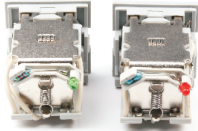


Selection manual of industrial control relay

**RUB**  
General Purpose Relay

- ◆ 2 poles, 3 poles contact load 10A
- ◆ With non-polarity LED integrated in relay
- ◆ With lockable test button and inspection window
- ◆ Identification of coils through test button color (AC red/DC blue)
- ◆ Conformity with RoHS Directive



**LED**

Visible LED indicates the working status of the relay at any time, AC red, DC green

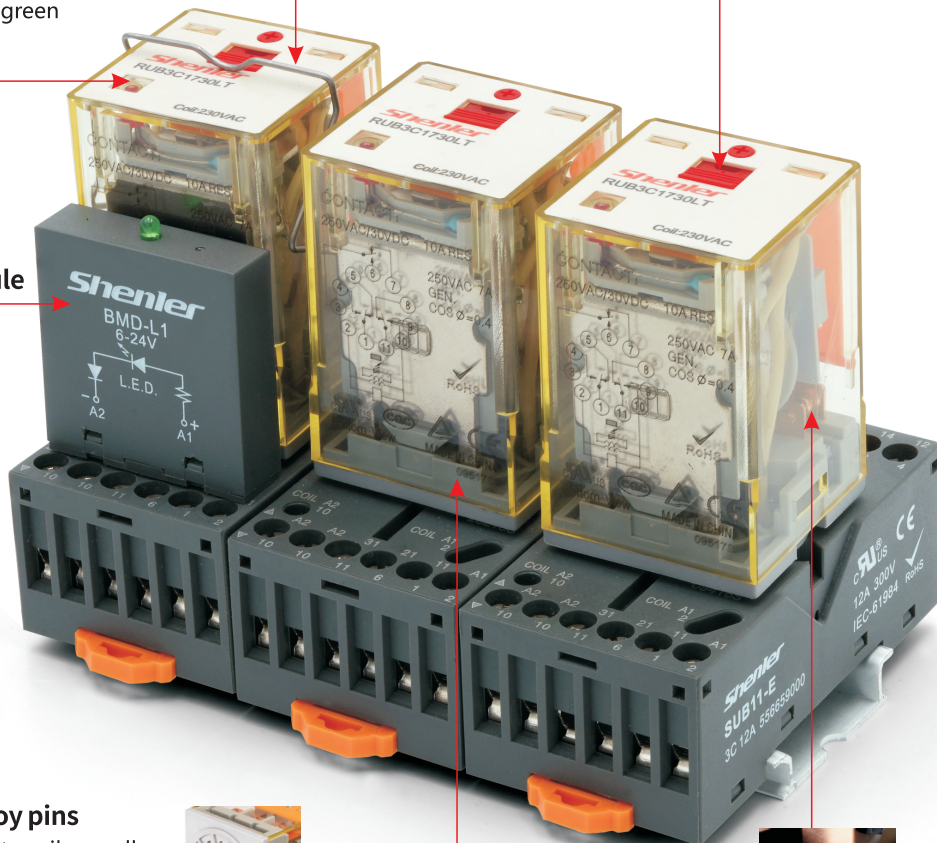
**Metal clip**

The relay is firmly attached to the socket by Metal clip.

**Test button**

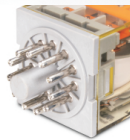
On-site test is available with test button.

**BMD module**



**Silver alloy pins**

High-quality silver alloy pins, strong contact, instantaneous conductivity and stable performance.



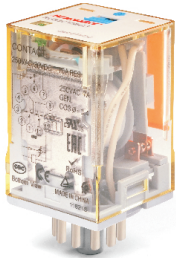
**Silver alloy contacts**

It can carry more current, with stronger conductivity and more sensitive response, and greatly extend electrical life, and works more stable.



# RUB

General Purpose Relay



Relay

+



Socket

=



Relay module

RUB □ □ □ □

**Other options**

LT: LED + test button

LTD: LED + test button + diode

RUB2C1 (2-,7+); RUB2C2 (1-,8+); RUB3C1 (2-,10+);

RUB3C5 (2-10+); RUB3C2 (1-,11+)

LTD1: LED + Test button + diode

RUB2C1 (2+,7-); RUB2C2 (1+,8-); RUB3C1 (2+,10-);

RUB3C5 (2+,10-); RUB3C2 (1+,11-)

**Coil voltage code**

Code	006	012	024	048	110	220	
Voltage (V DC)	6	12	24	48	110	220	
Code	506	512	524	536	548	615	730
Voltage (V AC)	6	12	24	36	48	115	230

**Wiring type**

1: 1

2: 2-1

5: 5-1 (3C only)

**Contact form**

2C: 2C0

3C: 3C0

**Series name**

## Characteristics

Configuration	2C,3C	
Rated current / Rated voltage	10A/250VAC 30VDC (resistive RES); 7A/250VAC 30VDC (inductive GEN)	
Contact	Max. switching capacity (resistive)	2500VA, 300W
	Initial contact resistance	≤50mΩ
	Material	Ag alloy
	Electrical durability	≥10 <sup>5</sup> Cycles(1800 Ops/h)
	Mechanical durability	≥2000 x 10 <sup>4</sup> Cycles (18000 Ops/h)
	Pick-up voltage (23°C) (Rated voltage)	≤80%
Drop-out voltage (23°C) (Rated voltage)	DC:≥10%, AC:≥30% 50/60Hz	
Maximum voltage (23°C) (Rated voltage)	110%	
Insulation resistance	≥100MΩ (500VDC)	
Coil operating power	DC(W)	approx. 1.5
	AC(VA)	approx. 2.7(60Hz)
Operate time	≤30ms	
Release time (at nominal voltage)	≤20ms	
Initial breakdown voltage	Between open contacts	1000VAC/1min (leakage current 1mA)
	Between poles	2500VAC/1min (leakage current 1mA)
	Between contacts and coil	2500VAC/1min (leakage current 1mA)
Insulation characteristics	Rated voltage	250VAC
	Pollution level	3
IEC 60664 UL840	Overvoltage level	III
Impulse withstand voltage (waveform: 1.2/50μs)	4000V(Altitude 2000m)	
Protection level	IP20	
Storage temperature/ humidity	-55~+85°C/ ≤85%RH (18 months)	
Working temperature/ humidity	-10~+55°C/ 5%~85%RH (No condensation)	

Air pressure	86~106KPa
Shock resistance	10G (half-sine shock pulse: 11ms)
Vibration resistance	10~55Hz double-amplitude:1.5mm
Mounting	plug in
Unit weight	approx. 85g

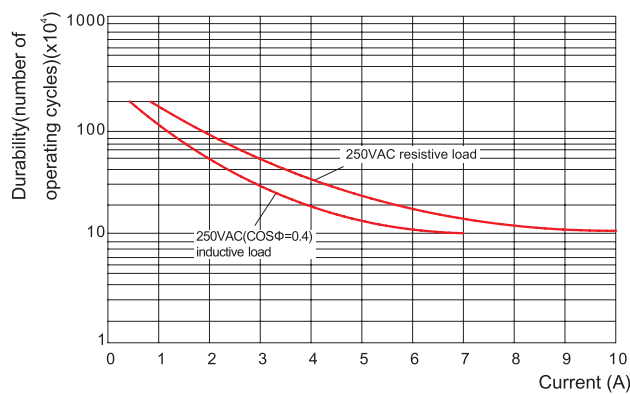
**Coil Specifications (23°C)**

Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance $\Omega$	23.7	96	430	1640	7360	29500	
Nominal voltage V.AC	6	12	24	36	48	115	230
Coil resistance $\Omega$	3.9	17	62.5	144	305	1250	5900

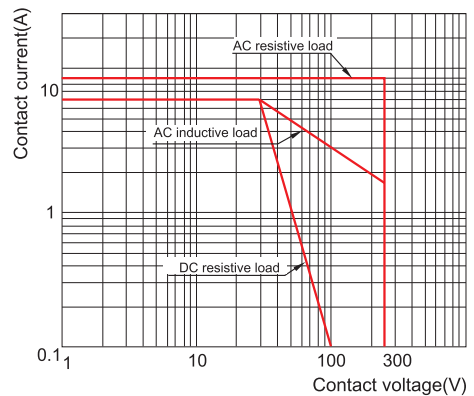
Coil resistance: under coil voltage 110V are measured with tolerance of  $\pm 10\% \Omega$ , above 110V with tolerance of  $\pm 15\% \Omega$ .

**Contact Specification**

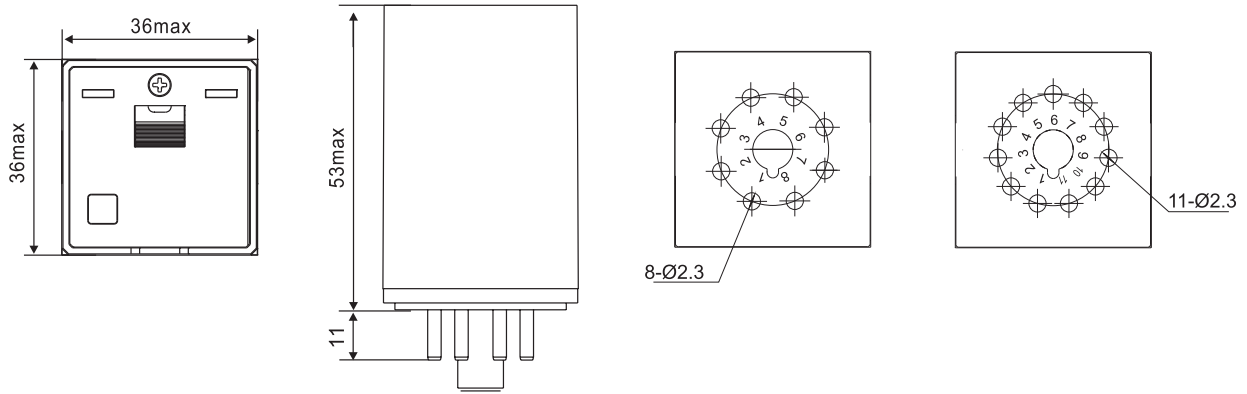
**RUB2C/3C** Electrical durability contacts



Maximum switching capacity

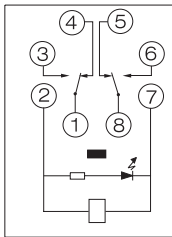


**Dimensions (mm)**



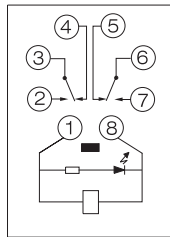
**Wiring Diagrams**

**RUB2C1**



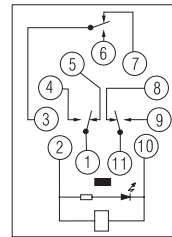
- ⑦ ② : A1, A2
- ① ⑧ : COM
- ③ ⑥ : NO
- ④ ⑤ : NC

**RUB2C2**



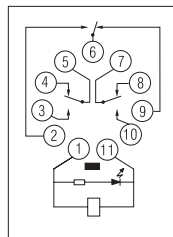
- ⑧ ① : A1, A2
- ③ ⑥ : COM
- ② ⑦ : NO
- ④ ⑤ : NC

**RUB3C1**



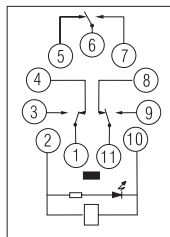
- ⑩ ② : A1, A2
- ① ③ ⑪ : COM
- ④ ⑥ ⑨ : NO
- ⑤ ⑦ ⑧ : NC

**RUB3C2**



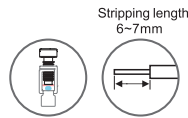
- ⑪ ① : A1, A2
- ⑤ ⑥ ⑦ : COM
- ② ③ ⑩ : NO
- ④ ⑧ ⑨ : NC

**RUB3C5**



- ⑩ ② : A1, A2
- ① ⑥ ⑪ : COM
- ③ ⑦ ⑨ : NO
- ④ ⑤ ⑧ : NC

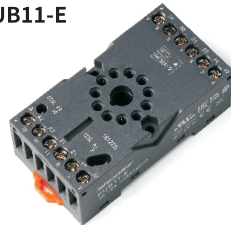
## Characteristics



SUB08-E






SUB11-E

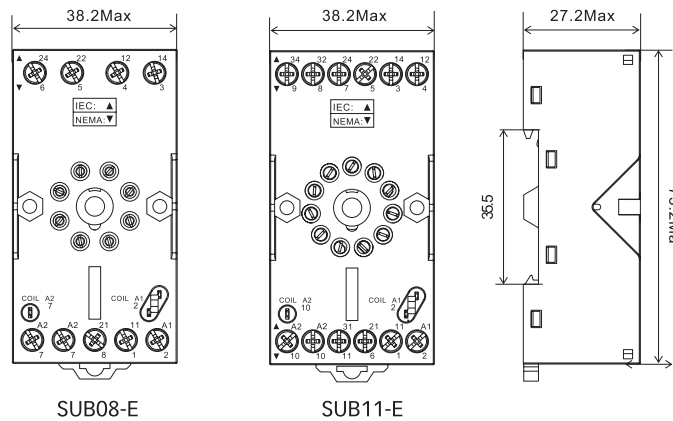


Type		SUB08-E	SUB11-E
Nominal load	Current	A	12
	Voltage	V	300
Dielectric strength	Between coil and contact	V/min	4000
	Between contacts	V/min	2500
Max. tightening torque	Nm	1.0	
Wire size	AWG/mm <sup>2</sup>	20-14/0.5-2.5	
Ambient temperature	°C	-40~+85	
Unit weight	g	50	55

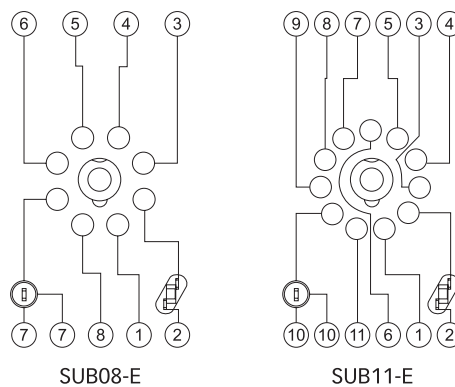
### Accessories

Socket	Metal clip	ID tag	Module
SUB08-E	 SU60M	 SU3P	 BMD
SUB11-E			

## Dimensions (mm)



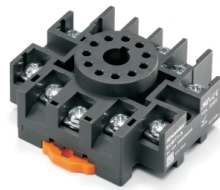
## Connection Diagrams



## Characteristics

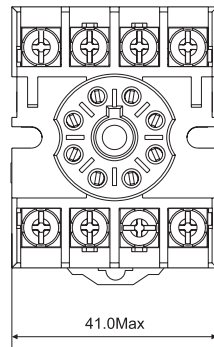


SUB08-A

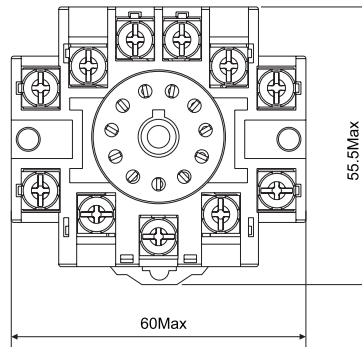


Type		SUB08-A	SUB11-A
Nominal load	Current	A	12
	Voltage	V	300
Dielectric strength	V/min	2500	
Max. tightening torque	Nm	1.0	
Wire size	AWG/mm <sup>2</sup>	20-14/0.5-2.5	
Ambient temperature	°C	-40~+85	
Unit weight	g	37	50

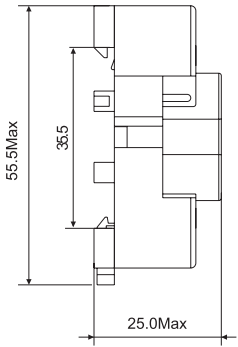
## Dimensions (mm)



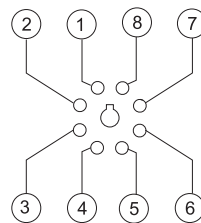
SUB08-A



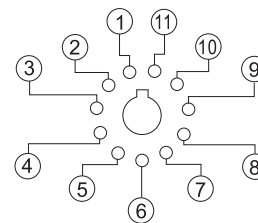
SUB11-A



## Connection Diagrams



SUB08-A



SUB11-A