

# Zertifikat

mit überwachter Konformität

# Certificate

of surveyed conformity



Zertifikat Nr. *Certificate No.*  
J 50023904

Blatt *Page*  
0001

Ihr Zeichen *Client Reference*  
ML-3300-1

Unser Zeichen *Our Reference*  
ZO-BWE- 12004540 002

Ausstellungsdatum  
25.03.2003

*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, Mishima-machi  
Santo-gun, Niigata 940-2316  
Japan

**Prüfzeichen *Test Mark***

**Geprüft nach *Tested acc. to***



EN 60947-7-1:2002, excluding sub-clause 8.4.6

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

**Lizenzentgelte - Einheit**  
***License Fee - Unit***

**Terminal Block (PCB-mounting type)**

Type Designation	: ML-3300xyPz, ML-3300-x-yP-z	5
	x, y, z = (see Appendix 1)	1
Number of Terminals	: 4 to 200	
Rated Connecting Capacity	: (see Appendix 1)	
Rated Operational Current	: 10A	
Rated Operational Voltage	: 250V (Pollution Degree 3)	
	300V (Pollution Degree 2)	
Rated Impulse Withstand Voltage	: 4000V	
Overvoltage Category	: III	
Pollution Degree	: 2 or 3 (see above)	
IP Degree	: IP00	
Ambient Temperature Range	: -20°C to +50°C	

6

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, Am Grauen Stein, D-51105 Köln

Dipl.-Ing. W. Nölke

# Zertifikat

# Certificate

mit überwachter Konformität of surveyed conformity



Zertifikat Nr. *Certificate No.*  
J 50023904

Blatt *Page*  
0002

Ihr Zeichen *Client Reference*  
ML-3300-2

Unser Zeichen *Our Reference*  
ZJL-VSZ- 12004540 003

Ausstellungsdatum  
16.12.2005

*Date of Issue*  
(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  
Nagaoka-shi, Niigata 940-2316  
Japan

*Prüfzeichen Test Mark*

*Geprüft nach Tested acc. to*



EN 60947-7-1:2002, excluding sub-clause 8.4.6

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

*Lizenzentgelte - Einheit*  
*License Fee - Unit*

Terminal Block (PCB-mounting type)

Change

for Type Designation ML-3300xyPz, ML-3300-x-yP-z  
x, y, z = (see Appendix 1) :

Suffix : x = A1, B1 or B2

changed to : x = A1 or blank, B1 or B2

Change

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

changed to : (see above)

ANLAGE (Appendix) : 1.1

*Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.  
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.  
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fulfills above-mentioned-requirements, the production is subject to surveillance.*



Zertifizierungsstelle

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

Dipl.-Ing. M. Geiser

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



Zertifikat Nr. *Certificate No.*      Blatt *Page*  
J 50023904      0003

<i>Ihr Zeichen Client Reference</i>	<i>Unser Zeichen Our Reference</i>	<i>Ausstellungsdatum</i>	<i>Date of Issue</i> <i>(day/mo/yr)</i>
--	ZJL-MIU- 12004540 006	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*

**Geprüft nach** *Tested acc. to*

EN 60947-7-1:2009, excluding sub-clause 8.4.6



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

**Lizenzentgelte - Einheit**  
*License Fee - Unit*

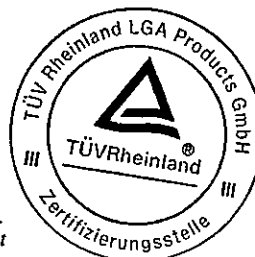
Terminal Block (PCB-mounting type), as page 0001

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.  
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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.*      Blatt *Page*  
J 50023904      0004

Ihr Zeichen *Client Reference*      Unser Zeichen *Our Reference*      Ausstellungsdatum      *Date of Issue*  
FACH-NGT      ZJL-MAA- 12004540 007      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 (PCB-mounting type), as page 0001

Change

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

changed to: (see above)

*Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.  
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**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 50023904

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0005

Ihr Zeichen *Client Reference*  
TUV-ADD-CH

Unser Zeichen *Our Reference*  
ZJL-MAA- 12004540 007

Ausstellungsdatum  
27.09.2016

*Date of Issue*  
(day/month/year)

**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 (PCB-mounting type), 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 50023904

Blatt *Page*  
0006

Ihr Zeichen *Client Reference*  
ADD-CH

Unser Zeichen *Our Reference*  
ZJL-MAA- 12004540 007

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 (PCB-mounting type), 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

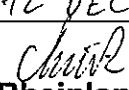
**Constructional Data Form**

Licenseholder : **Sato Parts Co., Ltd.**  
 3-3-3 Ebisu, Shibuya-ku, Tokyo 150-0013 Japan

Factory : **Niigata Sato Parts Co., Ltd.**  
 (full address) **2255-2 Torigoe, Nagaoka-shi, Niigata 940-2316 JAPAN**

Type or Model Number : **ML-3300 series**  
 Kind of device: **Terminal Block**

<b>Specifications</b>	
Type designation	ML-3300 series
Type of clamping units	<input type="checkbox"/> screw-type <input checked="" type="checkbox"/> screwless-type
Number of poles	4 to 200
Cross-section range	For flexible conductor : AWG16 to AWG24 For rigid conductor : AWG16 to AWG26
Number of clamping unit per pole	1
Max. Number of conductors per Terminal	1+1(Front +Back)
Rated voltage	AC/DC 250V(Pollution Degree 3), AC/DC 300V(Pollution Degree 2)
Rated current	10A (with AWG16 wire )
Upper limit temperature	65°C
Lower limit temperature	-20°C
Max. ambient temp. at rated current	50°C
Overvoltage category / U <sub>imp</sub>	III / 4 kV
Pollution degree	2 or 3
IP code	IP00
<b>Insulation system</b>	
Insulation system	<i>pole-pole</i> : <input checked="" type="checkbox"/> basic <input type="checkbox"/> reinforced <input type="checkbox"/> NA <i>live parts - outside</i> : <input type="checkbox"/> basic <input type="checkbox"/> reinforced <input checked="" type="checkbox"/> NA (IP 00)
Test voltages	<i>pole-pole</i> : AC4000V <i>live parts - outside</i> :
Minimum creepage distances	<i>pole-pole</i> : 4.5mm <i>live parts - outside</i> :
Minimum clearances	<i>pole-pole</i> : 4.5mm <i>live parts - outside</i> :

Köln, den 12 DEC 2005  
  
**TÜV Rheinland**  
 Product Safety GmbH

Ebisu  
 (Place)

(day/mo/yr) 8.12.2005  
 (Date)

SATO PARTS Co.,Ltd

M.Kosho  
 (Stamp and Signature of Applicant)

**Constructional Data Form**

Terminals	
Screw size	N/A
Specified tightening torque	N/A
Material of Terminal plate	Copper alloy (Plated)
Material of Terminal screw	N/A
Material of Spring washer	N/A
Kind of conductor	<input checked="" type="checkbox"/> solid <input type="checkbox"/> stranded <input checked="" type="checkbox"/> flexible
Required preparation of the conductor	N/A
max. Stripping length	9mm
max. Number of conductors per clamping unit	1

Rated current/wire size	Wire size	AWG	Current (A)
		Flexible	
	1.25 mm <sup>2</sup>	16	10
	0.75 mm <sup>2</sup>	18	7
	0.5 mm <sup>2</sup>	20	5
	0.3 mm <sup>2</sup>	22	3
	0.2 mm <sup>2</sup>	24	2
	Rigid		
	Φ 1.2 mm (1.1 mm <sup>2</sup> )	16	10
	Φ 1.0 mm (0.78 mm <sup>2</sup> )	18	7
	Φ 0.8 mm (0.5 mm <sup>2</sup> )	20	5
	Φ 0.5 mm (0.2 mm <sup>2</sup> )	24	2
	Φ 0.4 mm (0.13 mm <sup>2</sup> )	26	1

Köln, den 12 DEC 2005

**TÜV Rheinland**  
 Product Safety GmbH

Ebisu  
 (Place)

(day/mo/yr) 8.12.2005  
 (Date)

SATO PARTS Co.,Ltd

M.Kosho

(Stamp and Signature of Applicant)



**Constructional Data Form**

Plastic Materials					
Part	Material	Type designation Manufacturer	RTI	Flamm ability	Material group
Material of Housing and End Plates	Polyamide, Type 66 Nylon	2015SV, any color UBE INDUSTRIES LTD	RTI:65°C	V-0	I
Material of Wire Release	Polyphenylene	AN60, any color MITSUBISHI ENGINEERING-PLASTICS	RTI:105°C	V-0	III
Material of Cover (Optional)	Polycarbonate	S-2000V MITSUBISHI ENGINEERING-PLASTICS	RTI:80°C	V-2	III
Material of Marker (Optional)	Paper	—	—	—	—

**TYPE NOMENCLATURE:**

ML—3300 xyPz or ML—3300—x—yP—z

ML—3300 — Basic construction (Model No.)

x — Combination of Housing, End Plate, Cover and Marker

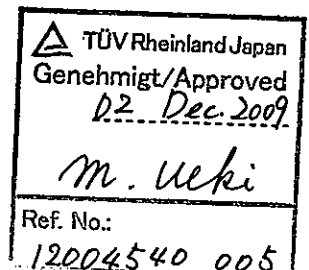
A1 or blank —Housing, End Plate(C), End Plate(D)

B1 —Housing, End Plate(A), End Plate(B), Cover and Marker

B2 —Housing, End Plate(A), End Plate(B)

y — Number of terminals(poles) : 4 (or 04 or 004) to 200

z — Blank or maximum 15 digits numbers or letters denotes drawing numbers, etc.



Köln, den 12 DEC 2005

**TÜV Rheinland**  
 Product Safety GmbH

Ebisu  
 (Place)

(day/mo/yr) 8.12.2005  
 (Date)

SATO PARTS Co.,Ltd

M.Kosho

(Stamp and Signature of Applicant)

# 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-3300 series

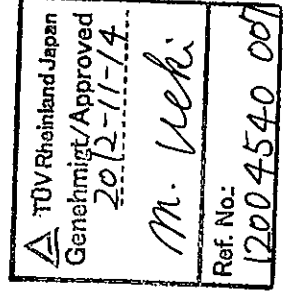
Report No.: \_\_\_\_\_ License No.: J 50023904

## Methods (Design / Component) Presently Employed (変更前 : 現行)

Plastic Materials					
Part	Material	Type designation Manufacturer	RTI	Flame ability	Material group
Material of Housing and End Plates	Polyamide, Type 66 Nylon	2015SV, any color UBE INDUSTRIES LTD	RTI:65°C	V-0	I
		2015SE, any color UBE INDUSTRIES LTD	RTI:65°C	V-0	I
		FR370, any color ASAHI KASEI CHEMICALS CORP	RTI:95°C	V-0	I

## Alteration/Modification to be Introduced (変更後)

Plastic Materials					
Part	Material	Type designation Manufacturer	RTI	Flame ability	Material group
Material of Housing and End Plates	Polyamide, Type 66 Nylon	2015SV, any color UBE INDUSTRIES LTD	RTI:65°C	V-0	I
		2015SE, any color UBE INDUSTRIES LTD	RTI:65°C	V-0	I
		FR370, any color ASAHI KASEI CHEMICALS CORP  Alternate: A30SFN31, any color LANXESS AG	RTI:95°C	V-0	I
			RTI:125 °C	V-0	I



● 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) でお願いいたします。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: 2009-12-02

Signature: \_\_\_\_\_ Ref. No.: \_\_\_\_\_

Page: 1/1

(サイン)

Product (製品名) : TERMINAL BLOCK Type designation (型式) : ML-3300 series

Report No.: ZJL-VSZ-12004540 003 License No.: J 50023904

## Methods (Design / Component) Presently Employed

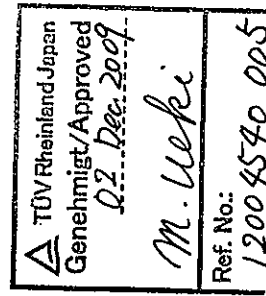
( 変更前 : 現行 )

Plastic Materials					
Part	Material	Type designation Manufacturer	RTI	Flame ability	Material group
Material of Cover	Polycarbonate	S-2000V MITSUBISHI ENGINEERING-PLASTICS	RTI:80 °C	V-2	II
Material of Marker	Paper	-	-	-	-

## Alteration/Modification to be Introduced

( 変更後 )

Plastic Materials					
Part	Material	Type designation Manufacturer	RTI	Flame ability	Material group
Material of Cover (Optional)	Polycarbonate	S-2000V MITSUBISHI ENGINEERING-PLASTICS	RTI:80 °C	V-2	III
Material of Marker (Optional)	Paper	-	-	-	-



● 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)

Date: 2009/8/17

Signature: Y. SAKURAGI

Page: 1/1

(サイン)

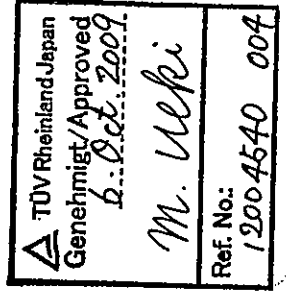
Ref. No.: ZJL-VSZ-12004540 003

Product (製品名) : TERMINAL BLOCK Type designation (型式) : ML-3300 series

Report No.: 12004540 004 License No.: J 50023904

## Methods (Design / Component) Presently Employed (変更前 : 現行)

Plastic Materials Part	Material	Type designation Manufacturer	RTI	Flame ability	Material group
Material of Housing and End Plates	Polyamide, Type 66 Nylon	2015SV, any color UBE INDUSTRIES LTD	RTI:65 °C	V-0	I
Material of Wire Release	Polyphenylene	AN60, any color MITSUBISHI ENGINEERING-PLASTICS	RTI:105 °C	V-0	III
Material of Cover	Polycarbonate	S-2000V MITSUBISHI ENGINEERING-PLASTICS	RTI:80 °C	V-2	III
Material of Marker	Paper			-	-



## Alteration/Modification to be Introduced (変更後)

Plastic Materials Part	Material	Type designation Manufacturer	RTI	Flame ability	Material group
Material of Housing and End Plates	Polyamide, Type 66 Nylon	2015SV, any color UBE INDUSTRIES LTD  Alternate: 2015SE, any color UBE INDUSTRIES LTD	RTI:65 °C	V-0	I
Material of Wire Release	Polyphenylene	FR370, any color ASAHI KASEI CHEMICALS CORP  AN60, any color MITSUBISHI ENGINEERING-PLASTICS	RTI:95 °C	V-0	I
Material of Cover	Polycarbonate	Alternate: LN60, any color MITSUBISHI ENGINEERING-PLASTICS  S-2000V MITSUBISHI ENGINEERING-PLASTICS	RTI:105 °C	V-0	III
Material of Marker	Paper		RTI:65 °C	V-0	I
			RTI:80 °C	V-2	III
				-	-

● 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。