Not to be disclosed to any party other than the intended recipient

To: Gc

Product Change Notification

ECNS26-005
August 26, 2026
EM Devices Corporation

1. Object

Change used materials of signal relay.
Relay Type: EA2, EB2, EC2, EE2 Series

2. Contents of Change

Change of magnet

Item	Current	New
Material	Sm-Co magnet	Fe-Cr-Co magnet
Manufacture	A Company	B Company
Delivery Status	Magnetized products	Non-magnetized products

Note: This change does not change product specifications such as external dimensions and performance. Names of materials and manufacturers are not disclosed. Due to a change in the delivery status, a new magnetization process using a new magnetization device will be added after the magnet assembly stage in the manufacturing process.

The table below shows the status of changes to the following safety standards that have already been adopted.

Certifying Authority	Standard	File No.	Last Update	
			EA2/EB2	EC2/EE2
UL	UL508	E73266	Before Review	Under Review
CSA	CSA C22.2 No.14	216198 (LR46266)	2026-07-24	2026-07-24

3.Reasons of Change

This change is due to a notification we received that shipments of Sm-Co magnets would be suspended because of China's rare earth export restrictions. The changed Fe-Cr-Co magnets have been used in our U-Series signal relays for over 25 years.

4. Application

This change of EC2/EE2relay is scheduled to begin with production in December 2026. And this change of EA2/EB2relay is scheduled to begin production in February 2027.

5. Other

We have attached the Distribution of Characteristics for the EC2/EE2 relays as reference material regarding this change. Other materials are currently being prepared; if you have any questions, please contact our Sales Department.

Yoshifumi Chida Y. Chida
Signal Relay Development Department Manager
Product Development Division

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Reference Documents: EC2/EE2 Characteristic Distributions

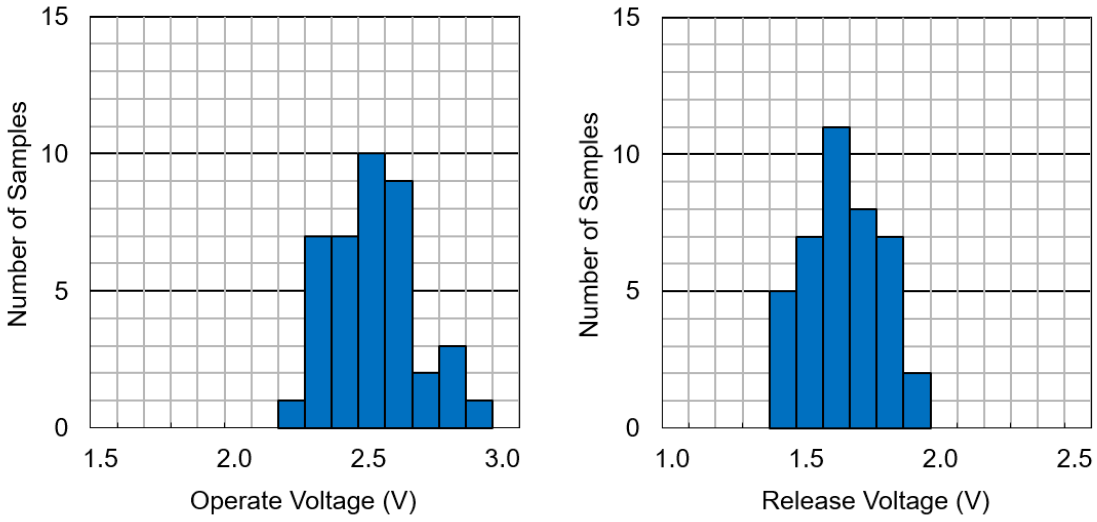
This document presents the distribution data of the sample characteristic values of the EC2 series relay on behalf of the EC2 and the EE2 series relays, because they are designed with common specifications. The data shown in this document are sampled from evaluation production lot, and do not necessarily guarantee the characteristics of any lot that is shipped. The number of samples is 40 relays for each test.

1. Operate & release voltages

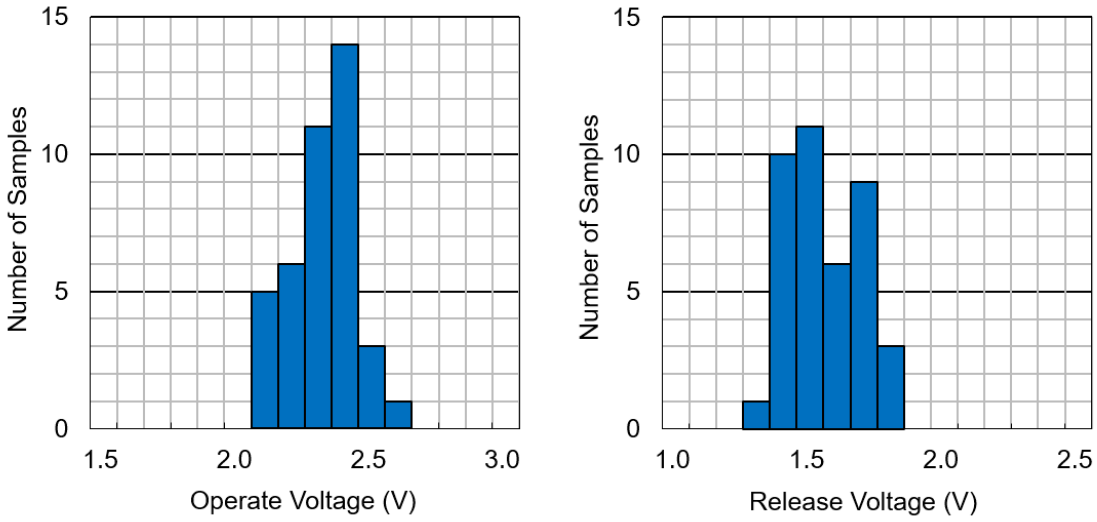
This section shows the distribution of the voltage at which the relay operates. The initial specifications are as follows.

Operate Voltage: 75% or less of Nominal Voltage (5-V type: 3.75V, 12-V type: 9.0V)
Release Voltage: 10% or more of Nominal Voltage (5-V type: 0.5V, 12-V type: 1.2V)

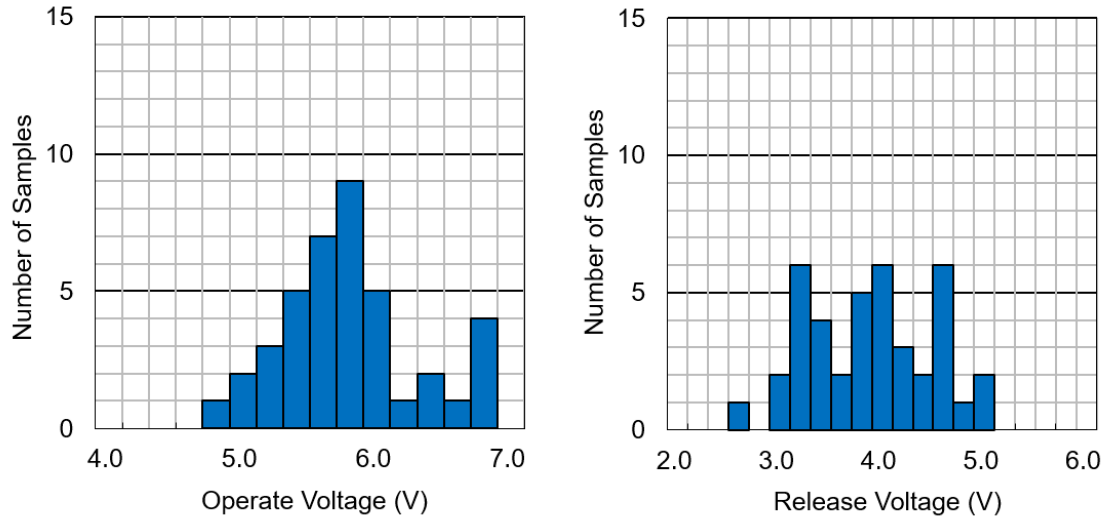
(1) Current (Sm-Co magnet), Non-latching, 5-V type



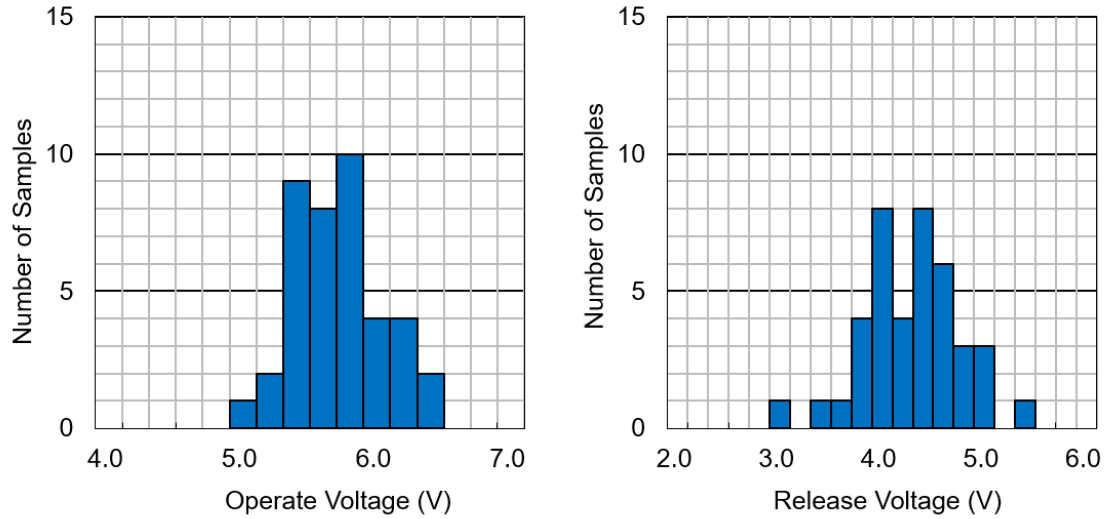
(2) New (Fe-Cr-Co magnet), Non-latching, 5-V type



(3) Current (Sm-Co magnet), Non-latching, 12-V type



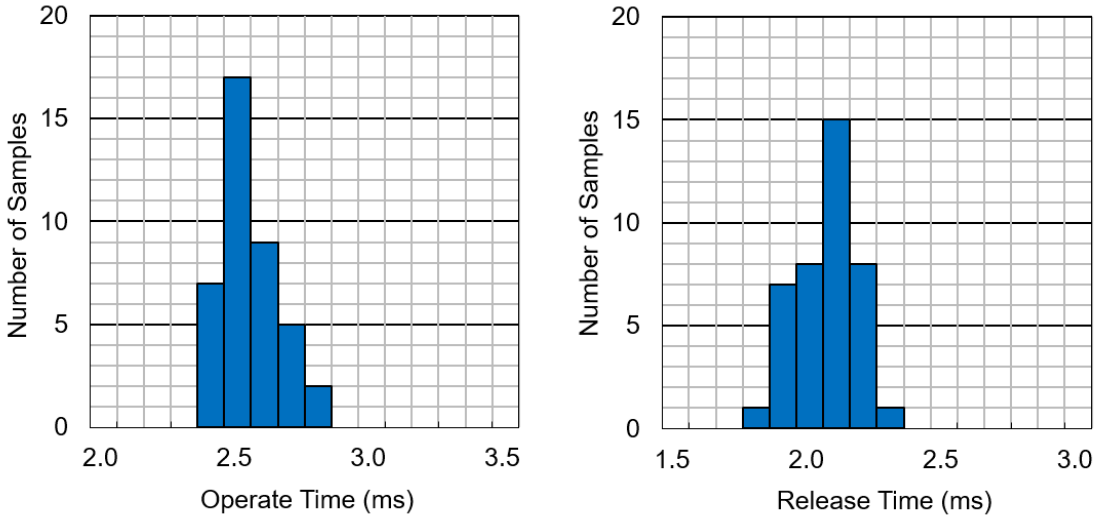
(4) New (Fe-Cr-Co magnet), Non-latching, 12-V type



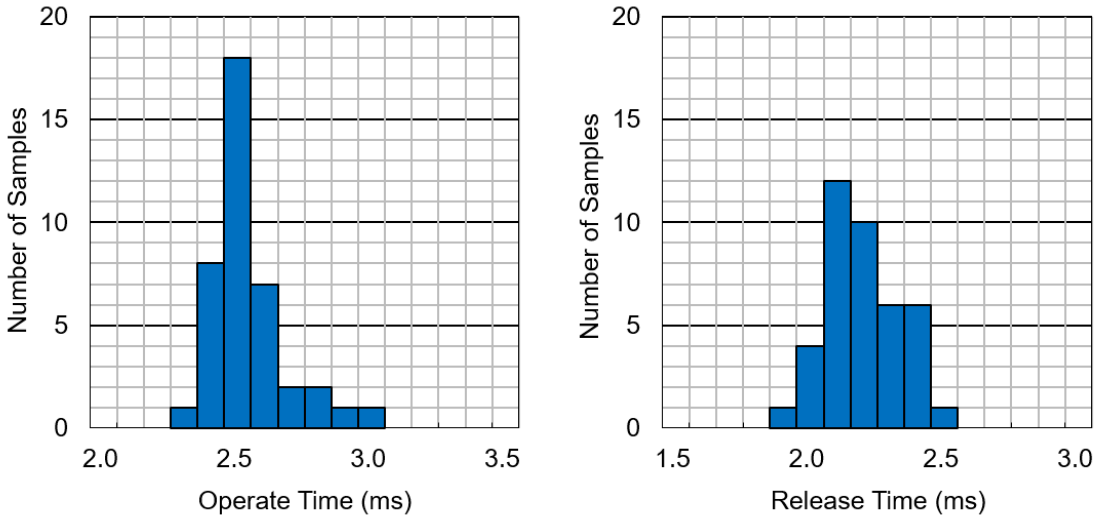
2. Operate & release times (with bounce time)

This section shows the operate time that elapses from the time when the relay coil is energized until the relay contacts close, and the release time that elapses from the time when the relay coil is deenergized until the closed contacts open. This data was measured with a diode added in parallel with the coil to prevent a counter electromotive force. This timing data shows the greater values of the two sets of contacts.

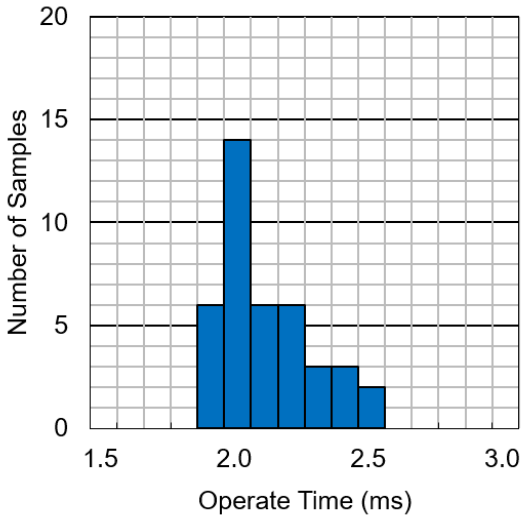
(1) Current (Sm-Co magnet), Non-latching, 5-V type

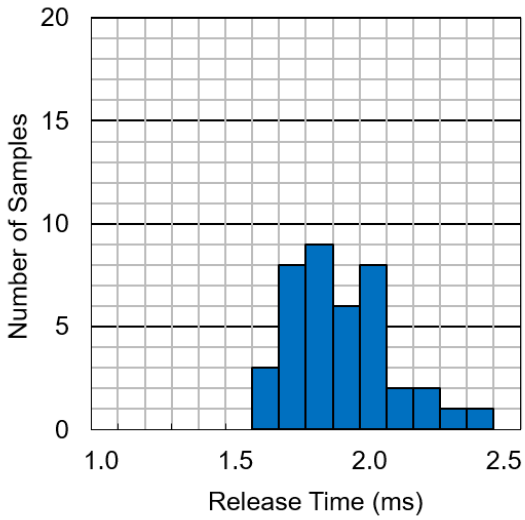


(2) New (Fe-Cr-Co magnet), Non-latching, 5-V type

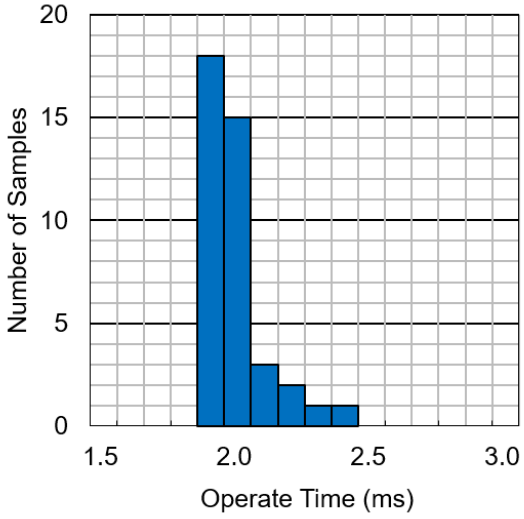


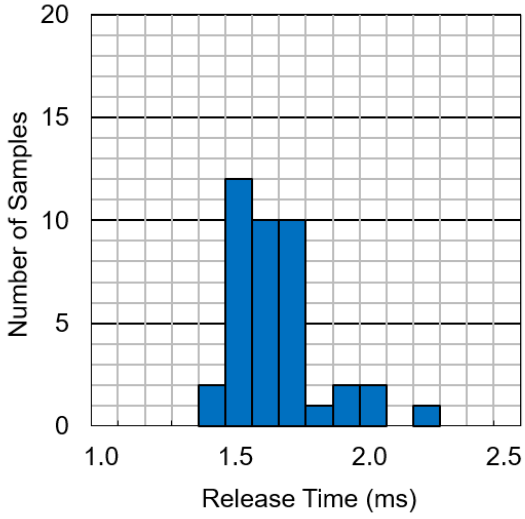
(3) Current (Sm-Co magnet), Non-latching, 12-V type





(4) New (Fe-Cr-Co magnet), Non-latching, 12-V type

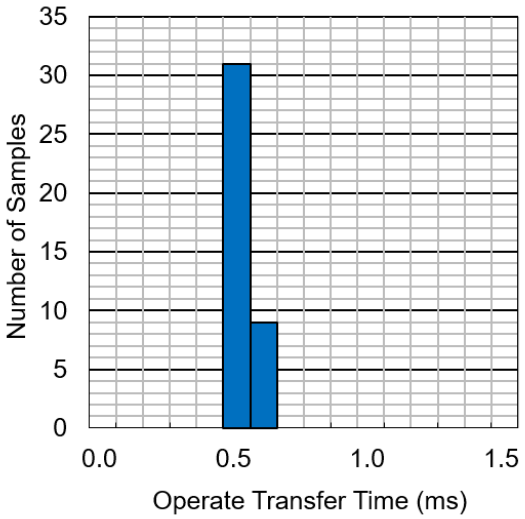


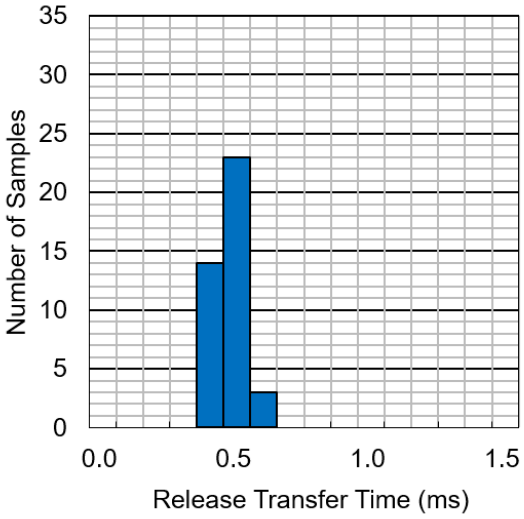


3. Transfer time

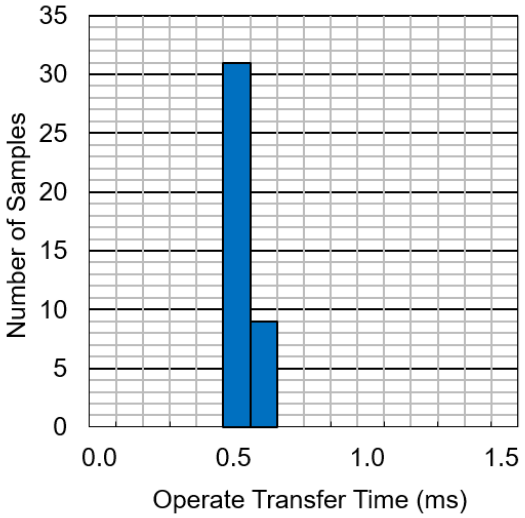
This section gives data on the transfer time, which is the total time between the breaking of one set of contacts and the making of another. This data was measured with a diode added in parallel with the coil to prevent a counter electromotive force. This timing data shows the smaller values of the two sets of contacts.

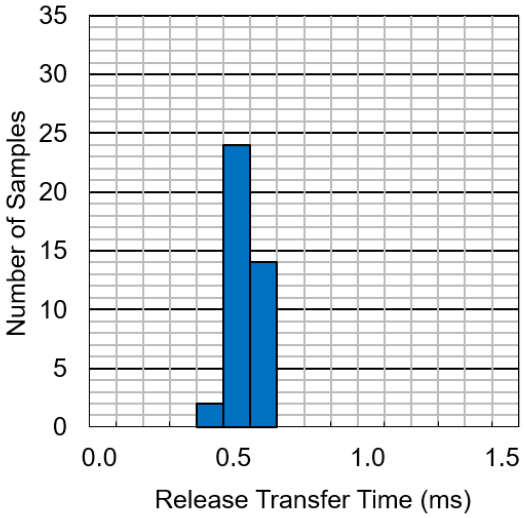
(1) Current (Sm-Co magnet), Non-latching, 5-V type



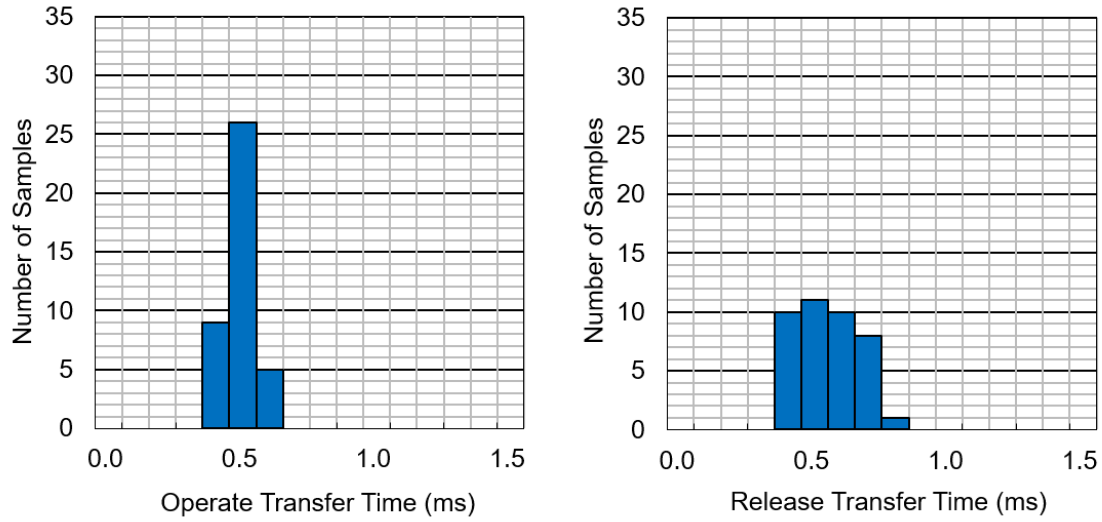


(2) New (Fe-Cr-Co magnet), Non-latching, 5-V type

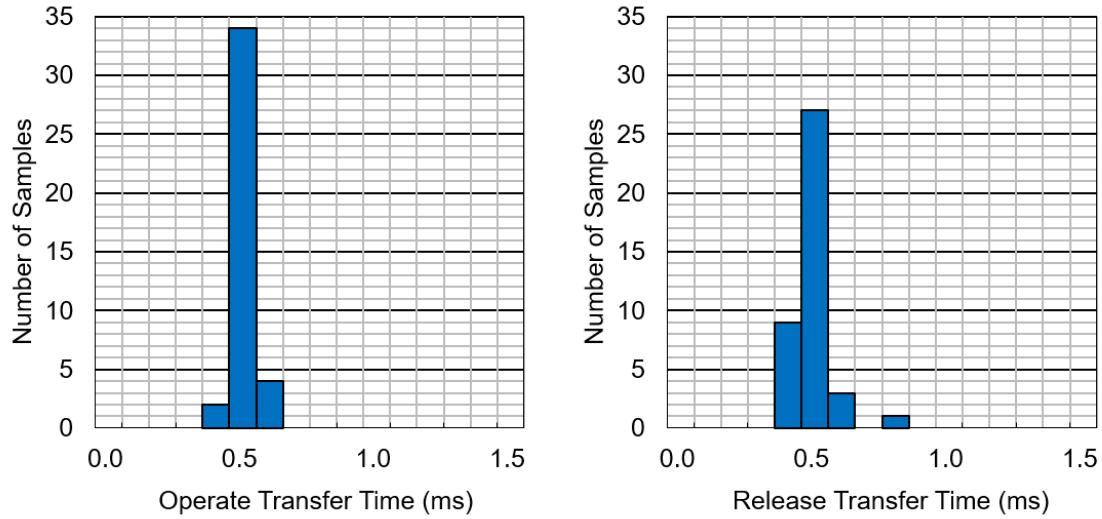




(3) Current (Sm-Co magnet), Non-latching, 12-V type



(4) New (Fe-Cr-Co magnet), Non-latching, 12-V type

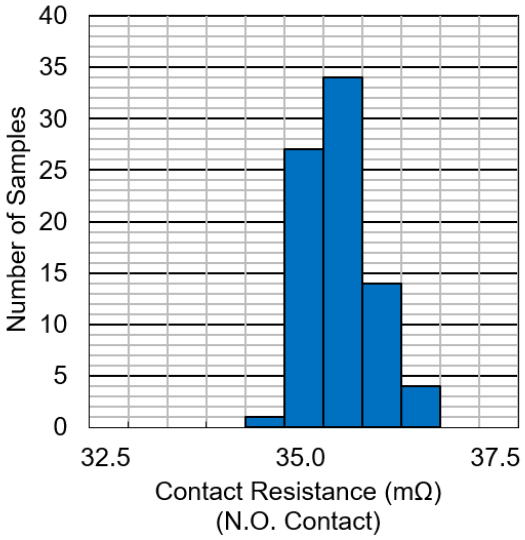


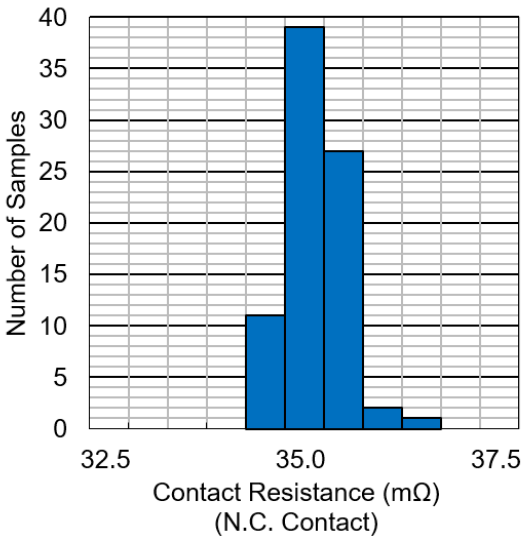
4. Contact resistance

This section gives data on the resistance of the contacts when the contacts are closed. Since each relay consists of two sets of contacts, the total number of samples is 80. The initial specifications are as follows.

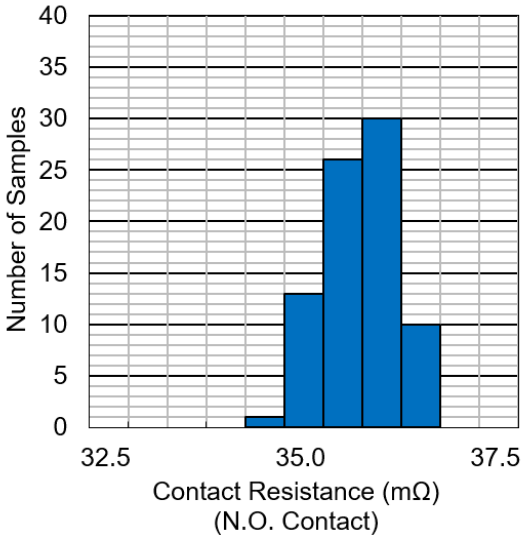
Contact Resistance: 75 mΩ or less

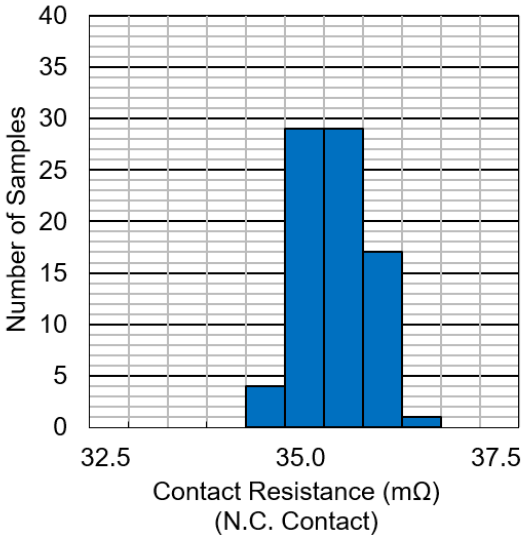
(1) Current (Sm-Co magnet), Non-latching, 5-V type



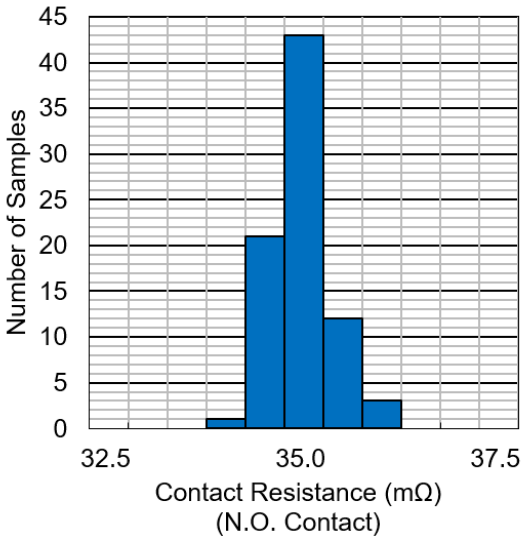


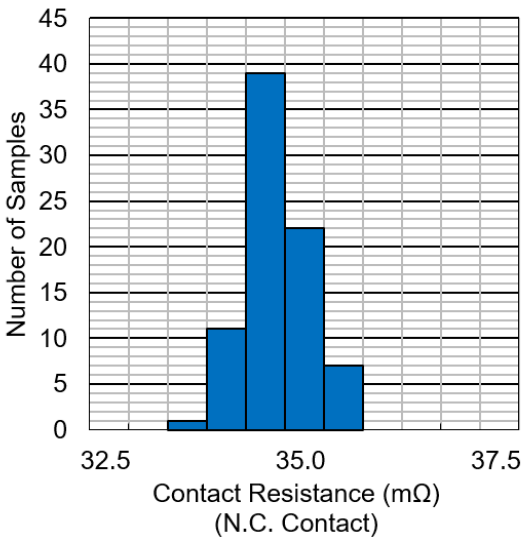
(2) New (Fe-Cr-Co magnet), Non-latching, 5-V type



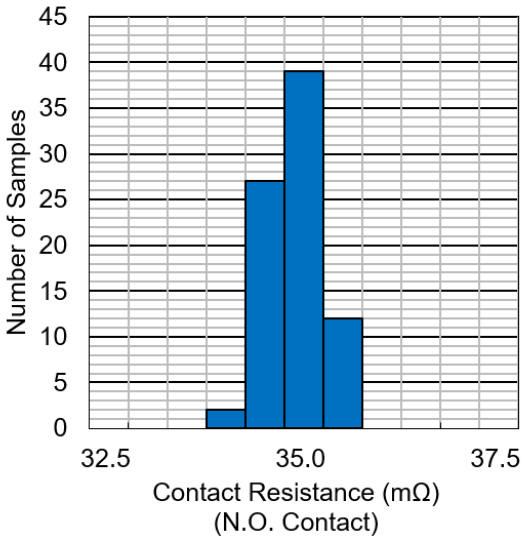


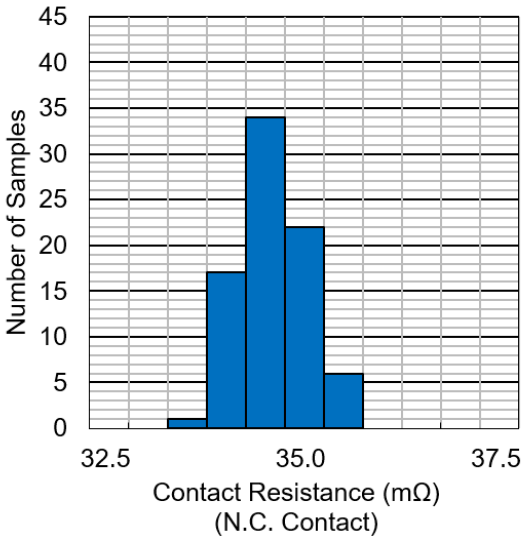
(3) Current (Sm-Co magnet), Non-latching, 12-V type





(4) New (Fe-Cr-Co magnet), Non-latching, 12-V type





* We will prepare other scheduled materials as soon as possible, but as of now, we are planning the following schedule:

- EC2/EE2 Relay Reliability Evaluation Results: Around October 2026
- EA2/EB2 Relay Characteristic Distributions: Around November 2026
- EA2/EB2 Relay Reliability Evaluation Results: Around February 2027

Regarding the EC2/EE2 High Breakdown Voltage type relays (NK type), since the effective date of the change differs, we will provide separate notification via PCN.

Signal Relay Part Number
EC2-12NJ
EC2-12NQJ
EC2-12NU
EC2-12SNJ
EC2-12SNQJ
EC2-12SNU
EC2-12TNJ
EC2-12TNQJ
EC2-12TNU
EC2-24NJ
EC2-24NQJ
EC2-24NU
EC2-24SNJ
EC2-24SNQJ
EC2-24SNU
EC2-24TNJ
EC2-24TNQJ
EC2-24TNU
EC2-3NJ
EC2-3NQJ
EC2-3NU
EC2-3SNJ
EC2-3SNQJ
EC2-3SNU
EC2-3TNJ
EC2-3TNQJ
EC2-3TNU
EC2-4.5NJ
EC2-4.5NQJ
EC2-4.5NU
EC2-4.5SNJ
EC2-4.5SNQJ
EC2-4.5SNU
EC2-4.5TNJ
EC2-4.5TNQJ
EC2-4.5TNU
EC2-5NJ
EC2-5NQJ

Signal Relay Part Number
EC2-5SNJ
EC2-5SNQJ
EC2-5SNU
EC2-5TNJ
EC2-5TNQJ
EC2-5TNU
EC2-9NJ
EC2-9NQJ
EC2-9SNJ
EC2-9SNQJ
EC2-9TNJ
EC2-9TNQJ
EE2-12NKX
EE2-12NKX-L
EE2-12NQX-L9
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EE2-12NUH
EE2-12NUH-L
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EE2-24NU
EE2-24NUH

Signal Relay Part Number
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EE2-3NUX-L
EE2-3SNQX-L9
EE2-3SNU
EE2-3SNUH
EE2-3SNUH-L
EE2-3SNU-L
EE2-3SNUX
EE2-3SNUX-L
EE2-3TNQX-L9
EE2-3TNU
EE2-3TNUH
EE2-3TNUH-L

Signal Relay Part Number
EE2-3TNU-L
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EE2-3TNUX-L
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EE2-4.5NKX-L
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EE2-4.5NUH
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EE2-4.5SNUH
EE2-4.5SNUH-L
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EE2-4.5SNUX
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EE2-5SNU-L

Signal Relay Part Number
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EE2-5SNUX-L
EE2-5TNQX-L9
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EA2-3TNJ
EA2-3TNU
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EA2-4.5NU
EA2-4.5SNJ
EA2-4.5SNU
EA2-4.5TNJ
EA2-4.5TNU
EA2-5NJ
EA2-5NU

Signal Relay Part Number
EA2-5SNJ
EA2-5SNU
EA2-5TNJ
EA2-5TNU
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EB2-5SNU
EB2-5SNU-L
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EB2-5TNU-L