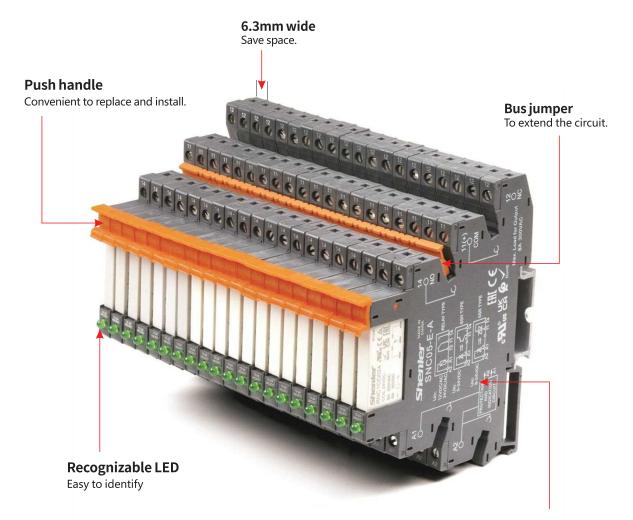
Selection manual of industrial control relay

RNC

Interface Relay Module

- Ultra-slim, high sensitivity and low consumption, the maximum load power 6A.
- Reasonable structure, meets environmental protection requirements, the control voltage range can be extended with matching sockets.
- Shenler industrial relays are widely used in the output signal and safety drive of PLC, CNC system, robot, intelligent manufacturing and other control systems. It is the best choice to realize remote control, production and processing, packaging, transportation, testing, storage and other equipment and automatic assembly lines.



Circuit protection design Bridge rectifier circuit, built-in

surge absorber for AC and DC, in avoid of overvoltage.















Relay



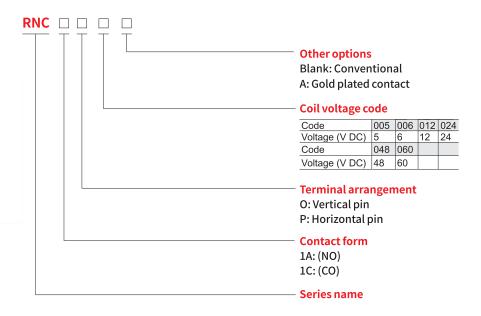


Socket

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Relay module



Configuration 1A,1C Load Resistance 6A/250VAC 30VDC Max. switching capacity (resistive) 1500VA,180W Min. switching capacity 170mW(17V/10mA) Initial contact resistance ≤100mΩ (gold plated contact ≤ 30mΩ) Material Ag alloy Electrical durability (normal temperature) (frequency 1s on, 5s off) NC: 6x10 Cycles (600 Ops/h); NC: 3x10 Cycles (600 Ops/h) Mechanical durability ≥2x10 Cycles (18000 Ops/h) Pick-up voltage (23°C) (Rated voltage) DC:≤5% Drop-out voltage (23°C) (Rated voltage) DC:≥5% Maximum voltage (23°C) (Rated voltage) 110% Insulation resistance ≥500MΩ (500VDC) Coil operating power 3-24 VDC(W) approx. 0.17W 48-60 VDC(W) approx. 0.21W Operate time (at nominal voltage) ≤8ms Release time (at nominal voltage) ≤4ms Initial breakdown Between open contacts 1000VAC/1min (leakage current 1mA) voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50µs) <td< th=""><th>Characterist</th><th>ics</th><th></th></td<>	Characterist	ics			
Max. switching capacity (resistive) Min. switching capacity 170mW(17V/10mA) Initial contact resistance ≤100mΩ (gold plated contact ≤ 30mΩ) Material Ag alloy Electrical durability (normal temperature) (frequency 1s on, 5s off) NO: 6x10 °Cycles (600 Ops/h); NC: 3x10 °Cycles (600 Ops/h) Mechanical durability ≥2x10 °Cycles (18000 Ops/h) Pick-up voltage (23°C) (Rated voltage) DC:≤75% Drop-out voltage (23°C) (Rated voltage) DC:≥5% Maximum voltage (23°C) (Rated voltage) 110% Insulation resistance ≥500MΩ (500VDC) Coil operating power 3~24 VDC(W) approx. 0.17W 48~60 VDC(W) approx. 0.21W Operate time (at nominal voltage) ≤8ms Release time (at nominal voltage) ≤4ms Initial breakdown Between open contacts 1000VAC/1min (leakage current 1mA) voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50µs) 4000V Protection level IP20		Configuration	1A,1C		
Contact Min. switching capacity 170mW(17V/10mA) Initial contact resistance ≤100mΩ (gold plated contact ≤ 30mΩ) Material Ag alloy Electrical durability (frequency 1s on, 5s off) NO: 6x10⁴Cycles (600 Ops/h); NC: 3x10⁴ Cycles (600 Ops/h) Pick-up voltage (23°C) (Rated voltage) DC:≤75% Drop-out voltage (23°C) (Rated voltage) DC:≤5% Maximum voltage (23°C) (Rated voltage) 110% Insulation resistance ≥500MΩ (500VDC) Coil operating power 3~24 VDC(W) approx. 0.17W 48ms Release time (at nominal voltage) ≤8ms Release time (at nominal voltage) ≤4ms Initial breakdown Between open contacts 1000VAC/1min (leakage current 1mA) voltage Insulation Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50µs) 4000V Protection level Storage temperature/ humidity <td rowspan="5">Contact</td> <td>Load Resistance</td> <td>6A/250VAC 30VDC</td>	Contact	Load Resistance	6A/250VAC 30VDC		
Initial contact resistance ≤100mΩ (gold plated contact ≤ 30mΩ) Material Ag alloy Electrical durability (normal temperature)(frequency 1s on, 5s off) Mechanical durability ≥2x10²Cycles (600 Ops/h) Mechanical durability ≥2x10²Cycles (18000 Ops/h) Pick-up voltage (23°C) (Rated voltage) DC:≤75% Drop-out voltage (23°C) (Rated voltage) DC:≥5% Maximum voltage (23°C) (Rated voltage) 110% Insulation resistance ≥500MΩ (500VDC) Coil operating power 3~24 VDC(W) approx. 0.17W A≈60 VDC(W) approx. 0.21W Operate time (at nominal voltage) ≤8ms Release time (at nominal voltage) ≤4ms Initial breakdown Between open contacts 1000VAC/1min (leakage current 1mA) voltage Between contacts and coil 4000VAC/1min (leakage current 1mA) Insulation Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50µs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (No condensation)		Max. switching capacity (resistive)	1500VA,180W		
Initial contact resistance ≤100mΩ (gold plated contact ≤ 30mΩ)		Min. switching capacity	170mW(17V/10mA)		
Electrical durability (normal temperature) (frequency 1s on, 5s off) Mechanical durability Pick-up voltage (23°C) (Rated voltage) Drop-out voltage (23°C) (Rated voltage) Insulation resistance Coil operating power Release time (at nominal voltage) Initial breakdown voltage Between contacts and coil Insulation Rated voltage Rated voltage Rated voltage Between contacts and coil Rated voltage Pollution level Impulse withstand voltage (waveform: 1.2/50μs) Protection level Storage temperature/ humidity NO: 6x10 ⁴Cycles (600 Ops/h) NC: 3x10 ⁴Cycles (600 Ops/h) NC: 450 Ops/h NC: 450		Initial contact resistance	≤100mΩ (gold plated contact ≤ 30mΩ)		
rature)(frequency 1s on, 5s off) Mechanical durability ≥2x10 Cycles (600 Ops/h) Pick-up voltage (23°C) (Rated voltage) Drop-out voltage (23°C) (Rated voltage) Drop-out voltage (23°C) (Rated voltage) Maximum voltage (23°C) (Rated voltage) Insulation resistance Coil operating power 3~24 VDC(W) 48~60 VDC(W) Operate time (at nominal voltage) Release time (at nominal voltage) Initial breakdown Between open contacts Voltage Between contacts and coil Insulation Rated voltage Characteristics Pollution level Impulse withstand voltage (waveform: 1.2/50µs) Protection level Storage temperature/ humidity Working temperature/ humidity VC.: 3x10⁴ Cycles (600 Ops/h) ≥2x10 Cycles (600 Ops/h) NC: 3x10⁴ Cycles (600 Ops/h) ≥2x10 Cycles (600 Ops/h) NC: 3x10⁴ Cycles (600 Ops/h) PC: 2x10 Cycles (600 Ops/h) Pol. 2x10 Cycles (600 Ops/h) Pol. 2x10 Cycles (600 Ops/h) Pol. 2x10 Cycles (18000 Ops/h) Pol. 2x10 Cycles (1800 Ops/h Pol. 2x10 Cycles Pol. 2x1		Material	Ag alloy		
Pick-up voltage (23°C) (Rated voltage) DC:≤75% Drop-out voltage (23°C) (Rated voltage) DC:≥5% Maximum voltage (23°C) (Rated voltage) 110% Insulation resistance ≥500MΩ (500VDC) Coil operating power 3~24 VDC(W) approx. 0.17W A8~60 VDC(W) approx. 0.21W Operate time (at nominal voltage) ≤8ms Release time (at nominal voltage) ≤4ms Initial breakdown Between open contacts 1000VAC/1min (leakage current 1mA) voltage Between contacts and coil 4000VAC/1min (leakage current 1mA) Insulation Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50μs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (No condensation) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)					
Drop-out voltage (23°C) (Rated voltage) DC:≥5% Maximum voltage (23°C) (Rated voltage) 110% Insulation resistance ≥500MΩ (500VDC) Coil operating power 3~24 VDC(W) approx. 0.17W A8~60 VDC(W) approx. 0.21W Operate time (at nominal voltage) ≤8ms Release time (at nominal voltage) ≤4ms Initial breakdown voltage Between open contacts of the period of the pe		Mechanical durability	≥2x10 ⁷ Cycles (18000 Ops/h)		
Maximum voltage (23°C) (Rated voltage) 110% Insulation resistance ≥500MΩ (500VDC) Coil operating power 3~24 VDC(W) approx. 0.17W 48~60 VDC(W) approx. 0.21W Operate time (at nominal voltage) ≤8ms Release time (at nominal voltage) ≤4ms Initial breakdown voltage Between open contacts 1000VAC/1min (leakage current 1mA) voltage Between contacts and coil 4000VAC/1min (leakage current 1mA) Insulation Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50μs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	Pick-up voltage	(23°C) (Rated voltage)	DC:≤75%		
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Coll operating power 48~60 VDC(W) approx. 0.21W Operate time (at nominal voltage) ≤8ms Release time (at nominal voltage) ≤4ms Initial breakdown Between open contacts 1000VAC/1min (leakage current 1mA) voltage Between contacts and coil 4000VAC/1min (leakage current 1mA) Insulation Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50µs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	Insulation resista	ance	≥500MΩ (500VDC)		
48~60 VDC(W) approx. 0.21W Operate time (at nominal voltage) ≤8ms Release time (at nominal voltage) ≤4ms Initial breakdown voltage Between open contacts 1000VAC/1min (leakage current 1mA) Voltage Between contacts and coil 4000VAC/1min (leakage current 1mA) Insulation Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50μs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	Coil operating power 3~24 VDC(W)		approx. 0.17W		
Release time (at nominal voltage) Initial breakdown between open contacts 1000VAC/1min (leakage current 1mA) voltage Between contacts and coil 4000VAC/1min (leakage current 1mA) Insulation Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50µs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)		48~60 VDC(W)	approx. 0.21W		
Initial breakdown voltage Between open contacts 1000VAC/1min (leakage current 1mA) Insulation characteristics Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50μs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	Operate time (at nominal voltage)		≤8ms		
voltage Between contacts and coil 4000VAC/1min (leakage current 1mA) Insulation Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50μs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	Release time (at nominal voltage)		≤4ms		
Insulation Rated voltage 250VAC characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50μs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	Initial breakdowr	Between open contacts	1000VAC/1min (leakage current 1mA)		
characteristics Pollution level 3 IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50µs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	voltage	Between contacts and coil	4000VAC/1min (leakage current 1mA)		
IEC 60664 UL840 Overvoltage level III Impulse withstand voltage (waveform: 1.2/50μs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	Insulation	Rated voltage	250VAC		
Impulse withstand voltage (waveform: 1.2/50μs) 4000V Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	characteristics	Pollution level	3		
Protection level IP20 Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	IEC 60664 UL8	40 Overvoltage level	III		
Storage temperature/ humidity -55~+85°C/ ≤85%RH (18 months) Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)	Impulse withstand voltage (waveform: 1.2/50µs)		4000V		
Working temperature/ humidity -40~+85°C/ 5%~85%RH (No condensation)			IP20		
	Storage temperature/ humidity		,		
Air	Working temperature/ humidity		-40~+85°C/ 5%~85%RH (No condensation)		
Air pressure 86~106KPa	Air pressure		86~106KPa		
Shock resistance 10G (half-sine shock pulse: 11ms)	Shock resistance	e	10G (half-sine shock pulse: 11ms)		
Vibration resistance 10~55Hz double-amplitude:1.0mm	Vibration resista	nce	10~55Hz double-amplitude:1.0mm		
Mounting PCB	Mounting		PCB		
Unit weight approx. 6g	Unit weight		approx. 6g		

Selection manual of industrial control relay

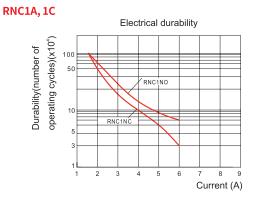
RNC

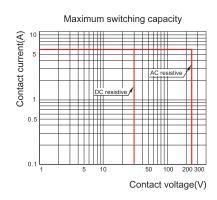
Interface Relay Module

Coil Specifications (23°C)				
Nominal voltage V.DC (0.17W)		6	12	24
Coil resistance Ω		212	847	3250
Nominal voltage V.DC (0.21W)	48	60		
Coil resistance Ω	10971	17143		

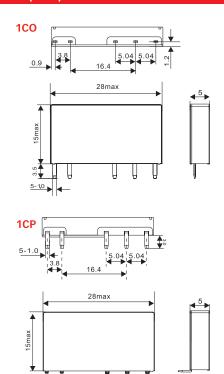
Coil resistance: under coil voltage 110V are measured with tolerance of $\pm 10\%\Omega$.

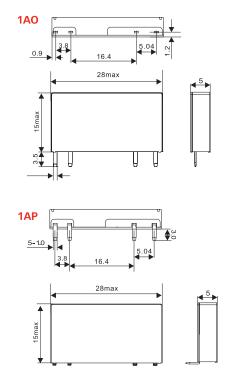
Contact Specification



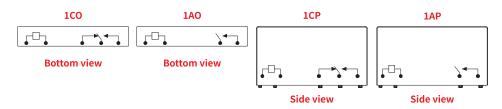


Dimensions (mm)





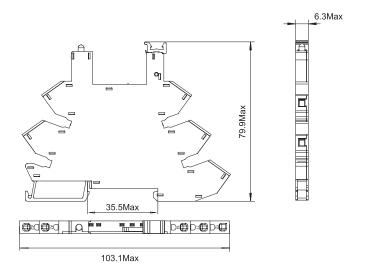
Wiring Diagrams





*SNC05-S-DR optional, anti-interference function.

Dimensions (mm)



Connection Diagrams

