

Zertifikat

mit überwachter Konformität

Certificate

of surveyed conformity



Zertifikat Nr. Certificate No.
J 2050667

Blatt Page
01

Ihr Zeichen Client Reference
ML-700N-1

Unser Zeichen Our Reference
00143- SH/sot E9962776E01

Ausstellungsdatum Date of Issue
30.06.2000 (day/month/year)

Genehmigungsinhaber License Holder
Sato Parts Co., Ltd.
3-3-3 Ebisu
Shibuya-ku, Tokyo 150-0013
JAPAN

Fertigungsstätte Manufacturing Plant
Niigata Sato Parts Co., Ltd.
2255-2 Torigoe, Mishima-machi
Santo-gun, Niigata 940-2316
JAPAN



**TÜV
Rheinland**

Geprüft nach Tested Acc. to
EN 60947-7-1:1991+A1

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Terminal Block for PCB mounting

Type Designation : ML-700NxyPz

5

x = V or H (Terminal Type)

1

y = 1 to 200 (Number of Poles)

1

z = Optional Suffix (Max. 9 digits)

Rated Current : 3A
Rated Voltage : AC/DC 100V (pollution degree 2)
(ML-700NVyPz) : AC/DC 63V (pollution degree 3)
(ML-700NHYPz) : AC/DC 32V (pollution degree 3)

Overvoltage Category : III
Rated Impulse Withstand Voltage : 1500V
Clearance/Creepage Distance : 2.0mm (ML-700NVyPz)
1.4mm (ML-700NHYPz)
Rated Ambient Temperature : -20 to 50°C
Rated Cross Section : 0.2mm² to 0.32mm²
(AWG 24 to AWG 22)

ANLAGE (Appendix) : 1

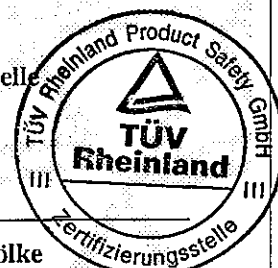
7

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product
fulfills above-mentioned requirements, the production is subject to surveillance.

Zertifizierungsstelle

W. Nölke

Dipl.-Ing. W. Nölke



TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Köln

Zertifikat

mit überwachter Konformität of surveyed conformity

Certificate



Zertifikat Nr. Certificate No.
J 2050667

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02

Ihr Zeichen Client Reference
MK2005

Unser Zeichen Our Reference
ZJL-VSZ- 09962776 002

Ausstellungsdatum
03.06.2005

Date of Issue
(day/mo/yr)

Genehmigungsinhaber License Holder
Sato Parts Co., Ltd.
3-3-3 Ebisu
Shibuya-ku, Tokyo 150-0013
Japan

Fertigungsstätte Manufacturing Plant
Niigata Sato Parts Co., Ltd.
2255-2 Torigoe
Nagaoka-shi, Niigata 940-2316
Japan

Prüfzeichen Test Mark

Geprüft nach Tested acc. to



EN 60947-7-1:2002

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification) °

Lizenzentgelte - Einheit
License Fee - Unit

Terminal Block for PCB mounting

Changes

Test Requirement : EN 60947-7-1:1991+A1

changed to : (see above)

Address of Factory : Niigata Sato Parts Co., Ltd.
2255-2 Torigoe, Mishima-machi
Santo-gun, Niigata 940-2316
JAPAN

changed to : (see above)



Zertifizierungsstelle

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product
fulfills above-mentioned-requirements, the production is subject to surveillance.

TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Köln

Dipl.-Ing. W. Herlitschke

Zertifikat **Certificate**
mit überwachter Konformität of surveyed conformity



Zertifikat Nr. Certificate No.
J 2050667

Blatt Page
03

Ihr Zeichen Client Reference	Unser Zeichen Our Reference	Ausstellungsdatum	Date of Issue
--	ZJL-MIU- 09962776 005	01.06.2012	(day/mo/yr)

Genehmigungsinhaber License Holder
Sato Parts Co., Ltd.
3-3-3 Ebisu
Shibuya-ku, Tokyo
150-0013 JAPAN

Fertigungsstätte Manufacturing Plant
Niigata Sato Parts Co., Ltd.
2255-2 Torigoe
Nagaoka-shi, Niigata
940-2316 JAPAN

Prüfzeichen Test Mark

Geprüft nach Tested acc. to



EN 60947-7-1:2009

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

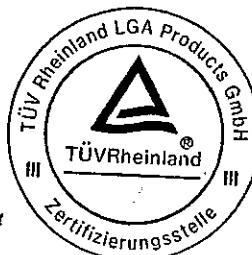
Terminal Block for PCB mounting, as page 0001

Change

Test Requirement : EN 60947-7-1:2002

changed to : (see above)

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product
fulfills above mentioned requirements, the production is subject to surveillance.



Zertifizierungsstelle

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 http://www.tuv.com/safety

Dipl.-Ing. (FH) M. Geiser

Zertifikat *Certificate*
mit überwachter Konformität *of surveyed conformity*



Zertifikat Nr. *Certificate No.*
J 2050667

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04

Ihr Zeichen *Client Reference*
FACH-NGT

Unser Zeichen *Our Reference*
ZJL-MAA- 09962776 006

Ausstellungsdatum *Date of Issue*
30.04.2015
(day/mo/yr)

Genehmigungsinhaber *License Holder*
Sato Parts Co., Ltd.
3-3-3 Ebisu
Shibuya-ku, Tokyo
150-0013 JAPAN

Fertigungsstätte *Manufacturing Plant*
Sato Parts Co., Ltd. Niigata Factory
2255-2 Torigoe
Nagaoka-shi, Niigata
940-2316 JAPAN

Prüfzeichen *Test Mark*

Geprüft nach *Tested acc. to*



EN 60947-7-1:2009

Zertifiziertes Produkt *(Geräteidentifikation)*
Certified Product *(Product Identification)*

Lizenzentgelte - Einheit
License Fee - Unit

Terminal Block for PCB mounting, as page 0001

Change

Name of Factory: Niigata Sato Parts Co., Ltd.

changed to: (see above)



Zertifizierungsstelle

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product
fulfills above mentioned requirements, the production is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 <http://www.tuv.com/safety>

Vilmos Sztaroveczki

Zertifikat **Certificate**
mit überwachter Konformität of surveyed conformity



Zertifikat Nr. *Certificate No.*
J 2050667

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05

Ihr Zeichen *Client Reference*
TUV-ADD-CH

Unser Zeichen *Our Reference*
ZJL-MAA- 09962776 006

Ausstellungsdatum *Date of Issue*
27.09.2016 (day/mo/yr)

Genehmigungsinhaber *License Holder*
Sato Parts Co., Ltd.
3F Sanyu Bldg. 3-42-1, Hongo
Bunkyo-ku, Tokyo
113-0033 Japan

Fertigungsstätte *Manufacturing Plant*
Sato Parts Co., Ltd. Niigata Factory
2255-2 Torigoe
Nagaoka-shi, Niigata
940-2316 Japan

Prüfzeichen *Test Mark*

Geprüft nach *Tested acc. to*



EN 60947-7-1:2009

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Terminal Block for PCB mounting, as page 0001

Change

Address of
License Holder: 3-3-3 Ebisu, Shibuya-ku, Tokyo
150-0013 JAPAN

changed to: (see above)



Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product
fulfills above mentioned requirements, the production is subject to surveillance.

Zertifizierungsstelle

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 http://www.tuv.com/safety

Vilmos Sztaroveczki

Zertifikat **Certificate**
mit überwachter Konformität of surveyed conformity



Zertifikat Nr. *Certificate No.*
J 2050667

Blatt *Page*
06

Ihr Zeichen *Client Reference*
ADD-CH

Unser Zeichen *Our Reference*
ZJL-MAA- 09962776 006

Ausstellungsdatum
27.02.2020

Date of Issue
(day/mo/yr)

Genehmigungsinhaber *License Holder*
Sato Parts Co., Ltd.
3-3-8, Sotokanda,
Chiyoda-ku, Tokyo
101-0021 Japan

Fertigungsstätte *Manufacturing Plant*
Sato Parts Co., Ltd. Niigata Factory
2255-2 Torigoe
Nagaoka-shi, Niigata
940-2316 Japan

Prüfzeichen *Test Mark*

Geprüft nach *Tested acc. to*



EN 60947-7-1:2009

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Terminal Block for PCB mounting, as page 0001

Change

Address of
License Holder: 3F Sanyu Bldg. 3-42-1, Hongo
Bunkyo-ku, Tokyo
113-0033 Japan

changed to: (see above)



Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product
fulfills above mentioned requirements, the production is subject to surveillance.

Zertifizierungsstelle

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 http://www.tuv.com/safety

Dipl.-Ing. (FH) F. Becker

Constructional Data Form

page 1 of 6

Applicant: Sato Parts Co., Ltd.
Full Address: 3-3-3 Ebisu, Shibuya-ku, Tokyo 150-0013, Japan

Factories: Niigata Sato Parts Co., Ltd.
Full Address: 2255-2 Torigoe, Mishima-machi, Santo-gun, Niigata 940-2316, Japan

Kind of Equipment: Terminal Block

Type Designation: ML-700NxyPz <see also page 2/6>

Mark of origin: **SATO PARTS**

Rated voltage: ML-700NVyPz: 100V (AC/DC) at pollution degree 2
63V (AC/DC) at pollution degree 3
ML-700NHypz: 100V (AC/DC) at pollution degree 2
32V (AC/DC) at pollution degree 3

Rated current: 3A

Temperature range: -20 to +50°C

Protection degree: IP00

Life time cycles:

Number of contacts: 1 to 200

Overvoltage category: III

Pollution degree: 2 or 3

Creepage distance: ML-700NVyPz: 2.0mm
ML-700NHypz: 1.4mm

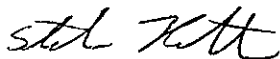
Clearance distance: ML-700NVyPz: 2.0mm
ML-700NHypz: 1.4mm

Rated cross-sections: for flexible conductors: 0.2mm² (AWG24) to 0.32mm² (AWG22)
for rigid conductors: AWG24 to AWG22

Rated impulse withstand voltage: 1500V

Dimensions: <see pages 3/6 to 6/6>

Köln, den 17.6.2000



TÜV Rheinland
Product Safety GmbH

3-3-3 Ebisu, Shibuya-ku,
Tokyo 150-0013, Japan

(Place)



(stamp and/or signature of applicant)

June 1, 2000
(Date)

Constructional Data Form

Parts: Sectional block: PA66. Polyamide, 66 nylon (0.41mm, 94V-0), any color
Materials: UBE Industries Ltd., type 2015SV or 2015SE
End plate: PA66. Polyamide, 66 nylon (0.41mm, 94V-0), any color
UBE Industries Ltd., type 2015SV or 2015SE
Wire terminal: Plated copper alloy
Spring: Stainless steel
Wire release: PPHOX. Polyphenylene oxide (0.79mm, 94V-0), any color
Mitsubishi Engineering Plastics Corp., type AN60

Operation instructions:

- To be securely attached to a PCB
- Not for protective earth connection
- Suitable installation has to be maintained by built-in conditions
- Number of conductors on each terminal assembly is 1

Type nomenclature: ML-700NxyPz

x = Terminal type
V = Vertical
H = Horizontal
y = Number of poles
Number with a maximum of three digits
z = Suffix
Optional, maximum of nine digits, consists of numbers and/or letters. Denotes customer code and/or drawing number etc.

Köln, den 19.6.2000

StL Ktt

TÜV Rheinland
Product Safety GmbH

3-3-3 Ebisu, Shibuya-ku,
Tokyo 150-0013, Japan
(Place)

M. Shimizu

(stamp and/or signature of applicant)

June 1, 2000
(Date)

Constructional Data Form

page 3 of 6

All dimensions are nominal, except where specifically described.

Length varies with number of terminal

1.3

3.0

1.0

A-A' SECTION

0.8

5.08

2.71

1.7

2.54

2.54

0.4

1.5

2.54

2.54

A

A'

min. 3.0

14.0

10.0

1.65

① Sectional Block
② Wire Terminal
③ Spring
④ Wire Release
⑤ End Plate

2.54

2.54

1.0

Mounting for PCB

Model: ML-700N (Series)
Cat. No.: ML-700NV ###P
###: denotes number of terminals.
may be maximum three digits.

THIRD ANGLE	UNIT: MM	SATO PARTS
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Köln, den 11.6.2000

SAT KH

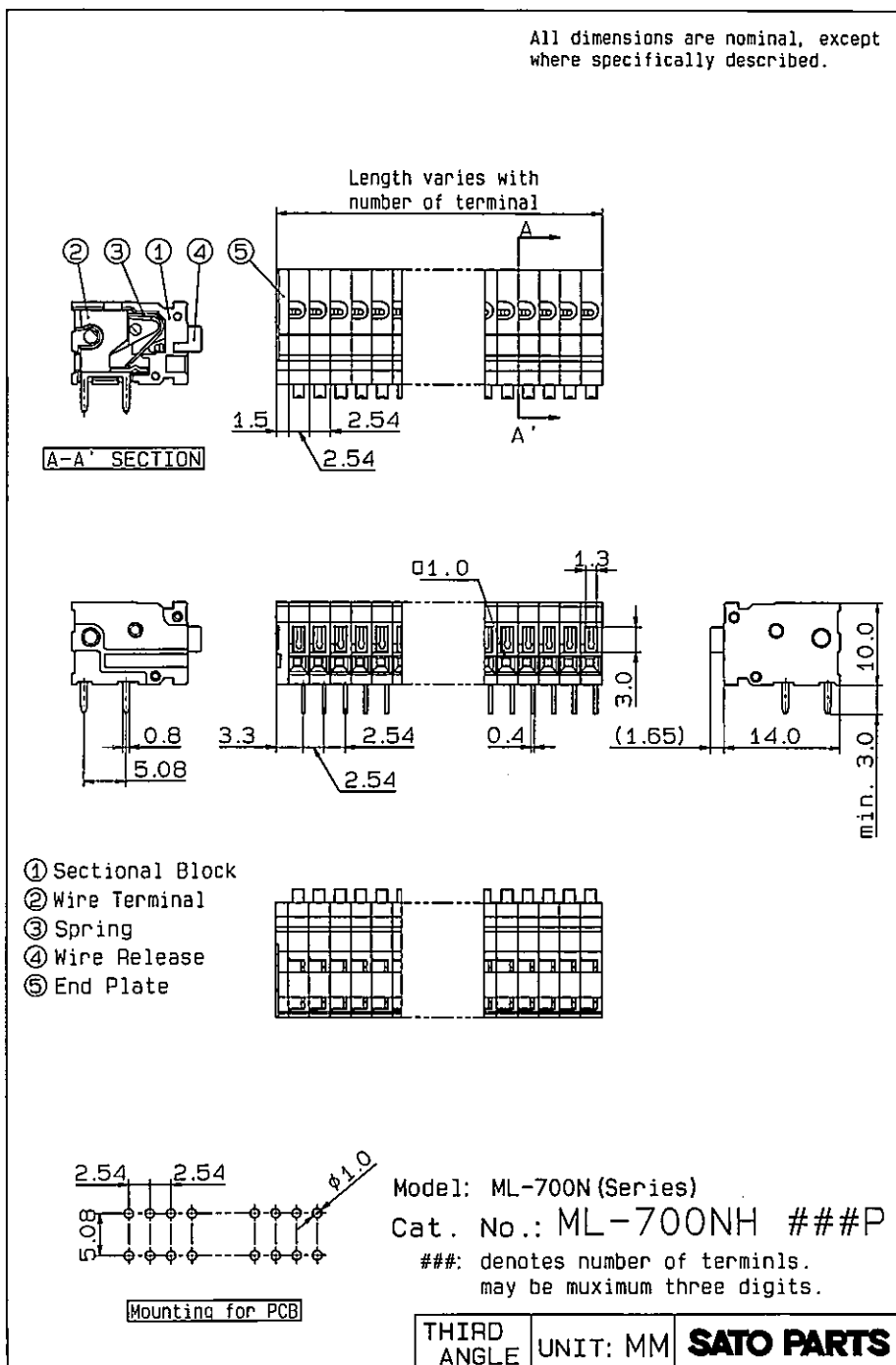
TÜV Rheinland
Product Safety GmbH

3-3-3 Ebisu, Shibuya-ku,
Tokyo 150-0013, Japan
(Place)

(stamp and/or signature of applicant)

June 1, 2000
(Date)

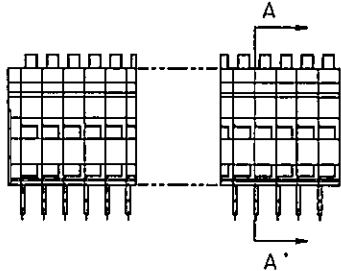
page 4 of 6



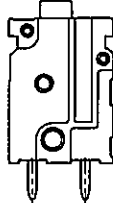
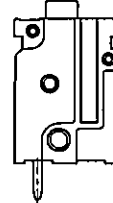
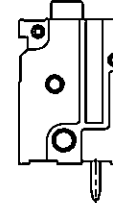
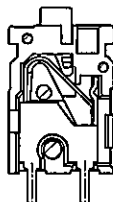
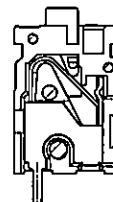
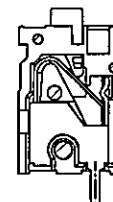
CONTACT: www@nrc.ca 1-877-274-6971

Constructional Data Form

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ML-700NV

Left view			
A-A' SECTION			
	basic model	alternate type 1	alternate type 2

Alternate type

Model: ML-700N (Series)
Cat. No.: ML-700NV ###P
###: denotes number of terminals.
may be maximum three digits.

THIRD ANGLE	UNIT: MM	SATO PARTS
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Köln, den 19.5.2000

Stefan Kott

TÜV Rheinland
Product Safety GmbH

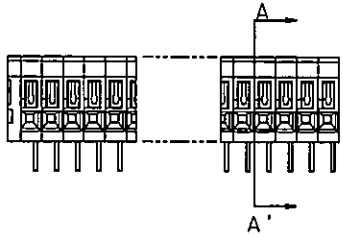
3-3-3 Ebisu, Shibuya-ku,
Tokyo 150-0013, Japan
(Place)

M. Shimamura
(stamp and/or signature of applicant)

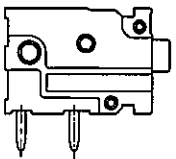
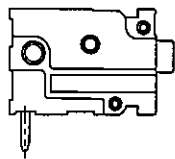
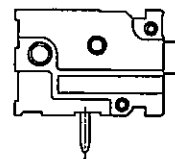
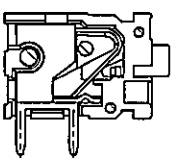
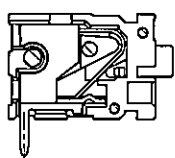
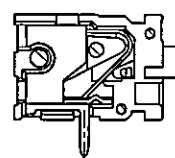
June 1, 2000
(Date)

Constructional Data Form

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ML-700NH

Left view			
A-A' SECTION			
	basic model	alternate type 1	alternate type 2

Alternate type

Model: ML-700N (Series)
Cat. No.: ML-700NH ###P
###: denotes number of terminls.
may be maximum three digits.

THIRD ANGLE	UNIT: MM	SATO PARTS
-------------	----------	-------------------

Köln, den 19.6.2000

Stel Kth

TÜV Rheinland
Product Safety GmbH

3-3-3 Ebisu, Shibuya-ku,
Tokyo 150-0013, Japan
(Place)

M. Shimamura

(stamp and/or signature of applicant)

June 1, 2000
(Date)

NOTICE OF ALTERATIONS/MODIFICATION

(変更通知)

Applicant(申請会社名): SATO PARTS CO., LTD.

Date: 2007/12/26

Signature: *M. Masuda*
(サイン)

Ref.No. _____

Page: _____

Product(製品名): TERMINALBLOCK

Type designation(型式): ML-700N

Report No.: _____

License No.: J2050667

Method(Design/Component) Presently Employed (変更前: 現行)	Alteration/Modification to be Introduced (変更後)
No Spacers	Spacer(Newly added) Empty sectional block of ML-700N series are used as a spacer. This spacer could be used both V type and H type.

- 記入の仕方: 変更前(現行)と変更後の対比、違いが明確に理解できる書き方(英語)をお願いします。

NOTICE OF ALTERATIONS/MODIFICATION

(変更通知)

Applicant (申請会社名) : Sato Parts Co., Ltd. (サトーパーツ株式会社)

Signature: Y. SAKURAGI

(サイン)

Ref. No.: SH/yos-E 9962776E01

Date: 2009/8/17

Page: 1/1

Product (製品名) : TERMINAL BLOCK

Type designation (型式) : ML-700NxyPz

Report No.: 09962776 004

License No.: J 2050667

Methods (Design / Component) Presently Employed (変更前 : 現行)	Alteration/Modification to be Introduced (変更後)
Parts: Materials: Sectional Block: PA66. Polyamide, 66 nylon (0.41mm,94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE End Plate : PA66. Polyamide, 66 nylon (0.41mm,94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE Wire Terminal : Plated copper alloy Spring : Stainless steel Wire Release : PPHOX. Polyphenylene oxide (0.79mm, 94V-0), any color Mitsubishi Engineering Plastics Corp., type AN60	Parts: Materials: Sectional Block: PA66. Polyamide, 66 nylon (0.41mm,94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE End Plate : PA66. Polyamide, 66 nylon (0.41mm,94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE Wire Terminal : Plated copper alloy Spring : Stainless steel Wire Release : PPHOX. Polyphenylene oxide (0.79mm, 94V-0), any color Mitsubishi Engineering Plastics Corp., type AN60 <u>Alternate:</u> PPHOX. Polyphenylene oxide (0.79mm, 94V-0), any color Mitsubishi Engineering Plastics Corp., type LN60

 TUV Rheinland Japan
 Genehmigt/Approved
6 Oct. 2009
M. Ueki

 Ref. No.:
09962776 004

● 記入の仕方： 変更前（現行）と変更後の対比、違いが明確に理解できる書き方（英語）をお願いします。特に1次側の変更か2次側の変更かを明記下さい。

NOTICE OF ALTERATIONS/MODIFICATION (変更通知)

Applicant (申請会社名) : Sato Parts Co., Ltd. (サトーパーツ株式会社)

Signature: D. Sato

(サイン)

Ref. No.:

Date: 2012/11/9

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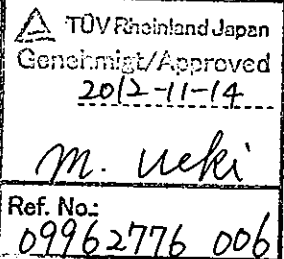
Product (製品名): TERMINAL BLOCK

Type designation (型式): ML-700NxyPz

Report No.:

License No.: J 2050667

Methods (Design / Component) Presently Employed (変更前 : 現行)	Alteration/Modification to be Introduced (変更後)
Parts: Materials: Sectional Block: PA66. Polyamide, 66 nylon (0.41mm,94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE End Plate : PA66. Polyamide, 66 nylon (0.41mm,94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE	Parts: Materials: Sectional Block: PA66. Polyamide, 66 nylon (0.41mm,94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE <u>Alternate:</u> PA66. Polyamide, 66 nylon (0.4mm,94V-0), any color LANXESS AG, type A30SFN31 End Plate : PA66. Polyamide, 66 nylon (0.41mm,94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE <u>Alternate:</u> PA66. Polyamide, 66 nylon (0.4mm,94V-0), any color LANXESS AG, type A30SFN31



TOV Rheinland Japan
Genehmigt/Approved
2012-11-14
m. ueki
Ref. No.:
09962776 006

● 記入の仕方： 変更前（現行）と変更後の対比、違いが明確に理解できる書き方（英語）をお願いします。特に1次側の変更か2次側の変更かを明記下さい。

NOTICE OF ALTERATIONS/MODIFICATION

(変更通知)

Applicant (申請会社名): Sato Parts Co., Ltd. Date: 2023-12-5

Signature (サイン): Yutaka Kodama Ref. No.: Page: 1 of 1

Product (製品名): Terminal Block Type designation (型式): ML-700NxyPz

Report No.: 09962776 007 License No.: J 2050667

Methods (Design / Component) Presently Employed (変更前 : 現行)	Alteration/Modification to be Introduced (変更後)
Parts: Materials: Sectional Block: PA66. Polyamide, 66 nylon (0.41mm, 94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE <u>Alternate:</u> PA66. Polyamide, 66 nylon (0.4mm, 94V-0), any color LANXESS AG, type A30SFN31 End Plate : PA66. Polyamide, 66nylon (0.41mm, 94V-0), any color UBE Industries Ltd., type 2015SV or 2015SE <u>Alternate:</u> PA66. Polyamide, 66 nylon (0.4mm, 94V-0), any color LANXESS AG, type A30SFN31 Wire Release : PPHOX. Polyphenylene oxide (0.79mm, 94V-0), any color Mitsubishi Engineering Plastics Corp., type AN60 <u>Alternate:</u> PPHOX. Polyphenylene oxide (0.79mm, 94V-0), any color Mitsubishi Engineering Plastics Corp., type LN60	Parts: Materials: Sectional Block: PA66. Polyamide, 66 nylon (0.4mm, 94V-0), any color LANXESS AG, type A30SFN31 End Plate : PA66. Polyamide, 66 nylon (0.4mm, 94V-0), any color LANXESS AG, type A30SFN31 Wire Release : PPE / PS. Polyphenylene Ether / Polystyrene (0.75mm, 94V-0), any color GLOBAL POLYACETAL CO., LTD., type LN60 TÜV Rheinland Japan Genehmigt/Approved 2024-01-30  Rep. No.:

● 記入の仕方 : 変更前 (現行) と変更後の対比、違いが明確に理解できる書き方 (英語) でお願いします。
特に 1 次側の変更か 2 次側の変更かを明記下さい。

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