

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



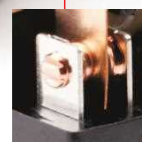
Silver alloy pins

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.





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: 2CO

3C: 3CO

Series name

Characteristics

Contact	Configuration	2C,3C
	Rated current / Rated voltage	10A/250VAC 30VDC (resistive RES); 7A/250VAC 30VDC (inductive GEN)
	Max. switching capacity (resistive)	2500VA, 300W
	Initial contact resistance	≤50mΩ
	Material	Ag alloy
	Electrical durability	≥10 ⁵ Cycles(1800 Ops/h)
	Mechanical durability	≥2000 x 10 ⁴ 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)

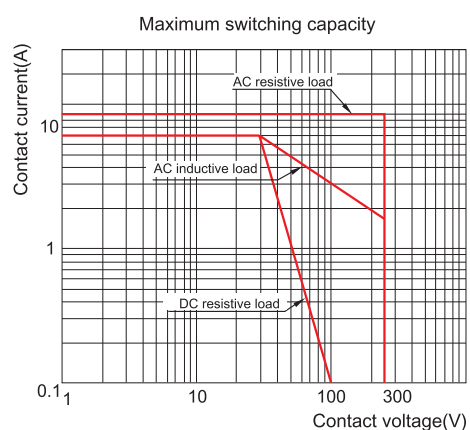
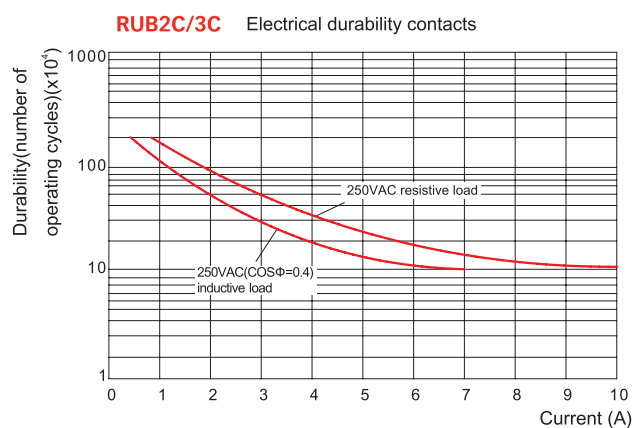
Air pressure	86~106KPa
Shock resistance	10G (half-sine shock pulse: 11ms)
Vibration resistance	10~55Hz double-amplitude: 1.5mm
Mounting	plug in
Unit weight	approx. 85g

Coil Specifications (23°C)

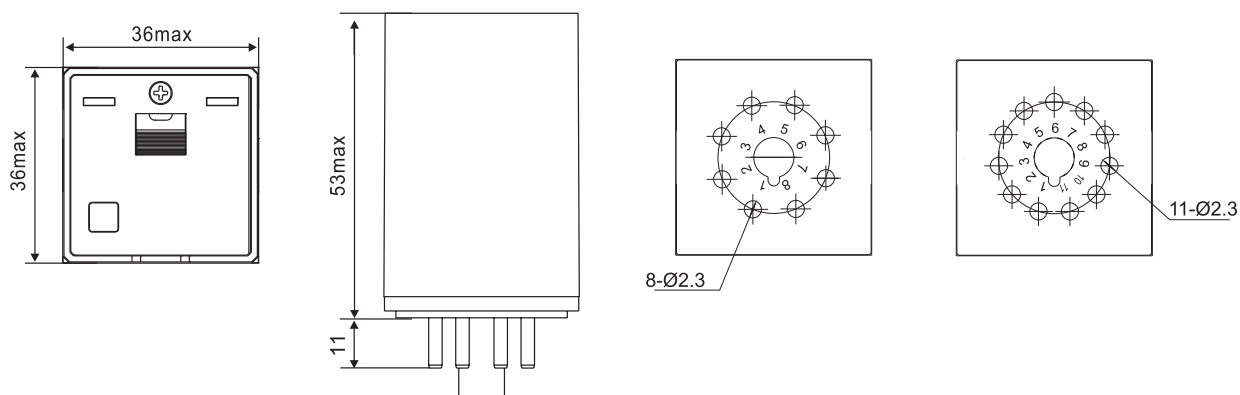
Nominal voltage V.DC	6	12	24	48	110	220	
Coil resistance Ω	23.7	96	430	1640	7360	29500	
Nominal voltage V.AC	6	12	24	36	48	115	230
Coil resistance Ω	3.9	17	62.5	144	305	1250	5900

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

Contact Specification

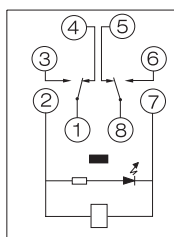


Dimensions (mm)



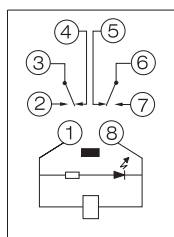
Wiring Diagrams

RUB2C1



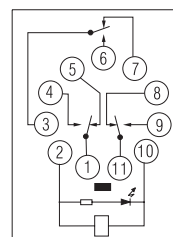
⑦ ② : A1, A2
① ⑧ : COM
③ ⑥ : NO
④ ⑤ : NC

RUB2C2



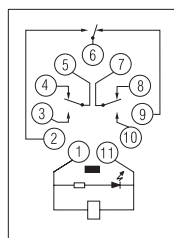
⑧ ① : A1, A2
③ ⑥ : COM
② ⑦ : NO
④ ⑤ : NC

RUB3C1



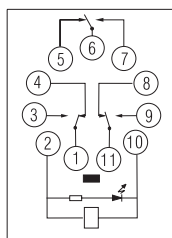
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① ③ ⑪ : COM
④ ⑥ ⑨ : NO
⑤ ⑦ ⑧ : NC

RUB3C2



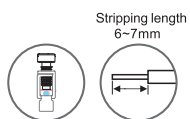
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⑤ ⑥ ⑦ : COM
② ③ ⑩ : NO
④ ⑧ ⑨ : NC

RUB3C5



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

Characteristics



SUB08-E



SUB11-E

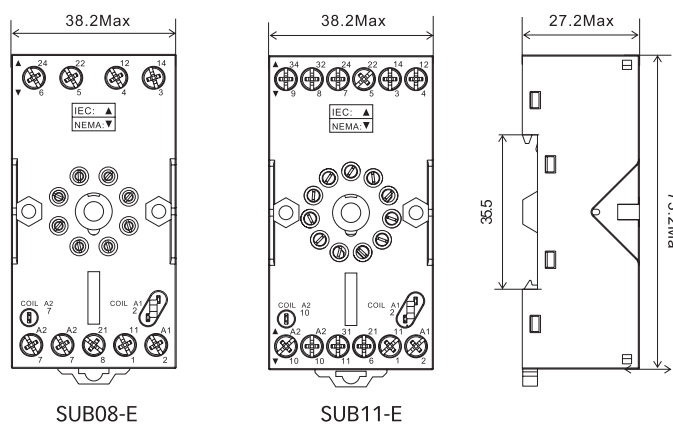


Type			SUB08-E	SUB11-E
Nominal load	Current	A	12	
	Voltage	V	300	
Dielectric strength	Between coil and contact	V/min	4000	
	Between contacts	V/min	2500	
Max. tightening torque		Nm	1.0	
Wire size		AWG/mm ²	20-14/0.5-2.5	
Ambient temperature		°C	-40~+85	
Unit weight		g	50	55

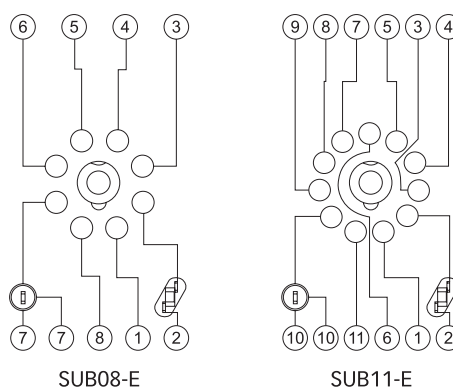
Accessories

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

Dimensions (mm)



Connection Diagrams



Characteristics

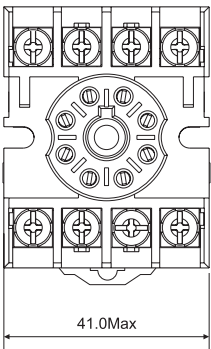


SUB08-A

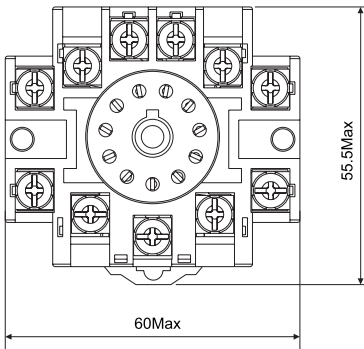


Type			SUB08-A	SUB11-A
Nominal load	Current	A	12	10
	Voltage	V	300	
Dielectric strength		V/min	2500	
Max. tightening torque		Nm	1.0	
Wire size		AWG/mm ²	20-14/0.5-2.5	
Ambient temperature		°C	-40~+85	
Unit weight		g	37	50

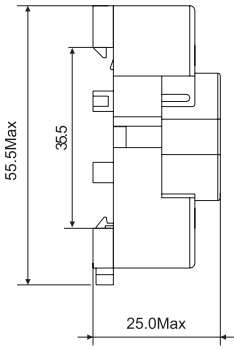
Dimensions (mm)



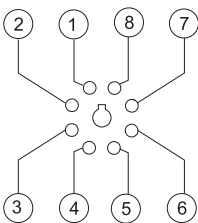
SUB08-A



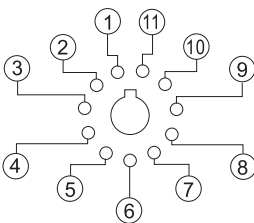
SUB11-A



Connection Diagrams



SUB08-A



SUB11-A