Zertifikat *Certificate*

mit überwachter Konformität *of surveyed conformity*

TÜV

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 (day/mo/yr)* 30.06.2000

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)** **Lizenzentgelte - Einheit**
Certified Product *(Product Identification)* *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)

7

ANLAGE (Appendix) : 1

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 Product Safety GmbH Zertifizierungsstelle

Dipl.-Ing. W. Nölke

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

10/020 7.95Q

Zertifikat *Certificate*

mit überwachter Konformität *of surveyed conformity*

TÜV

Zertifikat Nr. *Certificate No.*	Blatt *Page*
J 2050667	02

Ihr Zeichen *Client Reference*	Unser Zeichen *Our Reference*	Ausstellungsdatum	*Date of Issue (day/mo/yr)*
MK2005	ZJL-VSZ- 09962776 002	03.06.2005	

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*

TÜV

Geprüft nach *Tested acc. to*

EN 60947-7-1:2002

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product *(Product Identification)* [9]

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)

TÜV Rheinland Product Safety GmbH
TÜV Rheinland
Zertifizierungsstelle

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

10/020 2.03

Zertifikat *Certificate*

mit überwachter Konformität *of surveyed conformity*

TÜVRheinland®

Zertifikat Nr. *Certificate No.* J 2050667

Blatt *Page* 03

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

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*

TÜVRheinland®

Geprüft nach *Tested acc. to*

EN 60947-7-1:2009

Zertifiziertes Produkt **(Geräteidentifikation)** **Lizenzentgelte - Einheit**
Certified Product *(Product Identification)* *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.

TÜV Rheinland LGA Products GmbH TÜVRheinland Zertifizierungsstelle

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

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Zertifikat *Certificate*

mit überwachter Konformität *of surveyed conformity*

TÜVRheinland®

Zertifikat Nr. *Certificate No.*
J 2050667

Blatt *Page*
04

Ihr Zeichen *Client Reference*	**Unser Zeichen** *Our Reference*	**Ausstellungsdatum**	*Date of Issue (day/mo/yr)*
FACH-NGT	ZJL-MAA- 09962776 006	30.04.2015	

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*

TÜVRheinland CERTIFIED
Safety
Regular Production Surveillance
www.tuv.com
ID 0800000000

Geprüft nach *Tested acc. to*

EN 60947-7-1:2009

Zertifiziertes Produkt **(Geräteidentifikation)** **Lizenzentgelte - Einheit**
Certified Product *(Product Identification)* *License Fee - Unit*

Terminal Block for PCB mounting, as page 0001

Change

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

changed to: (see above)

TÜV Rheinland LGA Products GmbH
TÜVRheinland®
Zertifizierungsstelle

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

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Zertifikat *Certificate*

mit überwachter Konformität *of surveyed conformity*

TÜVRheinland®

Zertifikat Nr. *Certificate No.*
J 2050667

Blatt *Page*
05

Ihr Zeichen *Client Reference*	**Unser Zeichen** *Our Reference*	**Ausstellungsdatum**	*Date of Issue (day/mo/yr)*
TUV-ADD-CH	ZJL-MAA- 09962776 006	27.09.2016	

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*

TÜVRheinland CERTIFIED
Safety
Regular Production Surveillance
www.tuv.com
ID 0800000000

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)

TÜV Rheinland LGA Products GmbH
TÜVRheinland®
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.

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

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Zertifikat *Certificate*

mit überwachter Konformität *of surveyed conformity*

TÜVRheinland®

Zertifikat Nr. *Certificate No.*	**Blatt** *Page*
J 2050667	06

Ihr Zeichen *Client Reference*	**Unser Zeichen** *Our Reference*	**Ausstellungsdatum**	*Date of Issue (day/mo/yr)*
ADD-CH	ZJL-MAA- 09962776 006	27.02.2020	

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*

TÜVRheinland CERTIFIED
Safety
Regular Production Surveillance
www.tuv.com
ID 0800000000

Geprüft nach *Tested acc. to*

EN 60947-7-1:2009

Zertifiziertes Produkt **(Geräteidentifikation)** **Lizenzentgelte - Einheit**
Certified Product *(Product Identification)* *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)

TÜV Rheinland LGA Products GmbH
TÜVRheinland®
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.

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

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TÜV Rheinland
Am Grauen Stein
D-51105 Köln

Certificate No.: J 2050667
Our reference: SH/yos-E 9962776E01
Appendix No.: 1

(To be filled in by TÜV Rheinland)

Constructional Data Form

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 19.6.2000

TÜV Rheinland
Product Safety GmbH

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

June 1, 2000
(Date)

(stamp and/or signature of applicant)

Constructional Data Form

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

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

TÜV Rheinland
Product Safety GmbH

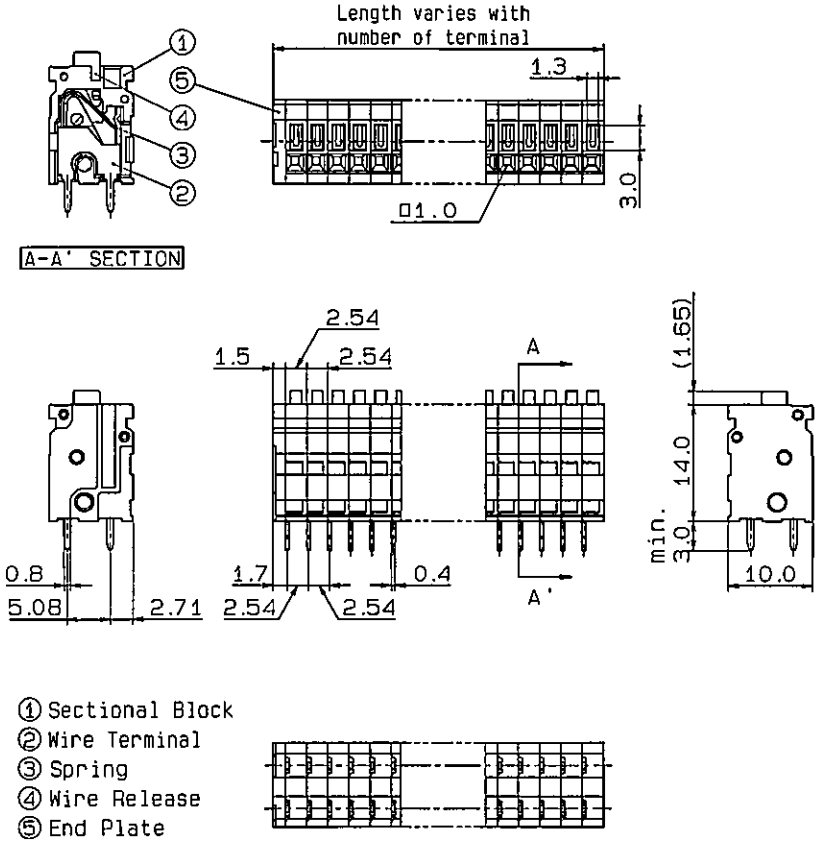
3-3-3 Ebisu, Shibuya-ku,
Tokyo 150-0013, Japan
(Place)

June 1, 2000
(Date)

(stamp and/or signature of applicant)

Constructional Data Form

All dimensions are nominal, except where specifically described.



Model: ML-700N (Series)

Cat. No.: ML-700NV ###P

###: denotes number of terminls. may be muximum three digits.

THIRD ANGLE	UNIT: MM	SATO PARTS

Köln, den 11. 6. 2000

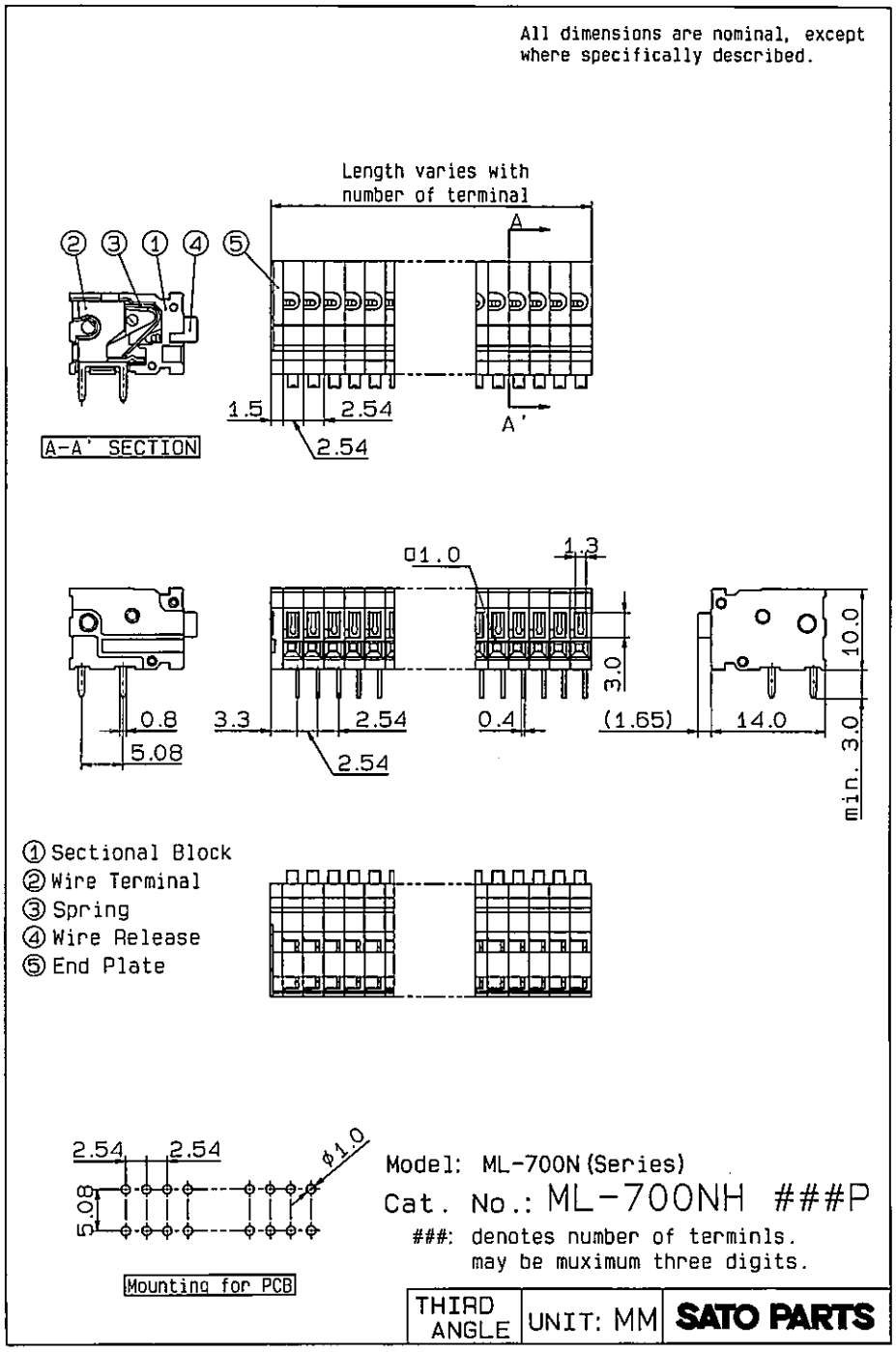
TÜV Rheinland
Product Safety GmbH

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

June 1, 2000
(Date)

(stamp and/or signature of applicant)

Constructional Data Form



Köln, den 19.6.2000

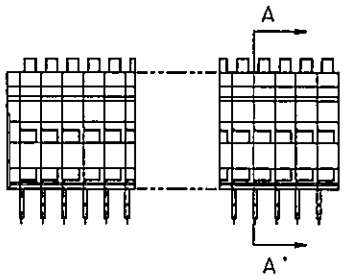
TÜV Rheinland
Product Safety GmbH

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

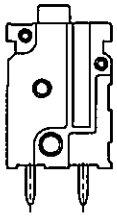
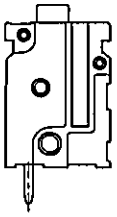
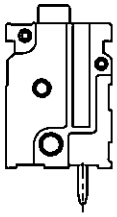
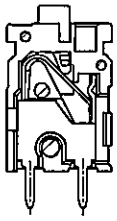
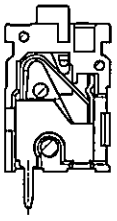
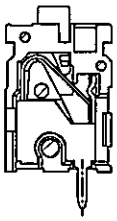
June 1, 2000
(Date)

(stamp and/or signature of applicant)

Constructional Data Form



ML-700NV

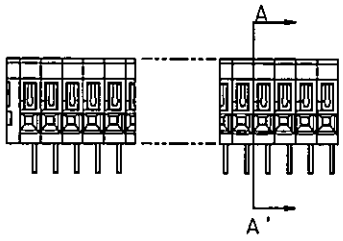
Left view			
A-A' SECTION			
	basic model	alternate type 1	alternate type 2

Alternate type

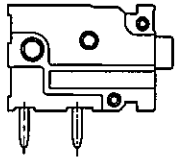
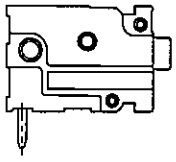
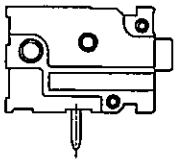
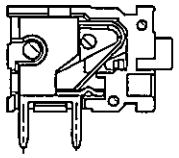
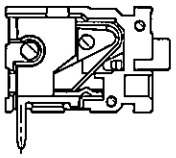
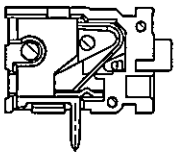
Model: ML-700N (Series)
Cat. No.: ML-700NV ###P
###: denotes number of terminls.
may be muximum three digits.

THIRD ANGLE	UNIT: MM	SATO PARTS

Constructional Data Form



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 muximum three digits.

THIRD ANGLE	UNIT: MM	SATO PARTS

NOTICE OF ALTERATIONS/MODIFICATION

(変更通知)

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

Date: 2007/12/26

Signature: (サイン)

Ref.No.

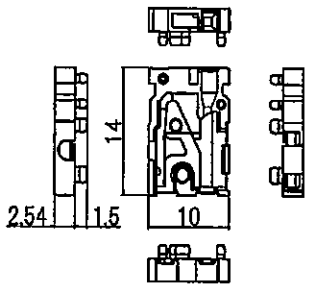
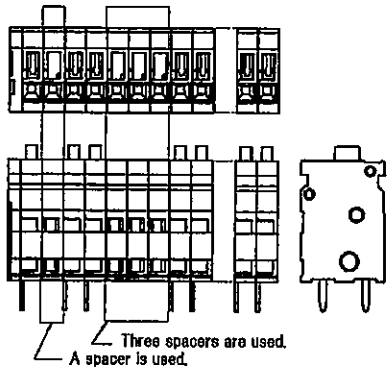
Page:

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)	Alterration/Modification to be Introduced (変更後)
No Spacers TÜV Rheinland Japan Product Safety Dept Genehmigt/Approved 28. 01. 2008 M. Matsuda Rep. No.: 09962776 003	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.  Example for V type  Spacers could be used at any position and any pieces.

● 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。

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)

Date: 2009/8/17

Signature: Y. SAKURAGI　　Ref. No.: SH/yos-E 9962776E01　　Page: 1/1

(サイン)

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 Alternate: PPHOX. Polyphenylene oxide (0.79mm, 94V-0), any color Mitsubishi Engineering Plastics Corp., type LN60 TÜV 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）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。

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)

Date: 2012/11/9

Signature: D. Sato　　Ref. No.:　　Page: 1/1

(サイン)

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 Alternate: 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 Alternate: PA66. Polyamide, 66 nylon (0.4mm,94V-0), any color LANXESS AG, type A30SFN31 TÜV 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）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。