

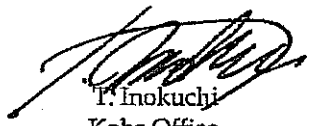
Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the LR Type Approval System.

This certificate is issued to:

PRODUCER	IDEC CORPORATION 7-31, Nishimiyahara, Yodogawa-ku, Osaka, 532-8550, Japan
PLACE OF PRODUCTION	IDEC CORPORATION TAKINO PLANT 355-18, Aza-Kuroishi, Oaza-Kohtaka, Takino-cho, Kato-gun, Hyogo-ken, 679-0221, Japan
	IDEC IZUMI TAIWAN CORPORATION No.87, Swi KUAN Road, Chu Hou Village, Jen Wu Country, Kaohsiung, Hsien 814 Taiwan
	IDEC IZUMI SUZHOU Co., Ltd. 5 Huoju Road, Suzhou New District, Suzhou Jiangsu 215009 China
DESCRIPTION	Magnetic Relay and Relay Socket

Certificate No.	07/10021
Issue Date	19 April 2007
Expiry Date	18 April 2012
Sheet	1 of 9


T. Inokuchi
Kobe Office
Lloyd's Register Asia

*Lloyd's Register Asia, registered office:
71 Fenchurch Street, London EC3M 4BS*

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TYPE

RH Series, Comprising:-

RH 2 B - U L W E DC6
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① Series
RH : RH Series
- ② Number of Poles
2 : 2 Poles 4 : 4 Poles
- ③ Terminal type
B : Blade type, mounted through adapter or solder connection
V2: Printed wiring board type
- ④ Approval Standards
U: UL, CSA, TUV Recognition
Blank : Without UL, CSA, TUV Recognition
- ⑤ Additional Functions
Blank : Without additional function
C : With a button to check working
CD : With a button to check working & with a diode against surge voltage of DC coil
D : With a diode against surge voltage of DC coil
L : With indicator light
LC : With indicator light & with a button to check working
LD : With indicator light & with a diode against surge voltage of DC coil
LCD : With indicator light, with a button to check working & with a diode against surge voltage of DC coil
T : With top flange
TD : With top flange & with a diode against surge voltage of DC coil
- ⑥ Contact Material
Blank : Silver Cadmium oxide (AgCdO)
W : Silver tin oxide indium oxide (Ag-SnO-InO)
- ⑦ Color of enclosure
E : Color less, transparent
Blank : Yellow, transparent

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Type (Continued)

RH Series (Continued)

Ⓑ Operating Coil Voltages
For RH2

DC6 : DC 6 V DC12 : DC 12 V
 DC24 : DC 24 V DC48 : DC 48 V
 DC100-110 : DC 100-110 V
 AC6 : AC 6V AC12 : AC 12 V
 AC24 : AC 24V AC48 : AC 48V
 AC50 : AC 50V
 AC100-110 : AC 100-110V
 AC110-120 : AC 110-120V
 AC200-220 : AC 200-220V
 AC 220-240 : AC 220-240V

For RH4

DC6 : DC 6 V DC12 : DC 12 V
 DC24 : DC 24 V DC48 : DC 48 V
 DC100 : DC 100V DC110 : DC 110 V
 AC6 : AC 6V AC12 : AC 12 V
 AC24 : AC 24V AC48 : AC 48V
 AC50 : AC 50V AC100 : AC 100V
 AC110 : AC 110V AC115 : AC 115V
 AC120 : AC 120V AC200 : AC 200V
 AC220 : AC 220V AC230 : AC 230V
 AC240 : AC 240V

Socket : SH Series

For RH2B relay Surface Mount Type

SH2B-05A SH2B-05B SH2B-05C
 SH2B-05D SH2B-05U

For RH2B relay Panel Mount Type

SH2B-51

For RH2B relay PC Board Mount Type

SH2B-62

For RH4B relay Surface Mount Type

SH4B-05A SH4B-05B SH4B-05C
 SH4B-05U

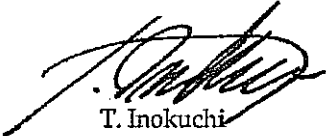
For RH4B relay Panel Mount Type

SH4B-51

For RH4B relay PC Board Mount Type

SH4B-62

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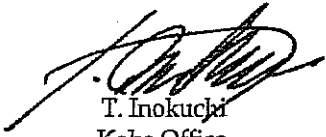
Type (Continued)

RJ Series, Comprising:-

RJ 1 S - C L - D5
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
RJ : RJ Series
- ② Number of Poles
1 : 1 Pole 2 : 2 Poles
- ③ Terminal type
S : Soldering and Plug-in type
V : Printed wiring board type
- ④ Contact Arrangement
C : Form C A : Form A
- ⑤ Additional Functions
Blank : Without additional function
D : With a diode against surge voltage of DC coil (normal polarity)
D1 : With a diode against surge voltage of DC coil (reverse polarity)
L : With indicator light
LD : With indicator light & with a diode against surge voltage of DC coil (normal polarity)
LD1 : With indicator light & with a diode against surge voltage of DC coil (reverse polarity)
LR : With indicator light & with CR circuit against surge voltage of AC coil
R : With CR Circuit against surge voltage of AC coil
- ⑥ Contact Capacity
Blank : Standard type
H : High contact capacity type
- ⑦ Operating Coil Voltages
D5 : DC 5 V D6 : DC 6 V
D12 : DC 12 V D24 : DC 24 V
D48 : DC 48 V D100 : DC 100-110 V
A12 : AC 12 V A24 : AC 24V
A100 : AC 100V-(110)V60Hz
A110 : AC 110V A115 : AC 115V
A120 : AC 120V A200 : AC 200V-(220)V60Hz
A220 : AC 220V A230 : AC 230V
A240 : AC 240V

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Type (Continued)

RJ Series (Continued)

Socket : SJ Series

For RJ1S relay Surface Mount Type

SJ1S-05B SJ1S-07L

For RJ1S relay PC Board Mount Type

SJ1S-61 SJ1S-61G

For RJ2S relay Surface Mount Type

SJ2S-05B SJ2S-07L

For RJ2S relay PC Board Mount Type

SJ2S-61 SJ2S-61G

RU Series, Comprising:-

RU 2 S - C D E - D6
 ① ② ③ ④ ⑤ ⑥ ⑦

① Series

RU: RU Series

② Number of Poles

2: 2 Poles 4: 4 Poles

42: 4 Poles with Twin Contact

③ Terminal type

S: Soldering & Plug-in type

V: Printed wiring board type

④ Structure

Blank: Enclosure with latching lever & mechanical indicator

C: Enclosure without latching lever & with mechanical indicator

M: Enclosure without momentary lever & mechanical indicator

N: Enclosure without latching lever & mechanical indicator

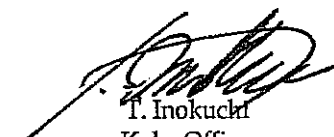
T: Top flange enclosure

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Type (Continued)

RU Series (Continued)

⑤ Additional Functions

- Blank : With bipolar indicator light
- D : With indicator light & with a diode against surge voltage of DC coil (normal polarity)
- D1 : With indicator light & with a diode against surge voltage of DC coil (reverse polarity)
- F : Without indicator light
- FD : Without indicator light & with a diode against surge voltage of DC coil (normal polarity)
- FD1 : Without indicator light & with a diode against surge voltage of DC coil (reverse polarity)
- FR : Without indicator light & with CR circuit against surge voltage of AC coils
- R : With indicator light & with CR circuit against surge voltage of AC coils

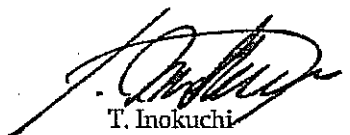
⑥ Color of enclosure

- E : Colorless, transparent
- Blank : Yellow, transparent

⑦ Operating Coil Voltages

- | | |
|--------------------|---------------------|
| D6 : DC 6 V | D9 : DC 9 V |
| D12 : DC 12 V | D24 : DC 24 V |
| D48 : DC 48 V | D100 : DC 100V |
| D110 : DC 110 V | D125 : DC 125 V |
| D220 : DC 220 V | |
| A6 : AC 6V | A12 : AC 12 V |
| A24 : AC 24V | A48 : AC 48V |
| A50 : AC 50V | A100 : AC 100-110V |
| A110 : AC 110-120V | A200 : AC 200V-220V |
| A220 : AC 220-240V | |

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Type (Continued)

RU Series (Continued)

Socket : SJ Series

For RU2S relay Surface Mount Type

SM2S-05A SM2S-05B SM2S-05C
SM2S-05D SM2S-05U SM2S-05DF
SM2S-05DN SU2S-11L

For RU2S relay Panel Mount Type

SM2S-51

For RU2S relay PC Board Mount Type

SM2S-61 SM2S-62

For RU4S & RU42S relay Surface Mount Type

SY4S-05A SY4S-05B SY4S-05C
SY4S-05D SY4S-05U SY4S-05DF
SY4S-05DN SU4S-11L

For RU4S & RU42S relay Panel Mount Type

SY4S-51

For RU4S & RU42S relay PC Board Mount Type

SY4S-61 SY4S-62

APPLICATION

Marine, offshore and industrial application for use in environmental categories ENV1, ENV2 and ENV3 as defined in LR Type Approval System Test Specification No. 1-2002 where the Test Specification is satisfactory for the intended operation.

ADDITIONAL TEST

Low temperature test at -40°C

DESIGN CODE

Manufacturer's Specification Nos.
EP-1053-1, EP-1061-0, EP1090-0 and EP-1152-0

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RATINGS

Contact Rating : RH Series

No. of Pole(s)	Continuous Current	Allowable Contact Power		Rated Load		
		Resistive Load	Inductive Load	Voltage (V)	Res. Load	Ind. Load
2, 4	10A	1650VA AC 300W DC	1100VA AC 225W DC	110 AC	10A	7.5A
				220 AC	7.5A	5A
				30 DC	10A	7.5A


Contact Rating : RJ Series

No. of Poles	Contact	Allowable Contact Power		Rated Load			Allowable Switching Current	Allowable Switching Voltage	Minimum Applicable Load*
		Resistive Load	Inductive Load	Voltage (V)	Res. Load	Ind. Load			
1	NO	3000VA AC	1875VA AC	250V AC	12A	7.5A	12A	250V AC	5V DC, 100mA**
		360W DC	180W DC	30V DC	12A	6A			
	NC	3000VA AC	1875VA AC	250V AC	12A	7.5A			
		180W DC	90W DC	30V DC	6A	3A			
2	NO	2000VA AC	1000VA AC	250V AC	8A	4A	8A	250V AC	5V DC, 10mA**
		240W DC	120W DC	30V DC	8A	4A			
	NC	2000VA AC	1000VA AC	250V AC	8A	4A			
		120W DC	60W DC	30V DC	4A	2A			
1 High Capacity Type	NO	4000VA AC	2000VA AC	250V AC	16A	8A	16A	250V AC	5V DC, 100mA**
		480W DC	240W DC	30V DC	16A	8A			
	NC	4000VA AC	2000VA AC	250V AC	16A	8A			
		240W DC	120W DC	30V DC	8A	4A			

Note * : Measured at operating frequency of 120 operations per minute (failure rate level P, reference value)

Note ** : Reference value

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RATINGS (Continued)

Contact Rating : RU Series

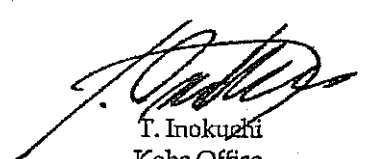
No. of Pole(s)	Continuous Current	Allowable Contact Power		Rated Load		
		Resistive Load	Inductive Load	Voltage (V)	Res. Load	Ind. Load
2	10A	2500VA AC	1250VA AC	250 AC	10A	5A
		300W DC	150W DC	30 DC	10A	5A
4	6A	1500VA AC	600VA AC	250 AC	6A	2.6A
		180W DC	90W DC	30 DC	6A	2.7A
4 ² ***	3A	750VA AC	200VA AC	250 AC	3A	0.8A
		90W DC	45W DC	30 DC	3A	1.5A

Note *** : with twin Contact

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Asia of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No.07/10021 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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