

# Zertifikat

# Certificate



Zertifikat Nr. *Certificate No.*  
R 50142424

Blatt *Page*  
0001

Ihr Zeichen *Client Reference*  
C.C.G

Unser Zeichen *Our Reference*  
01-KSH- 15029899 001

Ausstellungsdatum  
03.02.2009

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

**Genehmigungsinhaber *License Holder***  
Dongguan Sanyou Electrical  
Appliances Co., Ltd.  
Bolan Road, Xitou Industrial Zone  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

**Fertigungsstätte *Manufacturing Plant***  
Dongguan Sanyou Electrical  
Appliances Co., Ltd.  
Bolan Road, Xitou Industrial Zone  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

## Prüfzeichen *Test Mark*

Geprüft nach *Tested acc. to*  
EN 61810-1:2004



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

Lizenzentgelte - Einheit  
*License Fee - Unit*

Relais *(Electromechanical Elementary Relays)*

Type Designation : SRD-x-1yDuv-w-t (SANYOU) 5  
x,y,u,v,w,t = See appendix 1 6

Rated Coil Voltage : DC 3V;5V;6V;9V;12V;15V;18V;24V  
48V and 60V

Rated Coil Power : 0,36W

Ambient Temperature : -40°C to +85°C

Contact Loads : See appendix 1

Electrical Endurance : See appendix 1

Mechanical Endurance : 10 000 000

Type of Interruption : Micro-Disconnection

Insulation System between  
Coil and Contact : Basic Insulation

Endurance test in accordance with clause 17 of IEC 60730-1:  
See appendix 1.

The labelling requirements acc. to EU Directive 2001/95 have  
to be observed for distribution within the EEA.



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ANLAGE *(Appendix)*: 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität  
des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen  
in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich  
betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

This certificate is based on our Testing and Certification Regulation and states the conformity  
of the product with the standards and testing requirements as indicated above. Any additional  
requirements in countries where the product is going to be marketed have to be considered  
additionally. The manufacturing of the certified product is subject to surveillance.

Zertifizierungsstelle

TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Köln  
Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com  
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Dipl.-Ing. F. He

# Zertifikat

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Zertifikat Nr. Certificate No.  
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0002

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Bolan Road, Xitou Industrial Zone  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

**Fertigungsstätte Manufacturing Plant**  
Dongguan Sanyou Electrical  
Appliances Co., Ltd.  
Erhuan Road, Xitou Industrial Zone.  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

Prüfzeichen Test Mark

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Zertifiziertes Produkt (Geräteidentifikation)  
Certified Product (Product Identification)

Lizenzentgelte - Einheit  
License Fee - Unit

Relais (Electromechanical Elementary Relays) ®

as page 0001

Addition

Name of Factory : See above

Address of Factory : See above



ANLAGE (Appendix): 1.

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Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com  
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Dipl.-Ing. F. He

# Zertifikat

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03.02.2009

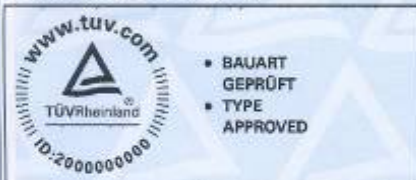
*Date of Issue*  
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Dongguan Sanyou Electrical  
Appliances Co., Ltd.  
Bolan Road, Xitou Industrial Zone  
Houjie Town  
Dongguan City, Guangdong 523952  
P.R. China

**Fertigungsstätte *Manufacturing Plant***  
Mingguang Sanyou Electronics  
Co., Ltd.  
Mingguang Industrial Zone  
Mingguang City, Anhui 239400  
P.R. China

Prüfzeichen *Test Mark*

Geprüft nach *Tested acc. to*  
EN 61810-1:2004



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

Lizenzentgelte - Einheit  
*License Fee - Unit*

Relais (Electromechanical Elementary Relays) <sup>®</sup>

as page 0001

Addition

Name of Factory : See above

Address of Factory : See above



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Dipl.-Ing. F. He

<b>Certificate No.</b> R50142424 0001-0003	<b>Our Reference</b> 01-KSH-15029899 001	<b>Appendix No.</b> 1
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<b>Constructional Data Form (CDF) All-or-Nothing Electromechanical Relays</b> Page 1 of 3
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License holder : Dongguan Sanyou Electrical Appliances Co., Ltd  
 Bolan Road, Xitou Industrial Zone, Houjie Town, Dongguan City, Guangdong 523952, P.R. China

Factory1 : Dongguan Sanyou Electrical Appliances Co., Ltd  
 (full address) Bolan Road, Xitou Industrial Zone, Houjie Town, Dongguan City, Guangdong 523952, P.R. China

Factory2 : Dongguan Sanyou Electrical Appliances Co., Ltd  
 (full address) Erhuan Road, Xitou Industrial Zone, Houjie Town, Dongguan City, Guangdong 523952, P.R. China

Factory3 : Mingguang Sanyou Electronics Co., Ltd  
 (full address) Mingguang Industrial Zone, Mingguang City, Anhui 239400, P.R. China

Type or Model Number: SRD-x-1yDuv-w-t

Kind of device: Electromechanical Elementary Relay

Specification (contact-circuit )			
Contact material	AgSnO <sub>2</sub> or AgCdO		
Contact configuration	Make; break; change-over		Make
Rated contact voltage	250VAC	28VDC	250VAC
Rated contact current	7A	7A	10A
cos φ	1	--	1
L/R	--	0	--
Frequency (Hz)	50/60	--	50/60
Schematics for contact loading <small>*according to Tab 13 of EN 61810-1: 2004</small>	Single-pole: a; b; o		Single-pole: a
Kind of contacts			
Number of cycles for electrical endurance / Frequency of operation	100,000 1200Cycles/h		30,000 1200Cycles/h
Number of cycles for mechanical endurance / Frequency of operation	10,000,000 18,000 Cycles/h		
Duty factor	50%		
Type of interruption	Micro-disconnection		
Insulation resistance	≥1,000M Ω (500VDC)		

**TÜV Rheinland Group**

09.12.2008	Kenny Shi	
<b>Date</b>	<b>Name</b>	<b>Signature</b>

**Certificate No.** R50142424 0001-0003    **Our Reference** 01-KSH-15029899 001    **Appendix No.** 1

**Constructional Data Form (CDF) All-or-Nothing Electromechanical Relays**    Page 2 of 3

* Endurance according to IEC 60730-1 (ratings, number of cycles, frequency of operation)	Above Electrical ratings ( <b>1a:10A, 250VAC, 30,000 cycles, 1a,1b,1c: 7A, 250VAC, 100,000 cycles</b> ) are also tested in accordance with clause 17- endurance of IEC 60730-1:1999
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Specification (coil-circuit)										
Rated coil voltage (Rated coil voltage) <input checked="" type="checkbox"/> DC <input type="checkbox"/> AC	03	05	06	09	12	15	18	24	48	60
Coil resistance (at 20°C) (Ω) ± 10%	25	70	100	225	400	625	900	1,600	6,400	10,000
Frequency for AC (Hz)	---									
Rated power	0.36w									
Operative range	<input type="checkbox"/> class 1: 80% to 110% of rated coil voltage <input type="checkbox"/> class 2: 85% to 110% of rated coil voltage <input checked="" type="checkbox"/> other: 75% to 130% of rated coil voltage									
Thermal insulation class	F									

Specification (general)																	
Overvoltage category	II																
Pollution degree	2																
Test voltages	<i>coil-contact</i> : 1,500VAC(50/60Hz) for 1 min <i>contact - contact</i> : --- <i>across open contact</i> : 750VAC(50/60Hz) for 1 min <i>live parts - outside</i> : ---																
Minimum creepage distances	<i>coil-contact</i> : 3,1 mm <i>contact - contact</i> : --- <i>across open contact</i> : 3,0mm <i>live parts - outside</i> : ---																
Minimum clearances	<i>coil-contact</i> : 2,5mm <i>contact - contact</i> : --- <i>across open contact</i> : 0,3mm <i>live parts - outside</i> : ---																
Insulation:  <small>U<sub>i</sub> = 250V, OV-cat. II            Material gr. IIIa, Poll. deg. 2</small>	<table style="width:100%; border: none;"> <tr> <td style="padding: 2px;"><i>coil-contact</i> :</td> <td style="padding: 2px;"><input checked="" type="checkbox"/> basic</td> <td style="padding: 2px;"><input type="checkbox"/> reinforced</td> <td style="padding: 2px;"><input type="checkbox"/> NA</td> </tr> <tr> <td style="padding: 2px;"><i>contact - contact</i> :</td> <td style="padding: 2px;"><input type="checkbox"/> basic</td> <td style="padding: 2px;"><input type="checkbox"/> reinforced</td> <td style="padding: 2px;"><input checked="" type="checkbox"/> NA</td> </tr> <tr> <td style="padding: 2px;"><i>across open contact</i> :</td> <td style="padding: 2px;"><input checked="" type="checkbox"/> micro</td> <td style="padding: 2px;"><input type="checkbox"/> full</td> <td style="padding: 2px;"><input type="checkbox"/> NA</td> </tr> <tr> <td style="padding: 2px;"><i>live parts - outside</i> :</td> <td style="padding: 2px;"><input type="checkbox"/> basic</td> <td style="padding: 2px;"><input type="checkbox"/> reinforced</td> <td style="padding: 2px;"><input checked="" type="checkbox"/> NA</td> </tr> </table>	<i>coil-contact</i> :	<input checked="" type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input type="checkbox"/> NA	<i>contact - contact</i> :	<input type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input checked="" type="checkbox"/> NA	<i>across open contact</i> :	<input checked="" type="checkbox"/> micro	<input type="checkbox"/> full	<input type="checkbox"/> NA	<i>live parts - outside</i> :	<input type="checkbox"/> basic	<input type="checkbox"/> reinforced	<input checked="" type="checkbox"/> NA
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Kenny Shi

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**Constructional Data Form (CDF) All-or-Nothing Electromechanical Relays** Page 3 of 3

Ambient temperature	-40°C ~ +85°C
Minimum mounting distance	H: 3 mm      V: 3 mm
Relay technology category	<input type="checkbox"/> RT 0 <input type="checkbox"/> RT I <input checked="" type="checkbox"/> RT II <input type="checkbox"/> RT III <input type="checkbox"/> RT IV <input type="checkbox"/> RT V

**Terminals**

Terminal designation	N/A
Type of terminals	<input type="checkbox"/> Screw terminals and screwless terminals <input type="checkbox"/> Flat quick-connect terminations <input checked="" type="checkbox"/> Solder terminals PCB solder pin Maximum permissible steady-state temperature indicated by manufacturer: 160°C <input type="checkbox"/> Sockets <input type="checkbox"/> Alternative termination types
Material/plating of the terminal	62% copper
Required preparation of the conductor	1

**Plastic Parts**

Part	Material name	Type designation	RTI (minimum)	Material Group
Cover	PBT	3316	140	IIIa
Bobbin	PBT	3316	140	IIIa

**Type Nomenclature:**

SRD-x-1yDuv-w-t

Basic designation: SRD

x stands for sealed type: S means standard sealed type, SH means sealed type washable.

1 stands for number of poles: 1 pole.

y stands for rated coil voltage(VDC): 03;05;06;09;12;15;18;24;48 or 60.

D stands for rated coil power: D means 0.36w.

u stands for contact form: M means make contact; B means break contact; blank means change-over contact.

 v stands for contact material: blank means AgSnO<sub>2</sub>; 1 means AgCdO.

w stands for insulation (system) class: F means class F; B means class B; blank means general type.

t means special parameter: blank means standard type; letter or number means special requirement which don't affect constructions.

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