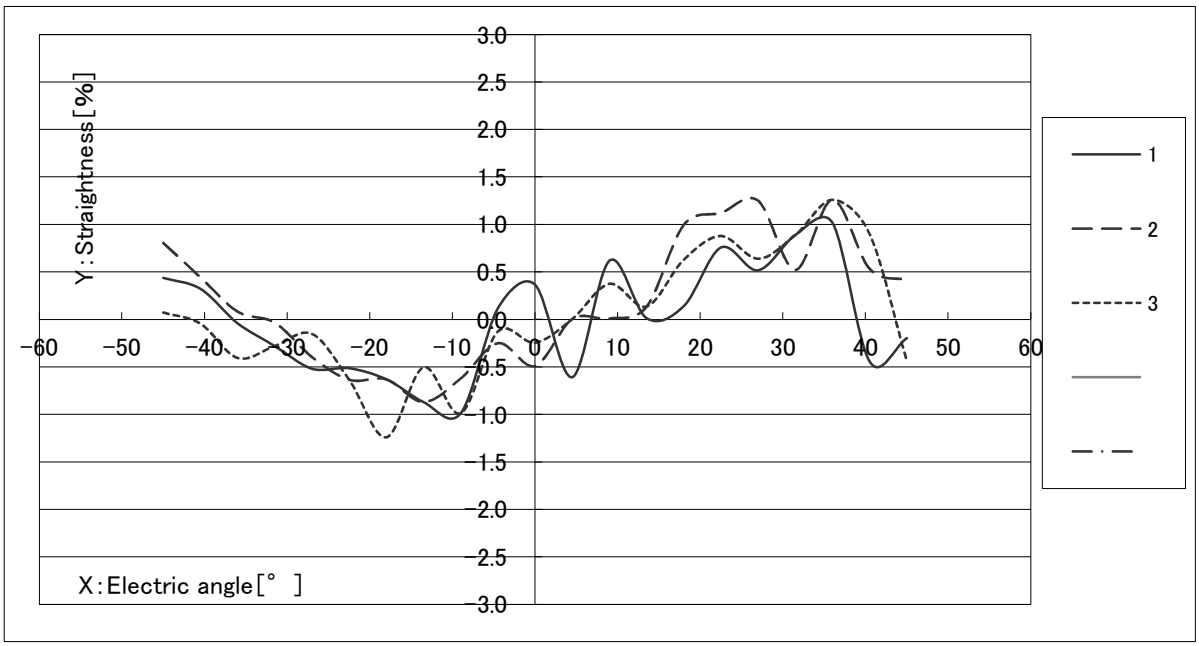
■Result･･･Pass

All functions and performance met the specifications, and there were no defective units.

That‘s all

Optical Potentiometer Shipment Inspection Data

Model			Lot No.	Lot size	Date of examination		
ＪＴ２２－０９０－６１０－０１			56C	N=3	September 4, 2025		
Test Items	Specifications		No.1	No.2	No.3		
1. Dielectric strength	500 V AC for 1minute		O K	O K	O K		
2. Insulation resistance	DC 500 V, 100 MΩ or higher		O K	O K	O K		
3. Absolute straightness	±3.0%	ＭＡＸ	1.02	1.26	1.26		
		ＭＩＮ	-0.99	-0.87	-1.24		
4. Current consumption (6 V DC)	Less than 18 mA		O K	O K	O K		

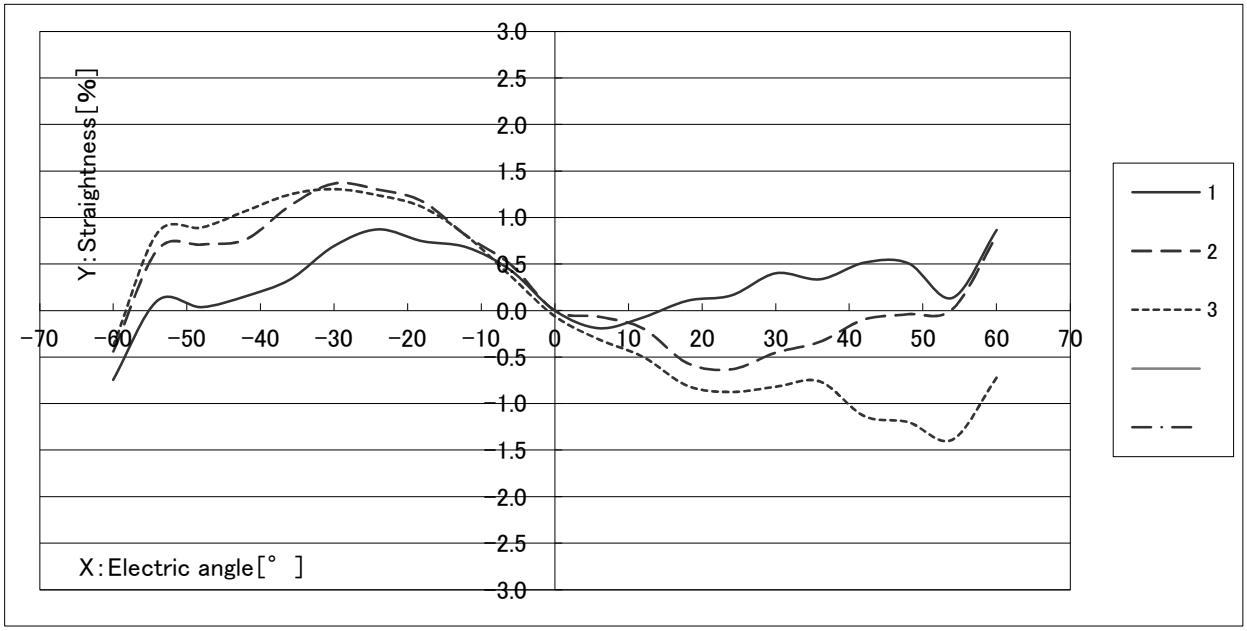


room temperature : 22℃

Humidity : 41%Rh

Optical Potentiometer Shipment Inspection Data

Model			Lot No.	Lot size	Date of examination		
ＪＴ２２－１２０－Ｃ０１－０１			56C	N=3	September 4, 2025		
Test Items	Specifications		No.1	No.2	No.3		
1. Dielectric strength	500 V AC for 1minute		O K	O K	O K		
2. Insulation resistance	DC 500 V, 100 MΩ or higher		O K	O K	O K		
3. Absolute straightness	±3.0%	ＭＡＸ	0.87	1.37	1.31		
		ＭＩＮ	-0.74	-0.63	-1.39		
4. Current consumption (12 V DC)	Less than 40 mA		O K	O K	O K		

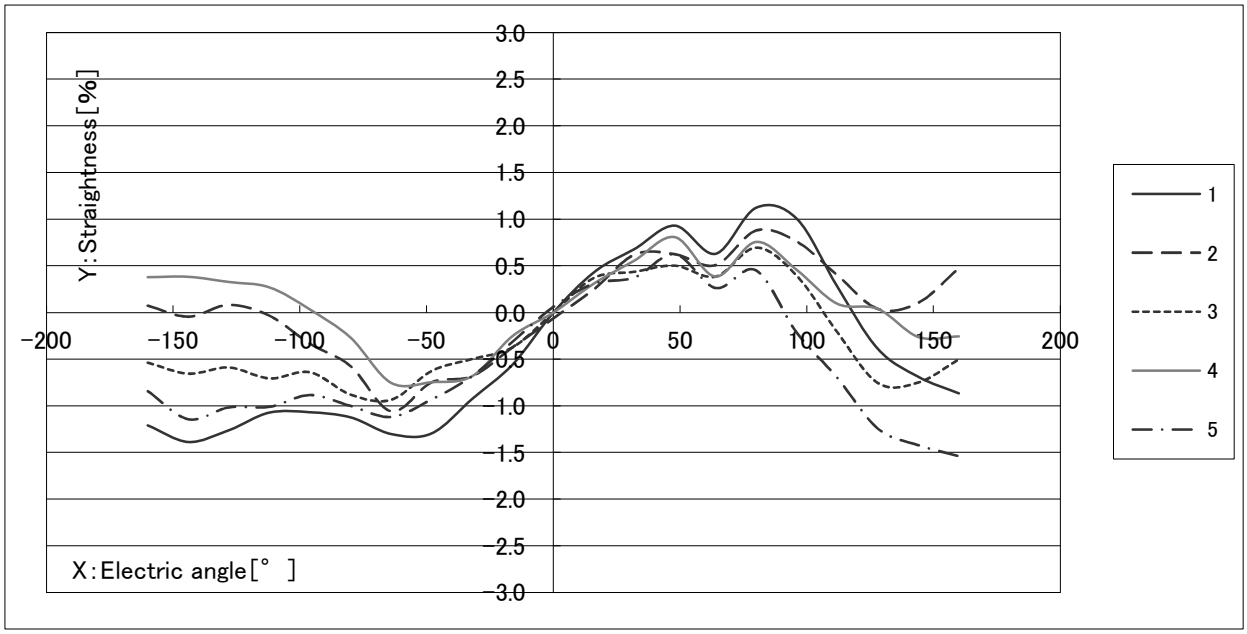


room temperature： 22℃

Humidity： 41%Rh

Optical Potentiometer Shipment Inspection Data

Model		Lot No.	Lot size	Date of examination		
ＪＴ２２－３２０－５００		56C	N=12	September 4, 2025		
Test Items	Specifications	No. 1	No. 2	No. 3	No. 4	No. 5
1. Dielectric strength	500 V AC for 1minute	O K	O K	O K	O K	O K
2. Insulation resistance	DC 500 V, 100 MΩ or higher	O K	O K	O K	O K	O K
3. Absolute straightness	±3.0% MAX	1.12	0.88	0.70	0.81	0.62
	MIN	-1.39	-1.06	-0.94	-0.75	-1.54
4. Current consumption (5 V DC)	Less than 40 mA	O K	O K	O K	O K	O K

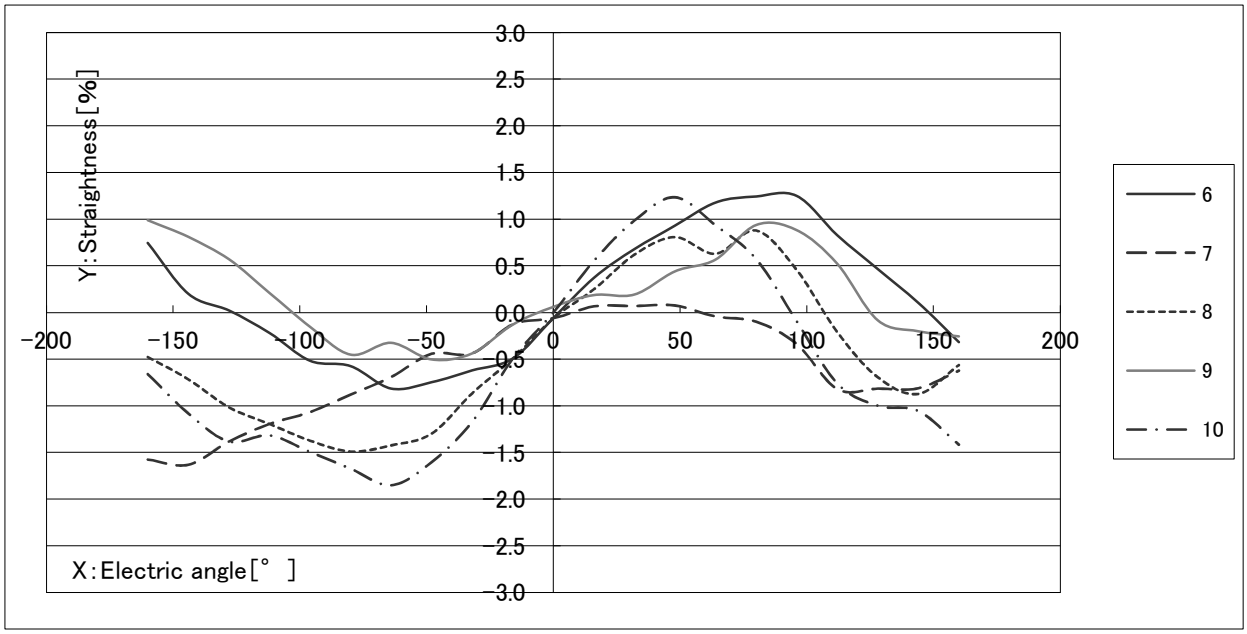


room temperature : 22℃

Humidity : 41%Rh

Optical Potentiometer Shipment Inspection Data

Model			Lot No.	Lot size	Date of examination		
ＪＴ２２－３２０－５００			56C	N=12	September 4, 2025		
Test Items	Specifications		No. 6	No. 7	No. 8	No. 9	No. 10
1. Dielectric strength	500 V AC for 1minute		O K	O K	O K	O K	O K
2. Insulation resistance	DC 500 V, 100 MΩ or higher		O K	O K	O K	O K	O K
3. Absolute straightness	±3.0%	MAX	1.25	0.08	0.88	0.99	1.24
		MIN	-0.81	-1.63	-1.49	-0.50	-1.85
4. Current consumption (5 V DC)	Less than 40 mA		O K	O K	O K	O K	O K

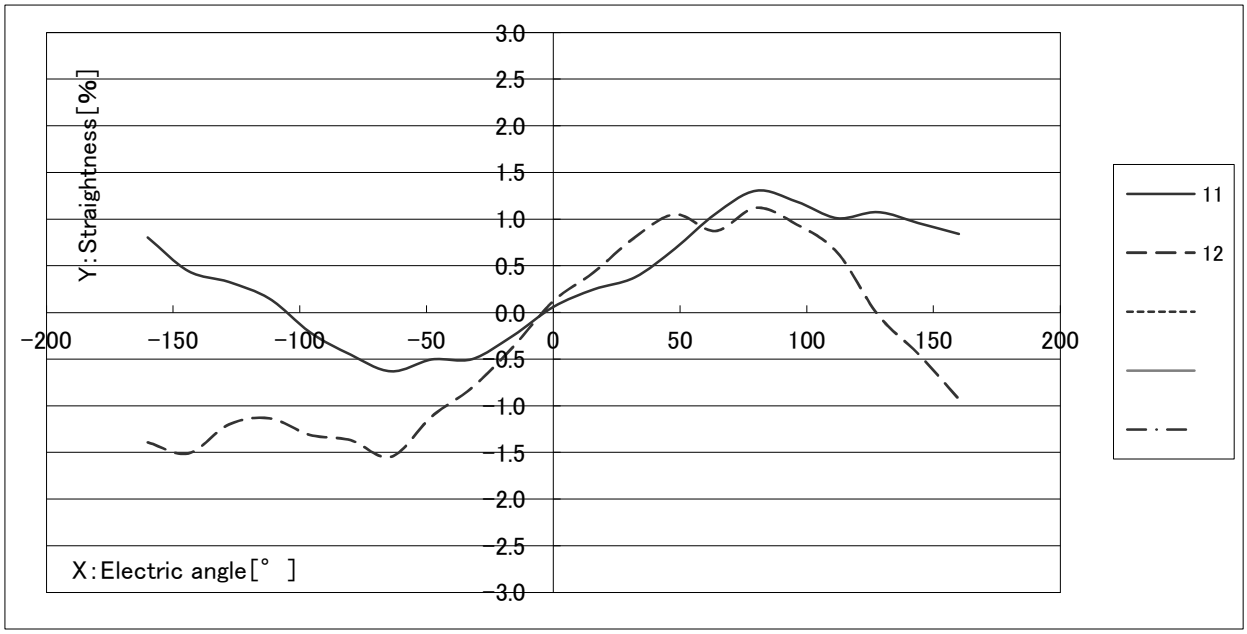


room temperature : 22℃

Humidity : 41%Rh

Optical Potentiometer Shipment Inspection Data

Model			Lot No.	Lot size	Date of examination
ＪＴ２２－３２０－５００			56C	N=12	September 4, 2025
Test Items	Specifications		No.11	No.12	
1. Dielectric strength	500 V AC for 1minute		O K	O K	
2. Insulation resistance	DC 500 V, 100 MΩ or higher		O K	O K	
3. Absolute straightness	±3.0%	MAX	1.31	1.12	
		MIN	-0.63	-1.55	
4. Current consumption (5 V DC)	Less than 40 mA		O K	O K	



room temperature : 22℃

Humidity : 41%Rh

Specifications

Model	Test Items	LotNo.	Temperature / Humidity	Exam Date
JT22-320-500	Absolute straightness Process capability	56C	21 ℃ / 44 %Rh	September 4, 2025

No.	①	②							
Item	Absolute Straightness MAX	Absolute Straightness MIN							
MAX	3.0								
MIN		-3.0							
1	1.12	-1.39							
2	0.88	-1.06							
3	0.70	-0.94							
4	0.81	-0.75							
5	0.62	-1.54							
6	1.25	-0.81							
7	0.08	-1.63							
8	0.88	-1.49							
9	0.99	-0.50							
10	1.24	-1.85							
11	1.31	-1.12							
12	1.12	-1.55							
Ave	0.917	-1.219							
R	1.230	1.350							
MAX	1.31	-0.50							
MIN	0.08	-1.85							
σ	0.345	0.416							
Cpk									
Cp									
Cp Upper	2.01								
Cplower		1.43							

Submission Address		Reliability Test Report	Reference Number 8UCED-0172(1)		
Publication Date March 26, 2026 Document Classification Record	Publishing Department Manufacturing Part 2 QC	Title JT22 Series "Change in Chip Resistor Material" Reliability Test Results	Approved by 佐藤浩	Checked by	Prepared by 吉家

1.Purpose

Regarding Evaluation Samples for the JT22 Series Potentiometers
"Change in Chip Resistor Material Change"We are reporting the results of the reliability tests.

2.Prototyping Information

Item	Details
Category	4M Change Request ・Change in Chip Resistor Material Previously：MCR50JZHJ121 Glassware MCR50JZHJ331 Glassware MCR50JZHJ101 Glassware New：MCR50SJQPJ121 Plasticware MCR50SJQPJ331 Plasticware MCR50SJQPJ101 Plasticware *For details, please refer to the "Change Request Form" Reference No. 8UCMH-0067(1).
Processing Slip	"Instructions for Partial Functional Prototyping" Reference No. 8UDDM-0903
Compatible Models	JT22 Series: 9 Models JT22-090-610-01　JT22-120-500 JT22-120-C00　JT22-120-500-01 JT22-120-C00-01　JT22-120-500-11 JT22-320-C00　JT22-320-500 JT22-120-C01-01
Test Model	JT22-320-500 Product Name：Potentiometer Control Number/Drawing Number：7910 1K01 0111
Number of units	A total of 12 units
Identification	LotNo.56C

3.Conclusion

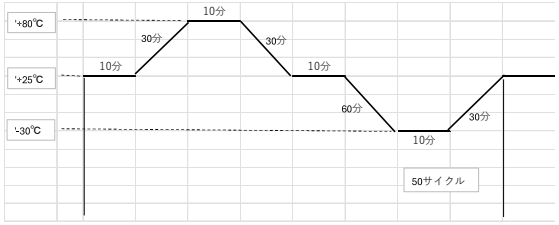
■ Result：Pass

Based on the evaluation results, we confirmed that the prototype met the conditions specified in the product specifications both before and after testing.
Furthermore, during the performance evaluation, the characteristics remained stable before and after testing, and no abnormalities were observed.
Therefore, we have determined that the prototype has passed the evaluation.

4.Reliability Test Items, Conditions, and Post-Test Specifications

■ Reliability testing＝4 items in total

Test items shall be conducted in accordance with Sub-Functional Prototype Instruction 8UDDM-0903-2.

No.	Item	Test Conditions	Evaluation Criteria	Quantity
1	Left at high temperatures	Test temperature: 80°C Duration: 96 hours	Within the initial specifications	3
2	Left at a low temperature	Test temperature: -30°C Duration: 96 hours		3
3	Temperature cycling	JT22 温度サイクル試験条件 		3
4	Humidity resistance	Test conditions: 25°C(12 hours) to 65°C (12 hours), 95% relative humidity duration: 24 hours × 10 cycles		3

5.Reliability Test Results

The specifications were met both before and after the test. (Note: Three units per test item)

Item	Location/Facilities	Decision	Details	Data
① Left at high temperature	Ichinoseki Office	Pass	The specifications were met both before and after the test.	P.3
② Left at low temperature	Ichinoseki Office	Pass	The specifications were met both before and after the test.	P.4
③ Temperature cycling	Sano Office	Pass	The specifications were met both before and after the test.	P.5
④ Humidity resistance	Ichinoseki Office	Pass	The specifications were met both before and after the test.	P.6

That's all

Left at high temperature

Model/Test Model	Reliability Test Items	Test Conditions	Decision
JT22 Series (Test model:JT22-320-500)	**Left at high temperature**	80℃ 96hours	**Pass**

Evaluation Criteria		Absolute straightness MAX	Absolute straightness MIN							
Unit		%	%							
Pre-test specifications		±3% or less	±3% or less							
	upper limit	3.0								
	lower limit		-3.0							
Post-test specifications		↓	↓							
	upper limit	3.0								**Sample**
	lower limit		-3.0							**Classification**
No.1	Before	1.120	-1.390							**OK**
	after	0.686	-1.484							
	Change	-0.434	-0.094							
	Decision	○	○							
No.2	Before	0.880	-1.060							**OK**
	after	0.625	-1.484							
	Change	-0.255	-0.424							
	Decision	○	○							
No.3	Before	0.700	-0.940							**OK**
	after	0.452	-1.238							
	Change	-0.248	-0.298							
	Decision	○	○							
	Before									
	after									
	Change									
	Decision									
	Before									
	after									
	Change									
	Decision									
Average	Before	0.9000	-1.1300							
	after	0.5876	-1.4022							
	Change	-0.3124	-0.2722							
	Rate	-34.7%	24.1%							

Notes

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Left at low temperature

Model/Test Model	Reliability Test Items	Test Conditions	Decision
JT22 Series (Test model:JT22-320-500)	**Left at low temperature**	-30℃ 96hours	**Pass**

Evaluation Criteria		Absolute straightness MAX	Absolute straightness MIN							
Unit		%	%							
Pre-test specifications		±3% or less	±3% or less							
	upper limit	3.0								
	lower limit		-3.0							
Post-test specifications		↓	↓							
	upper limit	3.0								**Sample Classification**
	lower limit		-3.0							
No.4	Before	0.810	-0.750							**OK**
	after	0.879	-1.606							
	Change	0.069	-0.856							
	Decision	○	○							
No.5	Before	0.620	-1.540							**OK**
	after	0.005	-1.697							
	Change	-0.615	-0.157							
	Decision	○	○							
No.6	Before	1.250	-0.810							**OK**
	after	0.757	-0.935							
	Change	-0.493	-0.125							
	Decision	○	○							
	Before									
	after									
	Change									
	Decision									
	Before									
	after									
	Change									
	Decision									
Average	Before	0.89333	-1.03333							
	after	0.54687	-1.41276							
	Change	-0.34646	-0.37943							
	Rate	-38.8%	36.7%							

Notes

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Temperature cycling

Model/Test Model	Reliability Test Items	Test Conditions	Decision
JT22 Series (Test model:JT22-320-500)	**Temperature cycling**	-30℃,+25℃,+80℃,+25℃ 50cycle	**Pass**

Evaluation Criteria		Absolute straightness MAX	Absolute straightness MIN							
Unit		%	%							
Pre-test specifications		±3% or less	±3% or less							
	upper limit	3.0								
	lower limit		-3.0							
Post-test specifications		↓	↓							
	upper limit	3.0								**Sample**
	lower limit		-3.0							**Classification**
No.7	Before	0.080	-1.630							**OK**
	after	0.879	-1.362							
	Change	0.799	0.268							
	Decision	○	○							
No.8	Before	0.880	-1.490							**OK**
	after	0.442	-1.233							
	Change	-0.438	0.257							
	Decision	○	○							
No.9	Before	0.990	-0.500							**OK**
	after	1.052	-1.782							
	Change	0.062	-1.282							
	Decision	○	○							
	Before									
	after									
	Change									
	Decision									
	Before									
	after									
	Change									
	Decision									
Average	Before	0.650	-1.21							
	after	0.791	-1.46							
	Change	0.141	-0.25							
	Rate	-	-							

Notes

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Humidity resistance

Model/Test Model	Reliability Test Items	Test Conditions	Decision
JT22 Series (Test model:JT22-320-500)	**Humidity resistance**	25℃ 12H～65℃ 12H 95% Rh 24H×10cycle	**Pass**

Evaluation Criteria		Absolute straightness MAX	Absolute straightness MIN							
Unit		%	%							
Pre-test specifications		±3% or less	±3% or less							
	upper limit	3.0								
	lower limit		-3.0							
Post-test specifications		↓	↓							
	upper limit	3.0								**Sample Classification**
	lower limit		-3.0							
No.10	Before	1.240	-1.850							**OK**
	after	0.928	-0.513							
	Change	-0.312	1.337							
	Decision	○	○							
No.11	Before	1.310	-1.120							**OK**
	after	0.884	-0.752							
	Change	-0.426	0.368							
	Decision	○	○							
No.12	Before	1.120	-1.550							**OK**
	after	0.940	-0.874							
	Change	-0.180	0.676							
	Decision	○	○							
	Before									
	after									
	Change									
	Decision									
	Before									
	after									
	Change									
	Decision									
Average	Before	1.223	-1.51							
	after	0.917	-0.71							
	Change	-0.306	0.79							
	Rate	-	-							

Notes

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