



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 Lloyd's Register Type Approval System.

| | |
|----------------------------|--|
| Manufacturer | IDEC Corporation |
| Address | 2-6-64, Nishimiyahara, Osaka-shi, 532-0004, Japan |
| Place of Production | IDEC CORPORATION TAKINO PLANT 355-18, Aza-Kuroishi, Kotaka, Kato-shi, Hyogo, 679-0221, Japan |
| Place of Production | IDEC IZUMI TAIWAN CORP HO FA MFG FACTORY No.85, Heye 3rd RD., Daliao Dist, Kaohsiung, 831, Taiwan |
| Place of Production | IDEC ASIA (THAILAND) Co., Ltd. 62 Moo. 4 Tambon Bualoy, Amphur Nongkhae, Saraburi Province, 18230, Thailand |
| Place of Production | IDEC IZUMI SUZHOU CO.,LTD 165 Jinfeng Road, Suzhou New District, Suzhou City, 215011, China |
| Type | Relays - Magnetic |
| Description | Magnetic Relay and Relay Socket |
| Trade Name | RH/RU/RJ Series Relay SH/SJ/SY/SM/SU Series Socket (See Appendix for more details) |

Sachie Fujii

Senior Surveyor to Lloyd's Register Group Ltd
A member of the Lloyd's Register group



Type Approval Certificate

| | |
|--------------------|--|
| Application | Marine and offshore application for use in environmental categories ENV1, ENV2 and ENV3 as defined in LR Type Approval System Test Specification No. 1-2021 where the Test Specification is satisfactory for the intended operation. |
| Ratings | See Appendix |

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 Group Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR22310240TA

The Design Appraisal Document LR22310240TA-02 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Appendix

TRADE NAME

RH Series, Comprising:-

RH 2 B - U L W E DC6

① ②③ 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

⑧ 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

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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

RJ Series, Comprising;-

RJ 1 _ S - C L _ - D5

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series

RJ : RJ Series

② Number of Poles

1 : 1 Pole 2 : 2 Poles

③ Contact Type

Blank : Standard type

2 : Bifurcated Type

④ Terminal type

S : Soldering and Plug-in type

V : Printed wiring board type

⑤ Contact Arrangement

C : Form C A : Form A

⑥ 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

⑦ Contact Capacity

Blank : Standard type

H: High contact capacity type

⑧ 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 | | |

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 and RJ22S relay Surface Mount Type

SJ2S-05B SJ2S-07L

For RJ2S and RJ22S 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 with momentary lever & mechanical indicator

N: Enclosure without latching lever & mechanical indicator

T: Top flange enclosure

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 | | | |

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



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 360W DC | 1875VA AC 180W DC | 250V AC | 12A | 7.5A | 12A | 250V AC 125V DC | 5V DC, 100mA ** |
| | | | | 30V DC | 12A | 6A | | | |
| | NC | 3000VA AC 180W DC | 1875VA AC 90W DC | 250V AC | 12A | 7.5A | | | |
| | | | | 30V DC | 6A | 3A | | | |
| 2 | NO | 2000VA AC 240W DC | 1000VA AC 120W DC | 250V AC | 8A | 4A | 8A | 250V AC 125V DC | 5V DC, 10mA** |
| | | | | 30V DC | 8A | 4A | | | |
| | NC | 2000VA AC 120W DC | 1000VA AC 60W DC | 250V AC | 8A | 4A | | | |
| | | | | 30V DC | 4A | 2A | | | |
| 1 High Capacity Type | NO | 4000VA AC 480W DC | 2000VA AC 240W DC | 250V AC | 16A | 8A | 16A | 250V AC 125V DC | 5V DC, 100mA ** |
| | | | | 30V DC | 16A | 8A | | | |
| | NC | 4000VA AC 240W DC | 2000VA AC 120W DC | 250V AC | 16A | 8A | | | |
| | | | | 30V DC | 8A | 4A | | | |
| 2 Bifurcated Type | NO | 250VA AC 30W DC | 100VA AC 15W DC | 250V AC | 1A | 0.4A | 1A | 250V AC 125V DC | 1V DC, 100µA ** |
| | | | | 30V DC | 1A | 0.5A | | | |
| | NC | 250VA AC 30W DC | 100VA AC 15W DC | 250V AC | 1A | 0.4A | | | |
| | | | | 30V DC | 1A | 0.5A | | | |

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

Note **: Reference value

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 300W DC | 1250VA AC 150W DC | 250 AC | 10A | 5A |
| | | | | 30 DC | 10A | 5A |
| 4 | 6A | 1500VA AC 180W DC | 600VA AC 90W DC | 250 AC | 6A | 2.6A |
| | | | | 30 DC | 6A | 2.7A |
| 42*** | 3A | 750VA AC 90W DC | 200VA AC 45W DC | 250 AC | 3A | 0.8A |
| | | | | 30 DC | 3A | 1.5A |

Note *** : with twin Contact

-End of Appendix-

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