

ELECTRONIC PRODUCTS

RSP SERIES AC/DC SWITCHING POWER SUPPLIES

E01-E02

Switching Power Supply

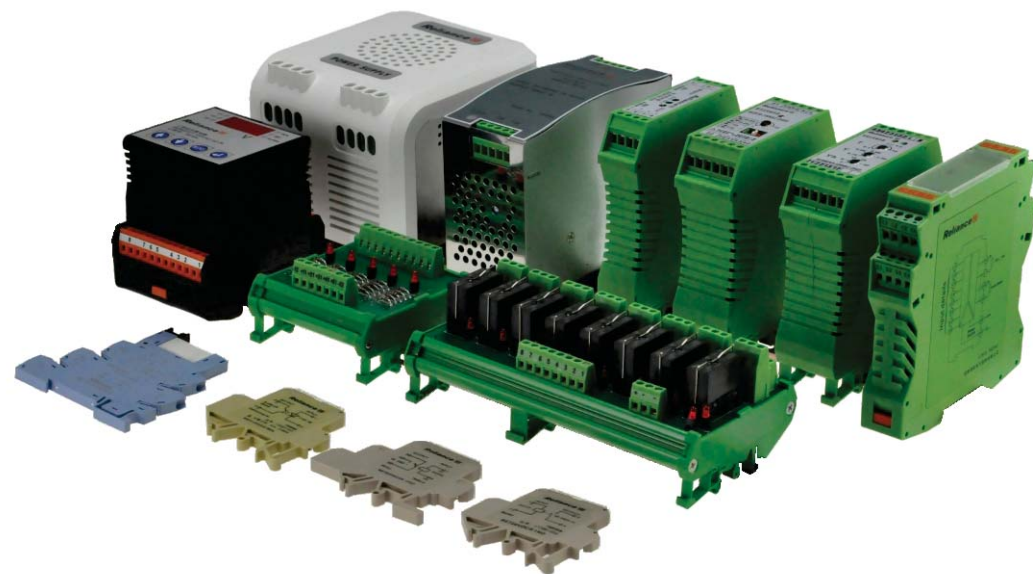
- > high power density, low temperature rise, high efficiency, no need for an external filter and electrolytic capacitor
- > digital display, high stability, long service life
- > built-in over current protection, over voltage, under voltage and short-circuit protection
- > small size, flexible installation

Relay And Optocoupler

- > optocoupler transmission with small signal loss, high switching frequency, no contact jitter, no worn switch, vibration resistance
- > optocoupler product without mechanical component, with long service life, insulated, highly voltage resistance
- > relay load with large switching current, optional multiple contact forms

Signal Isolator And Transmitter

- > enclosed structure, strong vibration resistance, high flame retardant grade
- > unique circuit shielding technology, good anti-jamming ability
- > low power consumption, low temperature drift, short response time



General information

RSP Switching power supplies from Chengdu Reliance are widely used in process automation industry, electric power industry, transportation industry, machinery industry, communication industry and so on.

Features

- Wide input voltage (85VAC ~ 264VAC) , wide application field.
- High power density, low temperature rise, high efficiency and no need for an external filter and electrolytic capacitor.
- Input is set with EMI filter, which has the strong ability to suppress interferences.
- highly stable output voltage, potentiometer adjustment available
- digital display, improving products' competitiveness
- high stability, long service life, authoritative certification
- compact structure design, small size, light weight, saving installation space and transportation cost
- flexible installation
- high energy saving and low no-load ratio

Model Implication

RSP □□-□□□-□□□
① ② ③ ④ ⑤

①RSP represents	Reliance Switching Power			
②Product series No:	1. the first generation	2. the second generation	3. the third genertaion	
③Power output circuit No:	1. single circuit output	2. two circuit output	3. three circuit output	
④The total output power	25 for 25W	50 for 50W	75 for 75W.....	n for nW
⑤Voltage of output main circuit:	5 for 5V	12 for 12V	24 for 24V	n for nV



15W/Single output

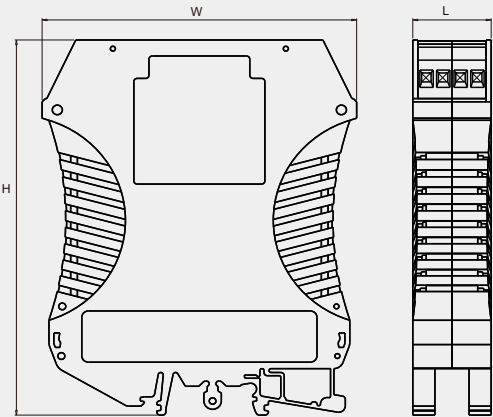
Technical Data

Input voltage	100~240VAC	120~370VDC
Input frequency	50/60Hz	
Inrush current(25°C)	40A/220VAC	
Hold up time	13ms	
Overload protection	Over current protection	
Short-circuit protection	Auto recovery	
Over voltage protection	Auto recovery	
Operating temprature	-20°C~+55°C, ambient temperature	
Operating humidity	5~95%RH, no condensation	
Storage temperature	-20°C~+85°C, ambient temperature	
Vibration test	2G , 10~500Hz, 3 axes	
Cooling method	natural heat dissipation , no cooling fan	

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-15-9	9V/1.6A	≤1%	±1%	≤1%	70%	763701
RSP21-15-10	10V/1.5A	≤1%	±1%	≤1%	74%	763705
RSP21-15-12	12V/1.2A	≤1%	±1%	≤1%	72%	763702
RSP21-15-15	15V/1A	≤1%	±1%	≤1%	72%	763703
RSP21-15-24	24V/0.6A	≤1%	±1%	≤1%	74%	763704

Overall Dimension



118(H)*94(W)*24(L)mm



25W/Single output

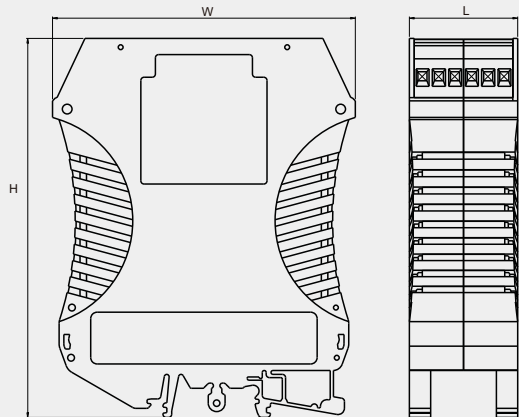
Technical Data

Input voltage	100~240VAC	120~370VDC
Input frequency	50/60Hz	
Inrush current(25°C)	40A/220VAC	
Hold up time	13ms	
Overload protection	Over current protection	
Short-circuit protection	Auto recovery	
Over voltage protection	Auto recovery	
Operating temprature	-20°C~+55°C, ambient temperature	
Operating humidity	5~95%RH, no condensation	
Storage temperature	-20°C~+85°C, ambient temperature	
Vibration test	2G , 10~500Hz , 3 axes	
Cooling method	natural heat dissipation, no cooling fan	

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-25-5	5V/5A	≤2%	±2%	≤2%	77%	763710
RSP21-25-9	9V/2.5A	≤1%	±1%	≤1%	77%	763711
RSP21-25-10	10V/2.5A	≤1%	±1%	≤1%	78%	763716
RSP21-25-12	12V/2A	≤1%	±1%	≤1%	77%	763712
RSP21-25-15	15V/1.6A	≤1%	±1%	≤1%	77%	763713
RSP21-25-24	24V/1A	≤1%	±1%	≤1%	77%	763714
RSP21-25-48	48V/0.5A	≤1%	±1%	≤1%	78%	763715

Overall Dimension



118(H)*94(W)*34(L)mm



50W/ Single output

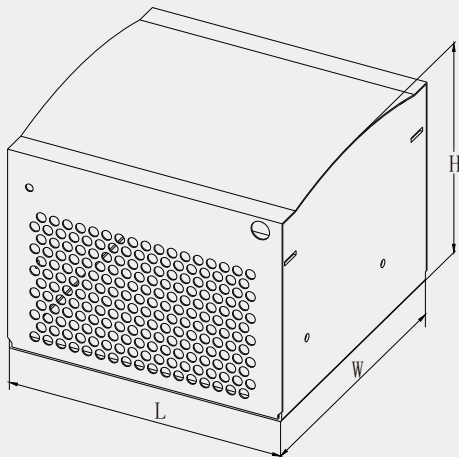
Technical Data

Input voltage	176~264VAC	240~380VDC
Input frequency	50/60Hz	
Inrush current(25°C)	40A/220VAC	
Hold up time	15ms	
Overload protection	Over current protection	
Short-circuit protection	Auto recovery	
Over voltage protection	Auto recovery	
Operating temprature	-20°C~+55°C, ambient temperature	
Operating humidity	5~95%RH, no condensation	
Storage temperature	-20°C~+85°C, ambient temperature	
Vibration test	2G , 10~500Hz , 3 axes	
Cooling method	natural heat dissipation, no cooling fan	

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-50-5	5V/10A	≤2%	±2%	≤2%	76%	763741
RSP21-50-12	12V/4A	≤1%	±1%	≤1%	76%	763742
RSP21-50-24	24V/2A	≤1%	±1%	≤1%	76%	763743
RSP21-50-48	48V/1A	≤1%	±1%	≤1%	76%	763744

Overall Dimension



99(H)*125(W)*55(L)mm



60W/Single output

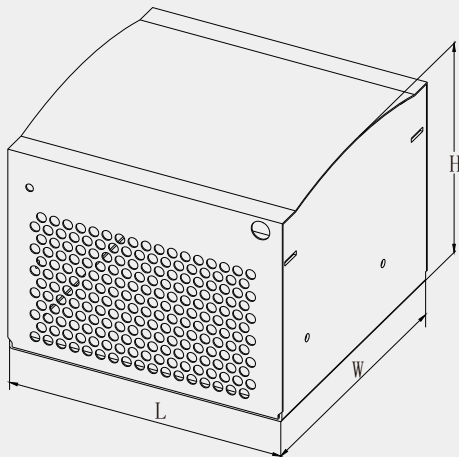
Technical Data

Input voltage	176~264VAC	240~380VDC
Input frequency	50/60Hz	
Inrush current(25°C)	40A/220VAC	
Hold up time	15ms	
Overload protection	Over current protection	
Short-circuit protection	Auto recovery	
Over voltage protection	Auto recovery	
Operating temprature	-20°C~+55°C, ambient temperature	
Operating humidity	5~95%RH, no condensation	
Storage temperature	-20°C~+85°C, ambient temperature	
Vibration test	2G , 10~500Hz , 3 axes	
Cooling method	natural heat dissipation, no cooling fan	

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-60-5	5V/12A	≤2%	±2%	≤2%	76%	763751
RSP21-60-12	12V/5A	≤1%	±1%	≤1%	76%	763752
RSP21-60-15	15V/4A	≤1%	±1%	≤1%	77%	763755
RSP21-60-24	24V/2.5A	≤1%	±1%	≤1%	77%	763753
RSP21-60-48	48V/1.2A	≤1%	±1%	≤1%	77%	763754

Overall Dimension



99(H)*125(W)*55(L)mm



75W/Single output

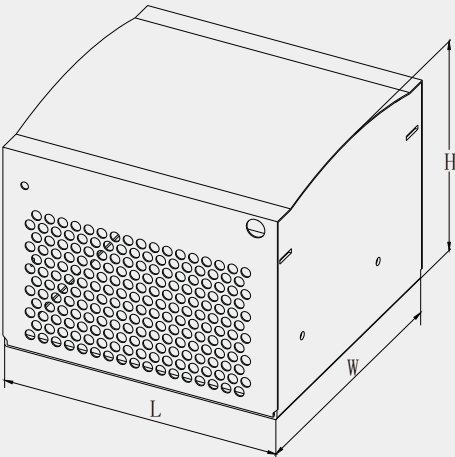
Technical Data

Input voltage	176~264VAC	240~380VDC
Input frequency	50/60Hz	
Inrush current(25°C)	40A/220VAC	
Hold up time	15ms	
Overload protection	Over current protection	
Short-circuit protection	Auto recovery	
Over voltage protection	Auto recovery	
Operating temprature	-20°C~+55°C, ambient temperature	
Operating humidity	5~95%RH, no condensation	
Storage temperature	-20°C~+85°C, ambient temperature	
Vibration test	2G , 10~500Hz , 3 axes	
Cooling method	natural heat dissipation , no cooling fan	

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-75-12	12V/6A	≤1%	±1%	≤1%	77%	763854
RSP21-75-15	15V/5A	≤1%	±1%	≤1%	78%	763855
RSP21-75-24	24V/3A	≤1%	±1%	≤1%	78%	763853
RSP21-75-48	48V/1.5A	≤1%	±1%	≤1%	78%	763852

Overall Dimension



99(H)*125(W)*55(L)mm



100W/Single output

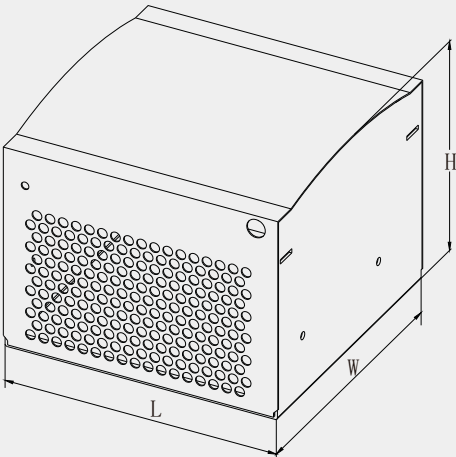
Technical Data

Input voltage	176~264VAC	240~380VDC
Input frequency	50/60Hz	
Inrush current(25°C)	40A/220VAC	
Hold up time	10ms	
Overload protection	Over current protection	
Short-circuit protection	Auto recovery	
Over voltage protection	Auto recovery	
Operating temprature	-20°C~+55°C, ambient temperature	
Operating humidity	5~95%RH, no condensation	
Storage temperature	-20°C~+85°C, ambient temperature	
Vibration test	2G , 10~500Hz , 3 axes	
Cooling method	natural heat dissipation , no cooling fan	

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-100-12	12V/8A	≤1%	±1%	≤1%	77%	763763
RSP21-100-15	15V/6A	≤1%	±1%	≤1%	78%	763764
RSP21-100-24	24V/4A	≤1%	±1%	≤1%	78%	763765
RSP21-100-48	48V/2A	≤1%	±1%	≤1%	78%	763766

Overall Dimension



99(H)*125(W)*65(L)mm



120W/Single output

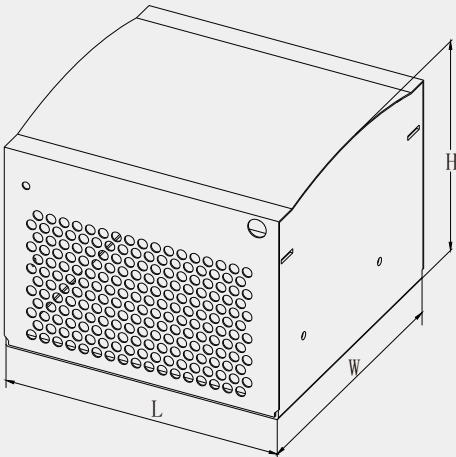
Technical Data

Input voltage	176~264VAC	240~380VDC
Input frequency	50/60Hz	
Inrush current(25°C)	40A/220VAC	
Hold up time	10ms	
Overload protection	Over current protection	
Short-circuit protection	Auto recovery	
Over voltage protection	None Auto recovery	
Operating temprature	-20°C~+55°C, ambient temperature	
Operating humidity	5~95%RH, no condensation	
Storage temperature	-20°C~+85°C, ambient temperature	
Vibration test	2G , 10~500Hz , 3 axes	
Cooling method	natural heat dissipation , no cooling fan	

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-120-12	12V/10A	≤1%	±1%	≤1%	80%	763811
RSP21-120-15	15V/8A	≤1%	±1%	≤1%	80%	763812
RSP21-120-24	24V/5A	≤1%	±1%	≤1%	80%	763813
RSP21-120-48	48V/2.5A	≤1%	±1%	≤1%	80%	763814

Overall Dimension



99(H)*125(W)*65(L)mm



150W/Single output

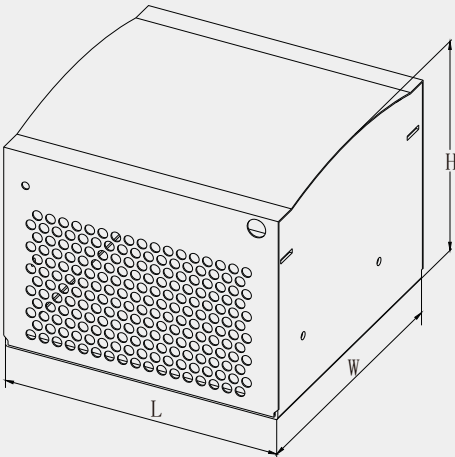
Technical Data

Input voltage	176~264VAC	240~380VDC
Input frequency	50/60Hz	
Inrush current(25°C)	40A/220VAC	
Hold up time	10ms	
Overload protection	Over current protection	
Short-circuit protection	Auto recovery	
Over voltage protection	None Auto recovery	
Operating temprature	-20°C~+55°C, ambient temperature	
Operating humidity	5~95%RH, no condensation	
Storage temperature	-20°C~+85°C, ambient temperature	
Vibration test	2G , 10~500Hz , 3 axes	
Cooling method	natural heat dissipation , no cooling fan	

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-150-24	24V/6A	≤1%	±1%	≤1%	80%	763823
RSP21-150-36	36V/4A	≤1%	±1%	≤1%	80%	763824
RSP21-150-48	48V/3A	≤1%	±1%	≤1%	80%	763825

Overall Dimension



99(H)*125(W)*65(L)mm



200W/Single output

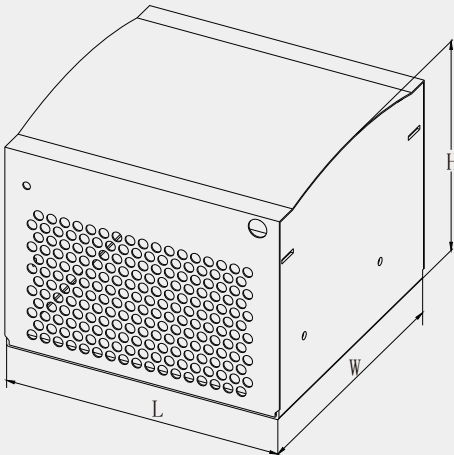
Technical Data

Input voltage	176~264VAC 240~380VDC
Input frequency	50/60Hz
Inrush current(25°C)	40A/220VAC
Hold up time	10ms
Overload protection	Over current protection
Short-circuit protection	Auto recovery
Over voltage protection	None Auto recovery
Operating temprature	-20°C~+55°C, ambient temperature
Operating humidity	5~95%RH, no condensation
Storage temperature	-20°C~+85°C, ambient temperature
Vibration test	2G , 10~500Hz , 3 axes
Cooling method	natural heat dissipation , no cooling fan

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-200-12	12V/15A	≤1%	±1%	≤1%	80%	763831
RSP21-200-15	15V/13A	≤1%	±1%	≤1%	80%	763832
RSP21-200-24	24V/8A	≤1%	±1%	≤1%	80%	763833
RSP21-200-36	36V/5.5A	≤1%	±1%	≤1%	80%	763834

Overall Dimension



99(H)*125(W)*125(L)mm



250W/Single output

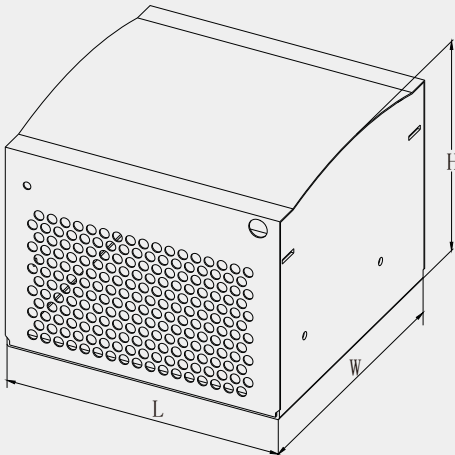
Technical Data

Input voltage	176~264VAC 240~380VDC
Input frequency	50/60Hz
Inrush current(25°C)	40A/220VAC
Hold up time	10ms
Overload protection	Over current protection
Short-circuit protection	Auto recovery
Over voltage protection	None Auto recovery
Operating temprature	-20°C~+55°C, ambient temperature
Operating humidity	5~95%RH, no condensation
Storage temperature	-20°C~+85°C, ambient temperature
Vibration test	2G , 10~500Hz , 3 axes
Cooling method	natural heat dissipation , no cooling fan

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-250-24	24V/10A	≤1%	±1%	≤1%	82%	763843
RSP21-250-36	36V/7A	≤1%	±1%	≤1%	82%	763844
RSP21-250-48	48V/5A	≤1%	±1%	≤1%	82%	763845

Overall Dimension



99(H)*125(W)*125(L)mm



500W/Single output

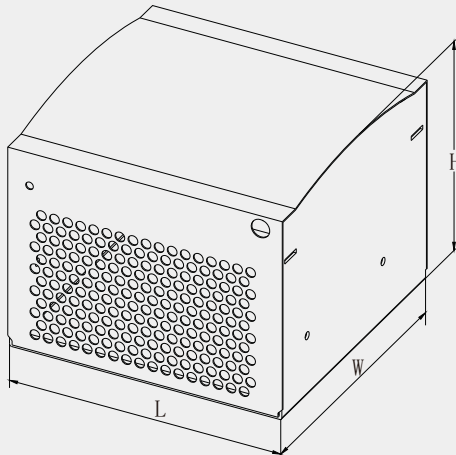
Technical Data

Input voltage	176~264VAC 240~380VDC
Input frequency	50/60Hz
Inrush current(25°C)	40A/220VAC
Hold up time	10ms
Overload protection	Over current protection
Short-circuit protection	Auto recovery
Over voltage protection	None Auto recovery
Operating temprature	-20°C~+55°C, ambient temperature
Operating humidity	5~95%RH, no condensation
Storage temperature	-20°C~+85°C, ambient temperature
Vibration test	2G , 10~500Hz , 3 axes
Cooling method	natural heat dissipation , no cooling fan

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP21-500-24	24V/20A	≤1%	±1%	≤1%	82%	773529
RSP21-500-48	48V/10A	≤1%	±1%	≤1%	82%	773528

Overall Dimension



99(H)*125(W)*227(L)mm



250W/PFC Single output

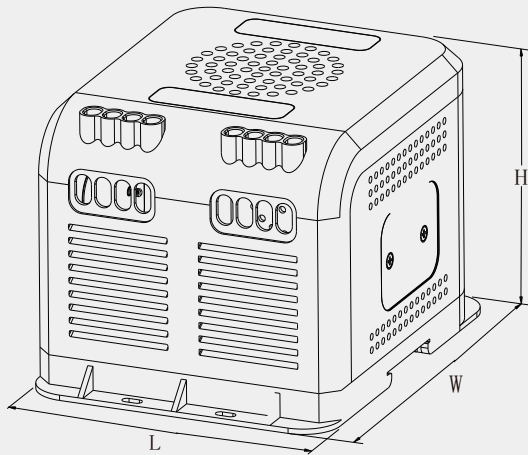
Technical Data

Input voltage	100~240VAC 120~380VDC
Input frequency	50/60Hz
Inrush current(25°C)	40A/220VAC
Hold up time	10ms
Overload protection	Over current protection
Short-circuit protection	None Auto recovery
Over voltage protection	None Auto recovery
Operating temprature	-20°C~+55°C, ambient temperature
Operating humidity	5~95%RH, no condensation
Storage temperature	-20°C~+85°C, ambient temperature
Vibration test	2G , 10~500Hz , 3 axes
Cooling method	cooling fan

Specifications

Model	Output	Voltage stability	Load stability	Ripple coefficient	Efficiency	Ordering No.
RSP31-250-12	12V/20A	≤1%	±1%	≤1%	85%	723182
RSP31-250-24	24V/10A	≤1%	±1%	≤1%	86%	723184
RSP31-250-48	48V/5A	≤1%	±1%	≤1%	86%	723187

Overall Dimension



104(H)*130(W)*116(L)mm

Terminal blocks with optocouplers

General information

- Terminal block type structure, space-saving
- RTR35 and RTR32 mounting type
- Small signal loss, high switching frequency, non-contact chatter
- Non-worn switch, vibration-supportive, flexible mounting position
- Non-mechanical component, highly insulation withstand voltage



Universal type

Model implication

RET □ □ V □ C O R □ □ □ □
① ② ③ ④ ⑤ ⑥ ⑦

- ① Configuration: Terminal block type
- ② Rated input voltage: 5VDC 12VDC 24VDC 110VDC 220VDC 24VUC 110VUC 220VUC
- ③ O for optocoupler
- ④ R for positive going
- ⑤ Max. output current: 20mA 50mA 100mA 300mA 500mA
- ⑥ Output voltage: L for 5V-48VDC or 24VDC M for 110VDC H for 48V-220VDC
- ⑦ Output type: None for NPN type; P for PNP type.

Technical data

Insulation parameter

Rated voltage	300V
Rated impulse voltage	4000V
Pollution security	3
Clearance and creep distance	≥3mm
Operating temperature	-10℃~+55℃
Storage temperature	-25℃~+70℃
Conductor cross-section	0.5~1.5mm ²
Tightening torque range	0.4~0.6Nm

Insertion bridge	Type	Order No.
	QB2-2.5BK	810212
	QB3-2.5BK	810213
	QB4-2.5BK	810214
	QB10-2.5BK	810220



Large current and high frequency type

Model implication

RET □ □ VDC 5 O R □ □ L
① ② ③ ④ ⑤ ⑥ ⑦

- ① Configuration: Terminal block type
- ② Rated input voltage: 12VDC 24VDC
- ③ 5 for structure code
- ④ O for optocoupler
- ⑤ R for positive going
- ⑥ Max. output current: 20mA 1A 2A
- ⑦ Output voltage: L for 24VDC

Input

Switch-on voltage	>0.8 Rated input voltage
Switch-off voltage	<0.4 Rated input voltage
Input voltage range	±10% Rated input voltage

End cover	Type	Color	Order No.
Thickness: 1.5mm	REP4 GY	GY	764006
	REP4 CC	CC	768006
	REP4 BG	BG	769006
	REP5	BG	769007

Product specifications

NPN type (positive-going DC input)

Type	Rated input voltage	Input current	Max. input power	Output voltage	Switch-off delay	Switch-on delay	Max. output current	Output voltage drop	Max. switching frequency	Order No.
RET5VDCO R20L	5VDC	10mA	55mW	5~48VDC	≤180 μ s	≤80 μ s	20mA	≤1V	500Hz	768066
RET12VDCO R20L	12VDC	10mA	132mW	5~48VDC	≤180 μ s	≤80 μ s	20mA	≤1V	500Hz	768070
RET12VDCO R20H	12VDC	10mA	132mW	48~220VDC	≤500 μ s	≤80 μ s	20mA	≤1V	500Hz	768071
RET24VDCO R20L	24VDC	4mA	105mW	5~48VDC	≤180 μ s	≤80 μ s	20mA	≤1V	500Hz	768056
RET24VDCO R20H	24VDC	11mA	290mW	48~220VDC	≤500 μ s	≤80 μ s	20mA	≤1V	500Hz	768073
RET110VDCO R20L	110VDC	2.6mA	315mW	5~48VDC	≤180 μ s	≤80 μ s	20mA	≤1V	500Hz	768255
RET220VDCO R20L	220VDC	2.8mA	680mW	5~48VDC	≤180 μ s	≤80 μ s	20mA	≤1V	500Hz	768253
RET220VDCO R20H	220VDC	2.8mA	680mW	48~220VDC	≤500 μ s	≤80 μ s	20mA	≤1V	500Hz	768086
RET5VDCO R50L	5VDC	10mA	55mW	5~48VDC	≤180 μ s	≤80 μ s	50mA	≤1.5V	500Hz	768105
RET12VDCO R50L	12VDC	10mA	132mW	5~48VDC	≤180 μ s	≤80 μ s	50mA	≤1.5V	500Hz	768130
RET12VDCO R50H	12VDC	10mA	132mW	48~220VDC	≤500 μ s	≤80 μ s	50mA	≤1.5V	500Hz	768131
RET24VDCO R50L	24VDC	4mA	105mW	5~48VDC	≤180 μ s	≤80 μ s	50mA	≤1.5V	500Hz	768132
RET24VDCO R50H	24VDC	11mA	290mW	48~220VDC	≤500 μ s	≤80 μ s	50mA	≤1.5V	500Hz	768133
RET110VDCO R50L	110VDC	2.6mA	315mW	5~48VDC	≤180 μ s	≤80 μ s	50mA	≤1.5V	500Hz	768060
RET220VDCO R50L	220VDC	2.8mA	680mW	5~48VDC	≤180 μ s	≤80 μ s	50mA	≤1.5V	500Hz	768061
RET220VDCO R50H	220VDC	2.8mA	680mW	48~220VDC	≤500 μ s	≤80 μ s	50mA	≤1.5V	500Hz	768114
RET24VDCO R100L	24VDC	7mA	185mW	5~48VDC	≤180 μ s	≤80 μ s	100mA	≤1.2V	500Hz	768095
RET220VDCO R100L	220VDC	7mA	185mW	5~48VDC	≤180 μ s	≤80 μ s	100mA	≤1.5V	500Hz	768123
RET24VDCO R300L	24VDC	7mA	185mW	5~48VDC	≤180 μ s	≤80 μ s	300mA	≤1.2V	500Hz	768052
RET24VDCO R300M	24VDC	7mA	185mW	110VDC	≤180 μ s	≤80 μ s	300mA	≤1.5V	500Hz	768077
RET220VDCO R300L	220VDC	2.8mA	680mW	5~48VDC	≤180 μ s	≤80 μ s	300mA	≤1.5V	500Hz	768142
RET24VDCO R500L	24VDC	7mA	185mW	5~48VDC	≤180 μ s	≤80 μ s	500mA	≤1.5V	500Hz	768090

NPN type (positive-going UC input)

Type	Rated input voltage	Input current	Max. input power	Output voltage	Switch-off delay	Switch-on delay	Max. output current	Output voltage drop	Max. switching frequency	Order No.
RET24VUCO R20L	24VUC	5.5/4mA	180mVA/140mW	5~48VDC	≤20ms	≤10ms	20mA	≤1V	10Hz	768068
RET110VUCO R20L	110VUC	5.4/4.8mA	730mVA/700mW	5~48VDC	≤20ms	≤10ms	20mA	≤1V	10Hz	768113
RET220VUCO R20L	220VUC	2.4/2.2mA	600mVA/550mW	5~48VDC	≤20ms	≤10ms	20mA	≤1V	10Hz	768059
RET24VUCO R50L	24VUC	5.5/4mA	180mVA/140mW	5~48VDC	≤20ms	≤10ms	50mA	≤1.5V	10Hz	768134
RET110VUCO R50L	110VUC	5.4/4.8mA	730mVA/700mW	5~48VDC	≤20ms	≤10ms	50mA	≤1.5V	10Hz	768089
RET220VUCO R50L	220VUC	2.4/2.2mA	600mVA/550mW	5~48VDC	≤20ms	≤10ms	50mA	≤1.5V	10Hz	768087
RET220VUCO R100L	220VUC	2.4/2.2mA	600mVA/550mW	5~48VDC	≤20ms	≤10ms	50mA	≤1.5V	10Hz	768144

NPN anti-interference type (positive-going DC input)

Type	Rated input voltage	Input current	Max. input power	Output voltage	Switch-off delay	Switch-on delay	Max. output current	Output voltage drop	Max. switching frequency	Order No.
RET110VDCO R20L	110VDC	2.6mA	315mW	5~48VDC	≤180 μ s	≤80 μ s	20mA	≤1V	500Hz	768155
RET220VDCO R20L	220VDC	2.8mA	680mW	5~48VDC	≤180 μ s	≤80 μ s	20mA	≤1V	500Hz	768153

High frequency

Type	Rated input voltage	Input current	Max. input power	Output voltage	Switch-off delay	Switch-on delay	Max. output current	Output voltage drop	Max. switching frequency	Order No.
RET12VDC5O R20L	12VDC	6mA	90mW	24VDC	≤2 μ s	≤1 μ s	20mA	≤1V	10kHz	769080
RET24VDC5O R20L	24VDC	6mA	180mW	24VDC	≤2 μ s	≤1 μ s	20mA	≤1V	10kHz	769079

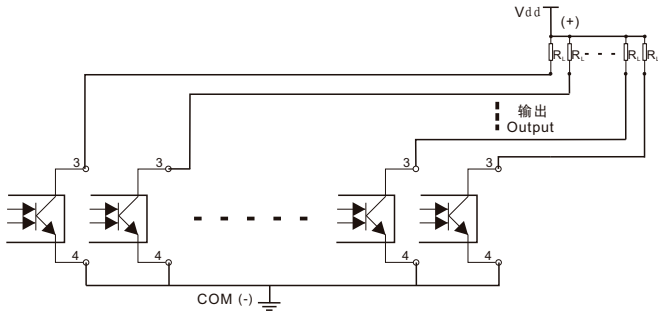
Large current

Type	Rated input voltage	Input current	Max. input power	Output voltage	Switch-off delay	Switch-on delay	Max. output current	Output voltage drop	Max. switching frequency	Order No.
RET12VDC50 R1AL	12VDC	6mA	90mW	24VDC	≤80 μ s	≤30 μ s	1A	≤0.6V	1000Hz	769078
RET24VDC50 R1AL	24VDC	10mA	300mW	24VDC	≤80 μ s	≤30 μ s	1A	≤0.6V	1000Hz	769072
RET12VDC50 R2AL	12VDC	6mA	90mW	24VDC	≤80 μ s	≤30 μ s	2A	≤0.6V	1000Hz	769117
RET24VDC50 R2AL	24VDC	10mA	300mW	24VDC	≤80 μ s	≤30 μ s	2A	≤0.6V	1000Hz	769116

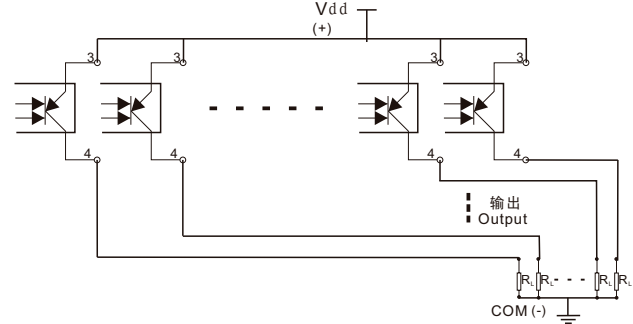
PNP type (positive-going DC input)

Type	Rated input voltage	Input current	Max. input power	Output voltage	Switch-off delay	Switch-on delay	Max. output current	Output voltage drop	Max. switching frequency	Order No.
RET24VDCO R100LP	24VDC	7mA	185mW	5~48VDC	≤180 μ s	≤80 μ s	100mA	≤1V	500Hz	768202
RET110VDCO R100LP	110VDC	2.6mA	315mW	5~48VDC	≤180 μ s	≤80 μ s	100mA	≤1V	500Hz	768201
RET220VDCO R100LP	220VDC	2.8mA	680mW	5~48VDC	≤180 μ s	≤80 μ s	100mA	≤1V	500Hz	768200
RET5VDCO R100LP	5VDC	10mA	55mW	5~48VDC	≤180 μ s	≤80 μ s	100mA	≤1V	500Hz	768204
RET12VDCO R100LP	12VDC	10mA	132mW	5~48VDC	≤180 μ s	≤80 μ s	100mA	≤1V	500Hz	768203
RET110VUCO R100LP	110VDC	5mA	730mW	5~48VDC	≤20ms	≤10ms	100mA	≤1V	10Hz	768205
RET220VUCO R100LP	220VDC	2.3mA	600mW	5~48VDC	≤20ms	≤10ms	100mA	≤1V	10Hz	768206

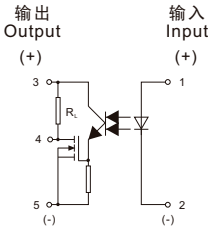
Electric diagram



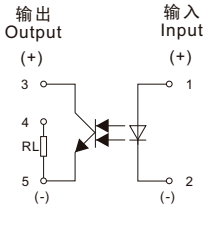
NPN型光耦接线示意图



PNP型光耦接线示意图

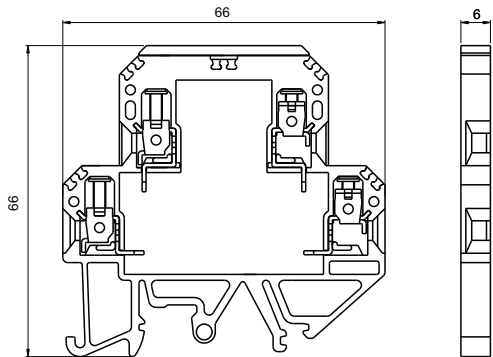


Large current

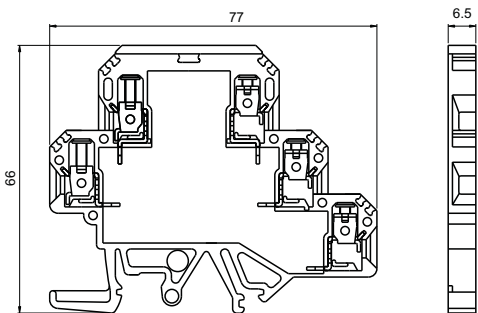


High frequency

Overall dimension



RET□□□V□CO



RET□□□VDC50

PCB board bases with optocoupler



General information

- Easy to be installed and disassembled
- RTR35 and RTR32 mounting type
- Max. output current at the load end is 3A.
- With LED indicators for power status
- Be subjected to RoHS compliance

Technical data

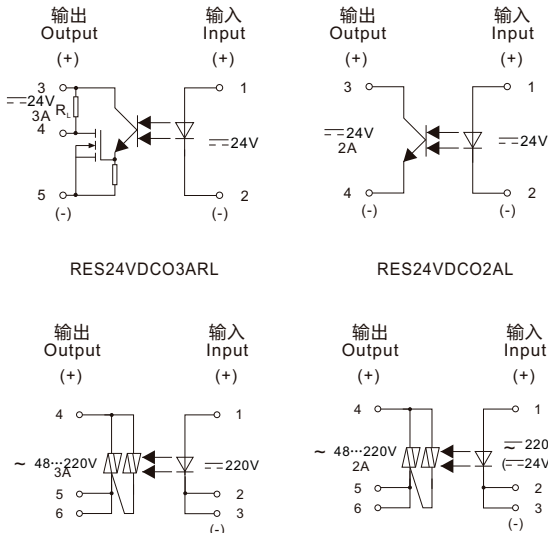
Insulation parameter	Input
Rated voltage	300V
Rated impulse voltage	4000V
Pollution secerity	3
Clearance and creep distance	≥3mm
Operating temperature	-10℃~+55℃
Storage temperature	-25℃~+70℃
Conductor cross-section	0.5~1.5mm ²
Tightening torque range	0.4~0.6Nm
Switch-on voltage	>0.8 Rated input voltage
Switch-off voltage	<0.4 Rated input voltage
Input voltage range	±10% Rated input voltage

Product specifications

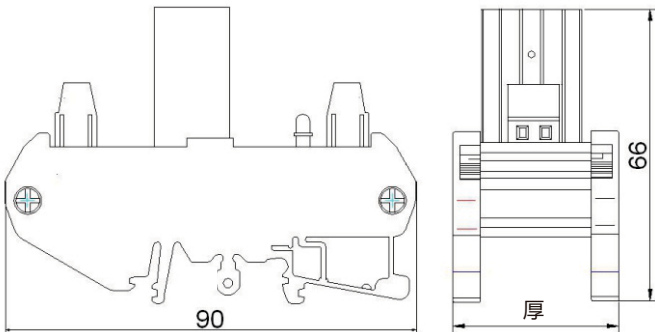
Ordering data

Type	Rated input voltage	Input current	Max. input power	Output voltage	Switch-off delay	Switch-on delay	Max. output current	Output voltage drop	Output leakage current	Max. switching frequency	Size (Width/Thickness/Height) mm	Order No.
RES24VDCO3ARL	24VDC	11mA	300mW	24VDC	≤80 μ s	≤30 μ s	≤3A	≤1V	≤100 μ A	100Hz	90/29/66	767002
RES24VDCO2AL	24VDC	11mA	300mW	24VDC	≤80 μ s	≤30 μ s	≤2A	≤1.7V	≤100 μ A	100Hz	90/26/66	767008
RES24VDCO2AH	24VDC	5mA	132mW	48~220VAC	≤20ms	≤10ms	≤2A	≤1.5V	≤5mA	5Hz	90/36/66	767004
RES220VDCO3AH	220VDC	5mA	1.2W	48~220VAC	≤20ms	≤10ms	≤3A	≤1.5V	≤5mA	5Hz	90/36/66	767005
RES220VUCO2AH	220VDC/AC	5mA	1.2W	48~220VAC	≤20ms	≤10ms	≤2A	≤1.5V	≤5mA	5Hz	90/36/66	767006

Electric diagram



Overall dimension



Multicircuit optocoupler



General information

- Easy to be installed and disassembled
- RTR35 and RTR32 mounting type
- 5-plex and 8-plex are available
- With LED indicators for power status
- Be subjected to RoHS compliance

Model implication

- RES □□□□ MO □□L- □A
- ① ② ③ ④ ⑤
- ① Configuration: PCB board bases type

② Rated input voltage: 5VDC 12VDC 24VDC 110VDC 220VDC 110VAC 220VAC

③ MO for multicircuit optocoupler

④ Max. output current: 20mA 50mA

⑤ 8A for 8-plex, input negative
5A for 5-plex, input negative

Technical data

Insulation parameter		Input	
Rated voltage	300V	Switch-on voltage	>0.8 Rated input voltage
Rated impulse voltage	4000V	Switch-off voltage	<0.4 Rated input voltage
Pollution secerity	3	Input voltage range	±10% Rated input voltage
Clearance and creep distance	≥3mm		
Operating temperature	-10℃~+55℃		
Storage temperature	-25℃~+70℃		
Conductor cross-section	0.5~1.5mm ²		
Tightening torque range	0.4~0.6 N•m		

Product specifications

Ordering data

Type	Rated input voltage	Input current	Input power	Output voltage	Switch-off delay	Switch-on delay	Output current	Output voltage drop	Max. switching frequency	Size (Width/Thickness/Height)mm	Note	Order No.
RES110VDCMO20L-5A	110VDC	7mA	1W	5~48VDC	≤180 μ s	≤80 μ s	≤20mA	≤1V	500Hz	90/80/48	Input negative	767013
RES220VDCMO20L-5A	220VDC	5mA	1.7W	5~48VDC	≤180 μ s	≤80 μ s	≤20mA	≤1V	500Hz	90/80/48	Input negative	767011
RES5VDCMO20L-8A	5VDC	10mA	85mW	5~48VDC	≤180 μ s	≤80 μ s	≤20mA	≤1V	500Hz	90/93/48	Input negative	767022
RES12VDCMO20L-8A	12VDC	10mA	170mW	5~48VDC	≤180 μ s	≤80 μ s	≤20mA	≤1V	500Hz	90/93/48	Input negative	767021
RES24VDCMO20L-8A	24VDC	10mA	370mW	5~48VDC	≤180 μ s	≤80 μ s	≤20mA	≤1V	500Hz	90/93/48	Input negative	767016
RES110VDCMO20L-8A	110VDC	7mA	1W	5~48VDC	≤180 μ s	≤80 μ s	≤20mA	≤1V	500Hz	90/122/48	Input negative	767017
RES220VDCMO20L-8A	220VDC	5mA	1.7W	5~48VDC	≤180 μ s	≤80 μ s	≤20mA	≤1V	500Hz	90/122/48	Input negative	767007
RES110VACMO20L-8A	110VAC	5mA	1VA	5~48VDC	≤20ms	≤10ms	≤20mA	≤1V	10Hz	90/126/55	Input negative	767019
RES220VACMO20L-8A	220VAC	5mA	1.7VA	5~48VDC	≤20ms	≤10ms	≤20mA	≤1V	10Hz	90/126/55	Input negative	767018
RES110VDCMO50L-5A	110VDC	7mA	1W	5~48VDC	≤180 μ s	≤80 μ s	≤50mA	≤1V	500Hz	90/80/48	Input negative	767203
RES220VDCMO50L-5A	220VDC	5mA	1.7W	5~48VDC	≤180 μ s	≤80 μ s	≤50mA	≤1V	500Hz	90/80/48	Input negative	767202
RES5VDCMO50L-8A	5VDC	10mA	85mW	5~48VDC	≤180 μ s	≤80 μ s	≤50mA	≤1V	500Hz	90/93/48	Input negative	767211
RES12VDCMO50L-8A	12VDC	10mA	170mW	5~48VDC	≤180 μ s	≤80 μ s	≤50mA	≤1V	500Hz	90/93/48	Input negative	767210
RES24VDCMO50L-8A	24VDC	10mA	370mW	5~48VDC	≤180 μ s	≤80 μ s	≤50mA	≤1V	500Hz	90/93/48	Input negative	767206
RES110VDCMO50L-8A	110VDC	7mA	1W	5~48VDC	≤180 μ s	≤80 μ s	≤50mA	≤1V	500Hz	90/122/48	Input negative	767205
RES220VDCMO50L-8A	220VDC	5mA	1.7W	5~48VDC	≤180 μ s	≤80 μ s	≤50mA	≤1V	500Hz	90/122/48	Input negative	767204
RES110VACMO50L-8A	110VAC	5mA	1VA	5~48VDC	≤20ms	≤10ms	≤50mA	≤1V	10Hz	90/126/55	Input negative	767208
RES220VACMO50L-8A	220VAC	5mA	1.7VA	5~48VDC	≤20ms	≤10ms	≤50mA	≤1V	10Hz	90/126/55	Input negative	767207

Electric diagram



Overall dimension



RES□□□□MO□□L-□A

I/O Variable interfaces modules



Model implication

RES72 □□ □□ □□ □□ □□ □□

- ① Configuration: PCB board bases type
- ② Rated input voltage: F for flat cable connector SD for square cable connector
- ③ Interface digits
- ④ FZ for needle pattern socket; F for hole pattern socket
- ⑤ None for number code; B for AB code.
- ⑥ None for no indicator; LD for indicator.

General information

- Easy to be installed and disassembled
- RTR35 and RTR32 mounting type, screw-connected
- Flat and square connectors are available.
- Needle pattern and hole pattern sockets are available.
- With LED indicators for power status
- Be customized by customers’ requirements

Technical data

Rated data

Interface digits	9、10、15、16、20、25、26、34、37、40、50
Rated voltage/ Max.current	24VDC/1A
Operating temperature	-10℃~+55℃
Storage temperature	-25℃~+70℃
Pollution secerity	3

Product specifications

Ordering data(Flat cable connectors)

Type	Max. voltage/current	Interface digits	Indicator	Thickness/Width Height (mm)	Order No.
RES72F10BLD	24VDC/1A	10	Have	43/90/63	762566
RES72F16BLD	24VDC/1A	16	Have	65/90/63	762565
RES72F20BLD	24VDC/1A	20	Have	72/90/63	762564
RES72F26BLD	24VDC/1A	26	Have	85/90/63	762563
RES72F34BLD	24VDC/1A	34	Have	115/90/63	762562
RES72F40BLD	24VDC/1A	40	Have	133/90/63	762561
RES72F50BLD	24VDC/1A	50	Have	164/90/63	762560

Ordering data(Flat cable connectors)

Type	Max. voltage/current	Interface digits	Indicator	Thickness/Width Height (mm)	Order No.
RES72F10LD	24VDC/1A	10	Have	43/90/63	762531
RES72F16LD	24VDC/1A	16	Have	65/90/63	762533
RES72F20LD	24VDC/1A	20	Have	72/90/63	762534
RES72F26LD	24VDC/1A	26	Have	85/90/63	762535
RES72F34LD	24VDC/1A	34	Have	115/90/63	762536
RES72F40LD	24VDC/1A	40	Have	133/90/63	762537
RES72F50LD	24VDC/1A	50	Have	164/90/63	762538

Type	Max. voltage/current	Interface digits	Indicator	Thickness/Width Height (mm)	Order No.
RES72F10B	24VDC/1A	10	None	40/90/63	762554
RES72F16B	24VDC/1A	16	None	57/90/63	762553
RES72F20B	24VDC/1A	20	None	67/90/63	762552
RES72F26B	24VDC/1A	26	None	80/90/63	762550
RES72F34B	24VDC/1A	34	None	98/90/63	762549
RES72F40B	24VDC/1A	40	None	113/90/63	762548
RES72F50B	24VDC/1A	50	None	140/90/63	762547

Type	Max. voltage/current	Interface digits	Indicator	Thickness/Width Height (mm)	Order No.
RES72F10	24VDC/1A	10	None	40/90/63	762511
RES72F16	24VDC/1A	16	None	57/90/63	762513
RES72F20	24VDC/1A	20	None	67/90/63	762514
RES72F26	24VDC/1A	26	None	80/90/63	762515
RES72F34	24VDC/1A	34	None	98/90/63	762516
RES72F40	24VDC/1A	40	None	113/90/63	762517
RES72F50	24VDC/1A	50	None	140/90/63	762518

Ordering data(Square needle pattern connectors)

Type	Max. voltage/current	Interface digits	Indicator	Thickness/Width Height (mm)	Order No.
RES72SD9FZLD	24VDC/1A	9	Have	40/90/63	762229
RES72SD15FZLD	24VDC/1A	15	Have	67/90/63	762228
RES72SD25FZLD	24VDC/1A	25	Have	85/90/63	762227
RES72SD37FZLD	24VDC/1A	37	Have	127/90/63	762226

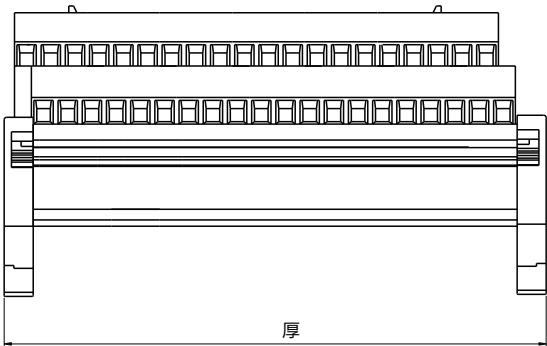
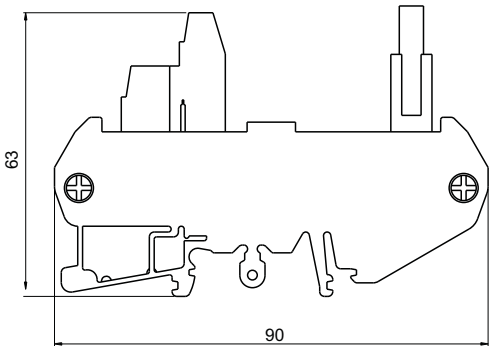
Ordering data(Square hole pattern connectors)

Type	Max. voltage/current	Interface digits	Indicator	Thickness/Width Height (mm)	Order No.
RES72SD9FLD	24VDC/1A	9	Have	40/90/63	762221
RES72SD15FLD	24VDC/1A	15	Have	67/90/63	762222
RES72SD25FLD	24VDC/1A	25	Have	85/90/63	762223
RES72SD37FLD	24VDC/1A	37	Have	127/90/63	762224

Type	Max. voltage/current	Interface digits	Indicator	Thickness/Width Height (mm)	Order No.
RES72SD9FZ	24VDC/1A	9	None	40/90/63	762012
RES72SD15FZ	24VDC/1A	15	None	57/90/63	762011
RES72SD25FZ	24VDC/1A	25	None	83/90/63	762010
RES72SD37FZ	24VDC/1A	37	None	110/90/63	762539
RES72SD50FZ	24VDC/1A	50	None	153/90/63	762009

Type	Max. voltage/current	Interface digits	Indicator	Thickness/Width Height (mm)	Order No.
RES72SD9F	24VDC/1A	9	None	40/90/63	762001
RES72SD15F	24VDC/1A	15	None	57/90/63	762002
RES72SD25F	24VDC/1A	25	None	83/90/63	762003
RES72SD37F	24VDC/1A	37	None	110/90/63	762004
RES72SD50F	24VDC/1A	50	None	153/90/63	762008
RES72SD62F	24VDC/1A	62	None	127/90/63	762013

Overall dimension



RRF series ultrathin relay



General information

- Ultra-thin, thickness 6.2mm
- Rational construction, wide range in application
- Components of relay can be replaced.
- Various specifications with indicators devices

Model implication

RRF □ □ □ Z □

① ② ③ ④ ⑤

- ① RRF series ultra-thin relays
- ② Rated input voltage: 5VDC 12VDC 24VDC 48VDC
110VDC 220VDC
- ③ Signal types: D for direct current; A for alternating current;
UC for directing and alternating current.
- ④ Contact form: Z for one set of switching
- ⑤ Load types: N for normal type; L for inductive load type;
S for signal type.

Technical data

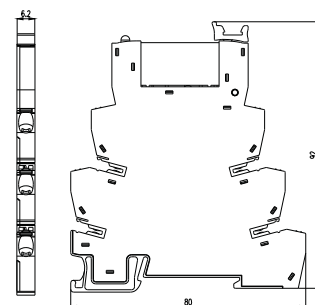
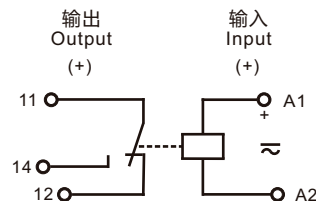
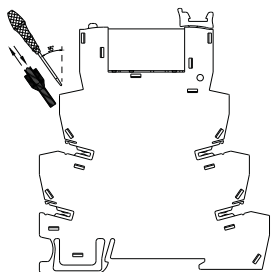
Input		Output	
Rated input voltage	DC:5V 12V 24V 48V 60V 110V 220V AC:110V 220V	Max. switching voltage	250VAC/30VDC
Operation voltage	DC≤75%,AC≤80%	Max. switching current (resistance load)	6A
Return voltage	DC≥5%,AC≥10%	Max. switching power	1500VA/180W
Operation time	≤8ms	Max. switching frequency	360 times/hour
Return time	≤4ms	Contact material	silver alloy
Dielectric strength test		Working condition	
Winding resistance/Contact	2000VAC/1min	Operating temperature	-10℃~+55℃
Contact terminal/Contact	1000VAC/1min	Storage temperature	-25℃~+70℃
Other			
Mechanical life/Electrical life	10 ⁵ /10 ⁵	Installation method	Mounting rail RTR35
Pollution secerity	3	Size(width/thickness/height)mm	80*6. 2*92

Product specifications

Type	Rated input voltage		Contact form			Max. switching current(A)	Size (width/thickness/height)mm	Order No.
	Voltage(V)	Current(mA)	Normally open	Normally closed	Transfer	Resistance load		
RRF05DZN	5VDC	26			1	6	80/6.2/92	769300
RRF12DZN	12VDC	13			1	6	80/6.2/92	769301
RRF24DZN	24VDC	10			1	6	80/6.2/92	769302
RRF48DZN	48VDC	8			1	6	80/6.2/92	769303
RRF110DZN	110VDC	5			1	6	80/6.2/92	769304
RRF220DZN	220VDC	5			1	6	80/6.2/92	769305
RRF110AZN	110VAC	6			1	6	80/6.2/92	769309
RRF220AZN	220VAC	6			1	6	80/6.2/92	769310

Accessory	Type	Order No.
Pluggable bridgware 	FQB500 RD	760011
	FQB500 BU	760012

Electric diagram



Overall dimension

RRF SERIES ULTRATHIN RELAY TERMINAL BLOCKS WITH RELAY COUPLERS

Terminal blocks with relay couplers



General information

- Steel wire structure with large contact pressure and self-locking
- Easy to be installed and dissembled
- RTR35 and RTR32 mounting type
- Ultra-thin, thickness 6mm
- With LED indicators for power status
- Max. switching current at the load end is 12A.
- Used in parallel by insertion bridge
- Used together with end covers to prevent dust and humidity

Model implication

RET □□□V□□□ R □ □□□

① ② ③ ④ ⑤ ⑥ ⑦

- ① Configuration: terminal block type
- ② Input voltage grade: 5V 12V 24V 48V 60V
110V 220V
- ③ Voltage types: DC for direct current; AC for alternating current;
UC for directing and alternating current.
- ④ None for 4-pole terminal studs per level;
5 for 5-pole terminal studs per level;
- ⑤ R for relay.
- ⑥ None for normal type. T for special load type.
- ⑦ Contact forms: NC for normally-closed;
NO for normally-open;
PDT for changeover.

Technical data

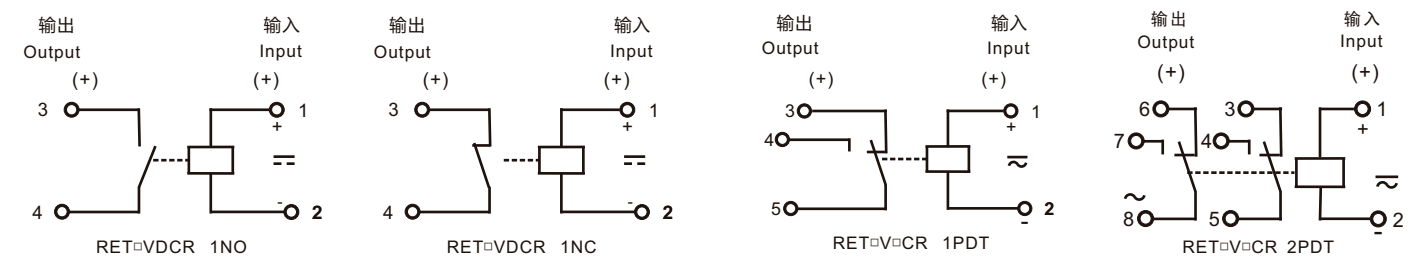
Input		Output	
Rated input voltage	5VDC、12VDC、24VDC、48VDC、60VDC、110VDC 220VDC、24VAC、48VAC、110VAC、220VAC	Max. switching voltage	250VAC/30VDC
		Max. switching current (resistance load)	3A、6A、12A
Operation voltage	DC≤75%,AC≤80%	Max. switching power(resistance load)	750VA、1500VA、3000VA/90W、180W、360W
Return voltage	DC≥5%,AC≥10%	Contact material	silver alloy
Operation time	≤10ms(DC)/15ms(AC)	Tighten torque range	0.4~0.6Nm
Return time	≤5ms(DC)/10ms(AC)		
Dielectric strength test		Working condition	
Winding resistance/Contact	2000VAC/1min	Operating temperature	-10℃~+55℃
Contact terminal/Contact	1000VAC/1min	Storage temperature	-25℃~+70℃
Other			
Mechanical life	10 ⁷	Pollution secerity	3
Electrical life	10 ⁴	Installation method	Mounting rail RTR32/35

Accessory	Type	Order No.	Type	Order No.	Accessory	Type	Color	Order No.
	QB2-2.5BK	810212	QB2-4BK	810222	End cover (Thickness:1.5mm)	REP4 BG	Beige	769006
	QB3-2.5BK	810213	QB3-4BK	810223		REP5	Beige	769007
	QB4-2.5BK	810214	QB4-4BK	810224				
	QB10-2.5BK	810220	QB10-4BK	810230				
	Type suffixes NC,NO available		Type suffix PDT available					

Note: 1. When products are connected by insertion bridges, they can not be detached by end covers.
2. Do not connect products by insertion bridges, when their thickness is 14.5mm.

Product specifications

Electric diagram

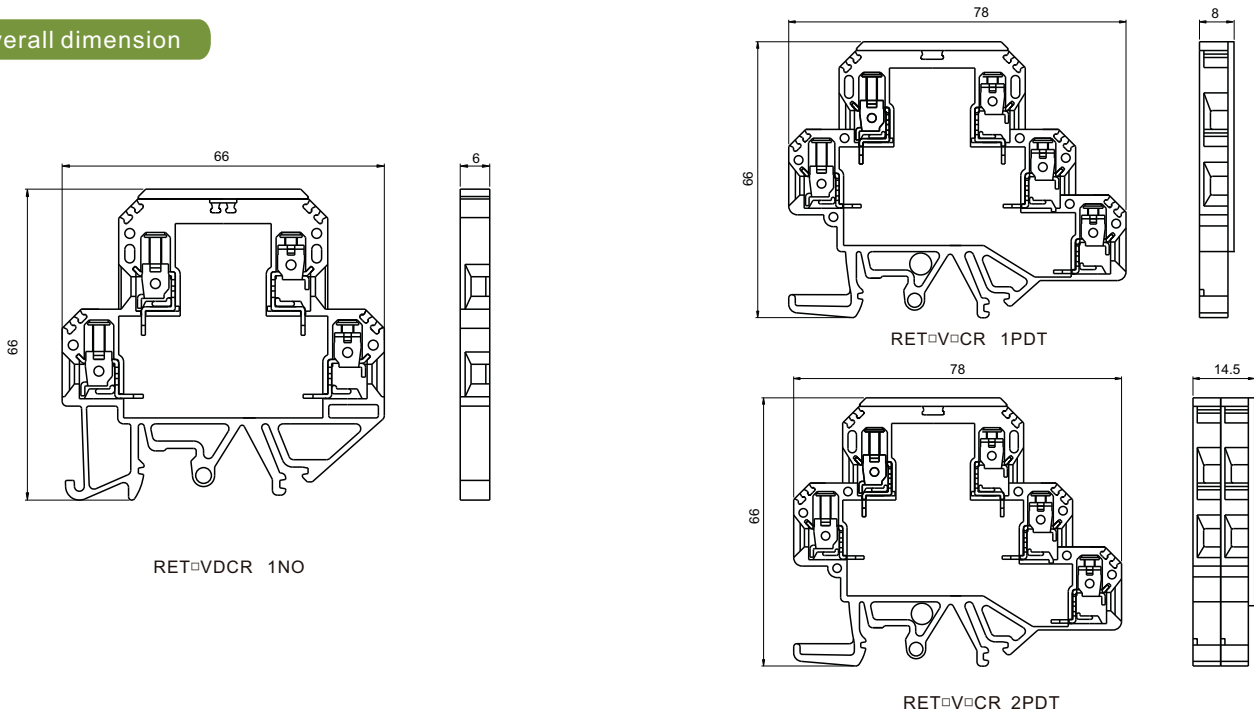


Ordering data

Type	Rated input voltage		Contact form			Max. switching current(A) Resistance load	Size (width/thickness/height)mm	Order No.
	Voltage(V)	Current(mA)	Normally open	Normally closed	Transfer			
RET5VDCR 1NO	5	26	1			3	66/6/66 (without end cover)	769041
RET12VDCR 1NO	12	13	1			3	66/6/66 (without end cover)	769040
RET24VDCR 1NO	24	10	1			3	66/6/66 (without end cover)	769039
RET24VDCR 1NO	24	9	1			6	66/6/66 (without end cover)	769032
RET110VDCR 1NO	110	6	1			3	66/6/66 (without end cover)	769046
RET5VDCR 1NC	5	26		1		6	66/6/66 (without end cover)	769082
RET12VDCR 1NC	12	13		1		6	66/6/66 (without end cover)	769081
RET24VDCR 1NC	24	10		1		6	66/6/66 (without end cover)	769014
RET110VDCR 1NC	110	6		1		6	66/6/66 (without end cover)	769084
RET12VDC5R 1PDT	12	16			1	6	66/8/78 (with end cover)	769043
RET24VDC5R 1PDT	24	9			1	6	66/8/78 (with end cover)	769042
RET48VDC5R 1PDT	48	7			1	6	66/8/78 (with end cover)	769044
RET110VDC5R 1PDT	110	5			1	12	66/14.5/78 (with end cover)	769048
RET110VDC5R 2PDT	110	5			2	6	66/14.5/78 (with end cover)	769050
RET24VUC5R 1PDT	24	23			1	12	66/14.5/78 (with end cover)	769022
RET110VACR 1NC	110	6		1		3	66/6/66 (without end cover)	769085
RET110VUC5R 1PDT	110	5			1	12	66/14.5/78 (with end cover)	769049
RET110VACR 1NO	110	6	1			3	66/6/66 (without end cover)	769047
RET220VACR 1NO	220	6	1			3	66/6/66 (without end cover)	769015
RET24VUC5R 2PDT	24	23			2	6	66/14.5/78 (with end cover)	769029
RET220VUC5R 2PDT	220	5			2	6	66/14.5/78 (with end cover)	769030
RET48VUC5R 1PDT	48	7			1	12	66/14.5/78 (with end cover)	769023
RET220VUC5R 1PDT	220	5			1	12	66/14.5/78 (with end cover)	769021
RET110VUC5R 2PDT	110	5			2	6	66/14.5/78 (with end cover)	769031

Note: 1. DC input in black color, AC input in red color, UC input in blue color.
2. If inductive load are needed, please contact technicians; while, if other specifications are needed, customized products can be provided.

Overall dimension



Relay coupler



General information

- Easy to be installed and dissembled
- RTR35 and RTR32 mounting type
- Max. switching current at the load end is 16A.
- Various contact forms are available.
- With LED indicators for power status

Model implication

RES72 R - □
① ② ③
① Configuration: PCB board type
② R for relay.
③ Serial number of design

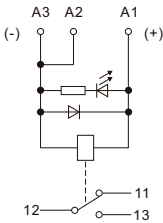
Technical data

Input		Output	
Rated input voltage	5VDC、12VDC、24VDC、48VDC、60VDC、110VDC 220VDC、24VAC、48VAC、110VAC、220VAC	Max. switching voltage	250VAC/30VDC
Operation voltage	DC≤75%,AC≤80%	Max. switching current (resistance load)	8A、10A、16A
Return voltage	DC≥5%,AC≥10%	Max. switching power(resistance load)	2000VA、2500VA、4000VA
Operation time	≤10ms(DC)/15ms(AC)	Contact material	silver alloy
Return time	≤5ms(DC)/10ms(AC)		

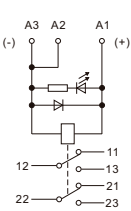
Dielectric strength test		Working condition	
Winding resistance/Contact	2000VAC/1min	Operating temperature	-10℃~+55℃
Contact terminal/Contact	1000VAC/1min	Storage temperature	-25℃~+70℃
Other		Pollution secerity	3
Mechanical life	10 ⁷	Installation method	Mounting rail RTR32/35
Electrical life	10 ⁵		
Tighten torque range	0.4~0.6Nm		

Product specifications

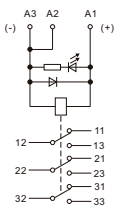
Electric diagram



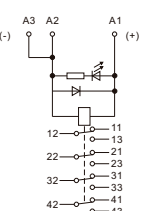
One switching



Two switching



Three switching



Four switching

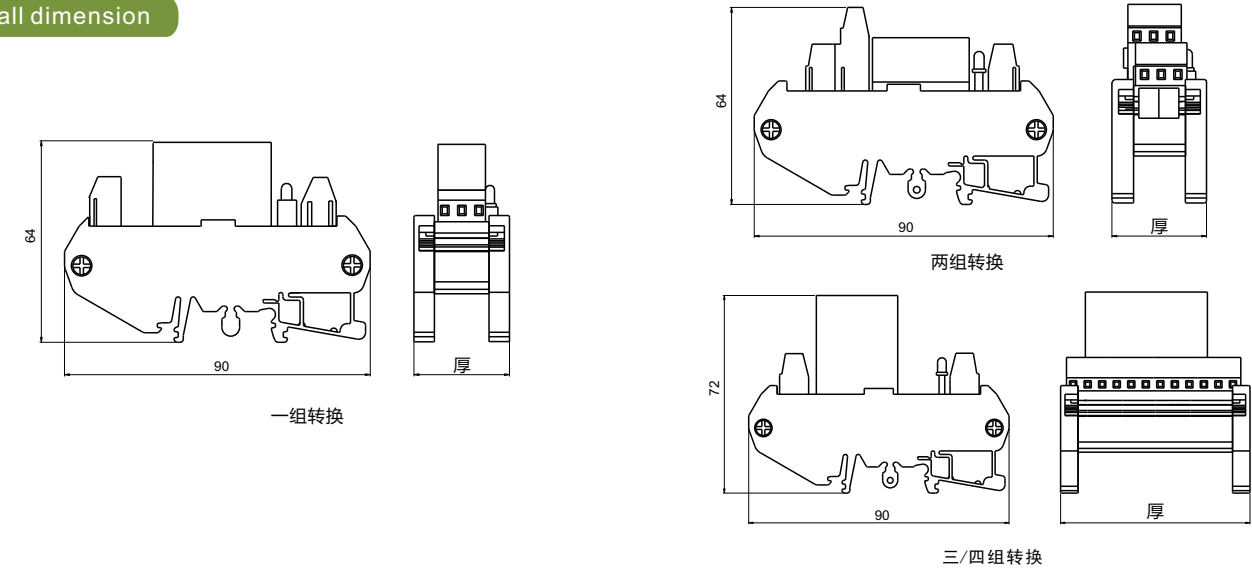
Product specifications

Ordering data

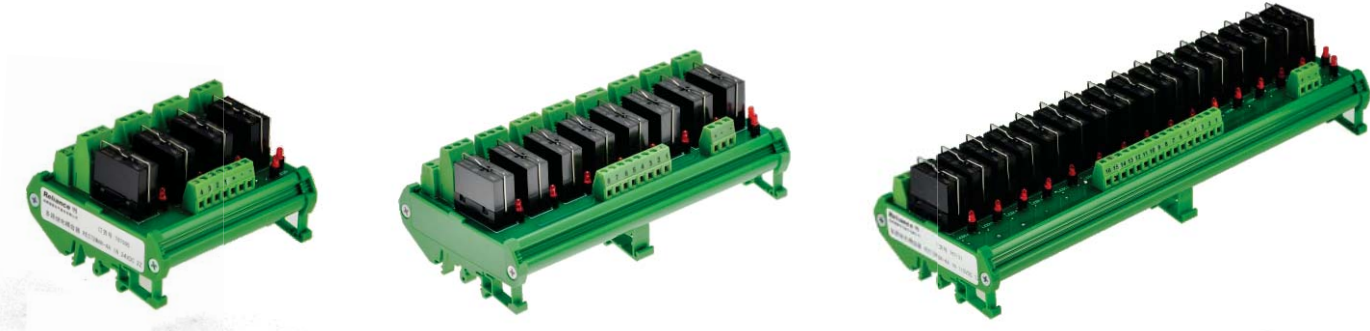
Type	Rated input voltage		Contact form			Max. switching current(A)	Size (width/thickness/height) mm	Order No.
	Voltage(V)	Current(mA)	Normally open	Normally closed	Transfer	Resistance load		
RES72R-52	12	35			1	16	90/26/64	767107
RES72R-3	24	20			1	16	90/26/64	767059
RES72R-53	48	10			1	16	90/26/64	767108
RES72R-16	110	5			1	16	90/26/64	767051
RES72R-12	220	5			1	16	90/26/64	767047
RES72R-54	12	35			2	8	90/27/64	767109
RES72R-4	24	20			2	8	90/27/64	767057
RES72R-55	48	10			2	8	90/27/64	767110
RES72R-18	110	5			2	8	90/27/64	767053
RES72R-13	220	5			2	8	90/29/64	767049
RES72R-29	24	20			3	10	90/53/72	767086
RES72R-37	48	10			3	10	90/53/72	767082
RES72R-26	110	5			3	10	90/53/72	767072
RES72R-32	220	5			3	10	90/53/72	767078
RES72R-34	24	20			4	10	90/68/72	767080
RES72R-33	48	10			4	10	90/68/72	767079
RES72R-30	110	5			4	10	90/68/72	767076
RES72R-31	220	5			4	10	90/68/72	767075
RES72R-17	110	5			1	16	90/26/64	767052
RES72R-15	220	5			1	16	90/26/64	767048
RES72R-19	110	5			2	8	90/29/64	767054
RES72R-20	220	5			2	8	90/29/64	767055
RES72R-27	110	5			3	10	90/53/72	767085
RES72R-28	220	5			3	10	90/53/72	767074
RES72R-36	110	5			4	10	90/68/72	767081
RES72R-22	220	5			4	10	90/68/72	767067

Note: 1. DC input in black color, AC input in red color, UC input in blue color.
2. If inductive load are needed, please contact technicians; while, if other specifications are needed, customized products can be provided.

Overall dimension



Multicircuit relay modular



General information

- Easy to be installed and dissembled
- RTR35 and RTR32 mounting type
- Max. switching current at the load end is 16A.
- Various contact forms are available.
- Circuit numbers 4/8/16 are available.
- With LED indicators for power status

Model implication

- RES72 M R - □ □
- ① ② ③ ④ ⑤
- ① Configuration: PCB board type
 - ② Circuit numbers: M4 for 4, M8 for 8, M16 for 16.
 - ③ R for relay.
 - ④ Serial number of design
 - ⑤ None: one shared terminal with AC or DC input
A for DC input, negative;
B for DC input, positive.

Technical data

Input

Rated input voltage	12VDC、24VDC、48VDC、60VDC、110VDC 220VDC、24VAC、48VAC、110VAC、220VAC
Operation voltage	DC≤75%,AC≤80%
Return voltage	DC≥5%,AC≥10%
Operation time	≤10ms(DC)/15ms(AC)
Return time	≤5ms(DC)/10ms(AC)

Output

Max. switching voltage	250VAC/30VDC
Max. switching current (resistance load)	8A、10A
Max. switching power (resistance load)	2000VA、2500VA
Contact material	silver alloy

Dielectric strength test

Winding resistance/Contact	2000VAC/1min
Contact terminal/Contact	1000VAC/1min

Other

Mechanical life	10 ⁷
Electrical life	10 ⁵

Working condition

Operating temperature	-10℃~+55℃
Storage temperature	-25℃~+70℃
Pollution secerity	3

Other

Installation method	Mounting rail RTR32/35
Tighten torque range	0.4~0.6Nm

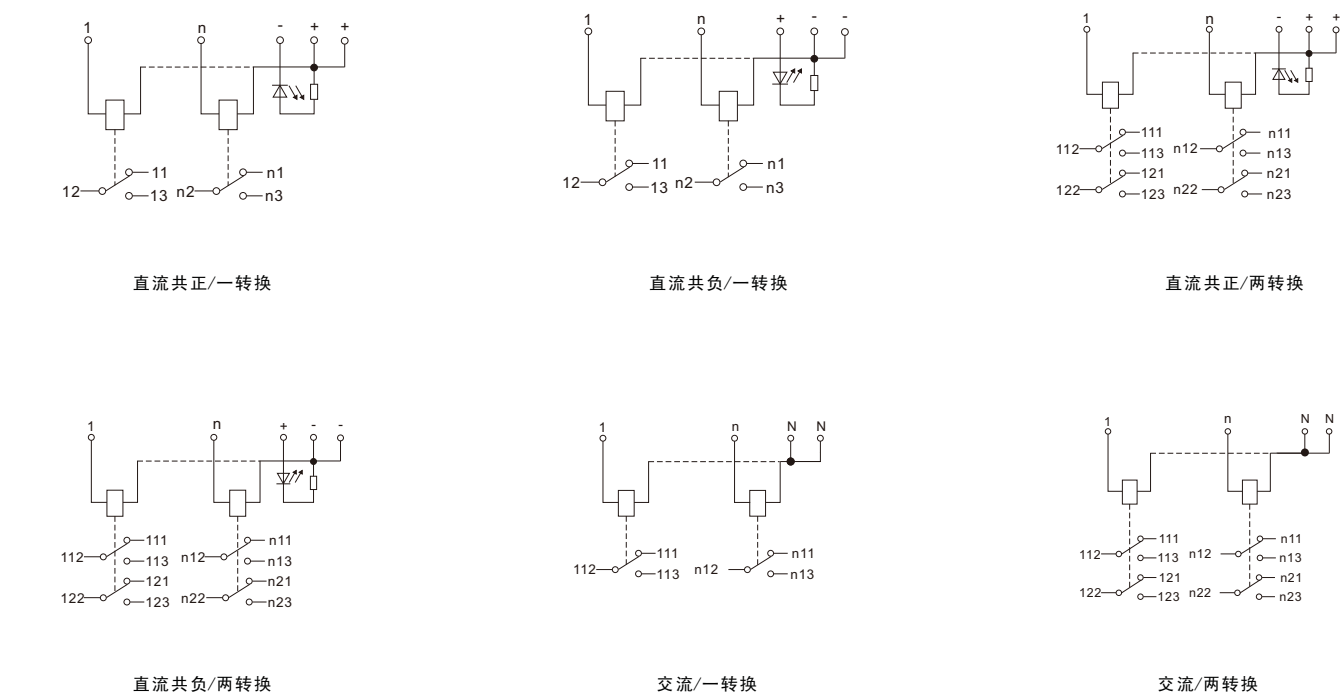
Product specifications

Ordering data

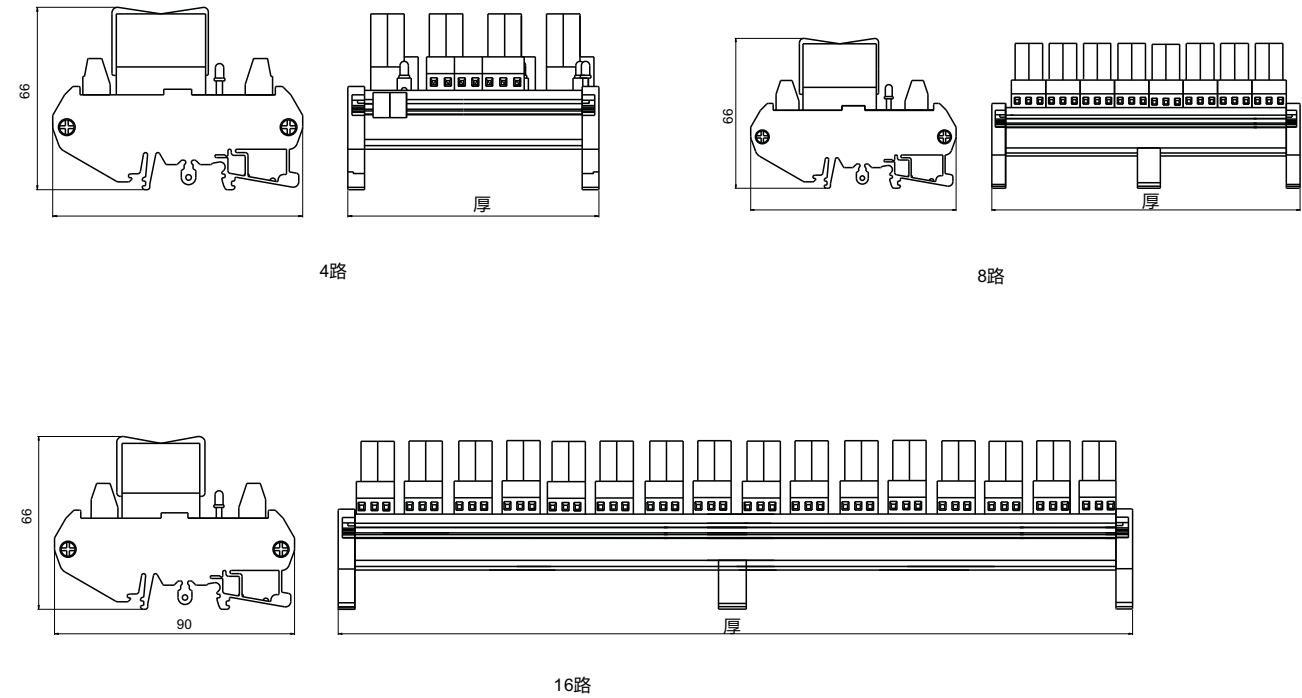
Type	Rated input voltage		Contact form			Max. switching current(A)	Circuit numbers	Size (width/thickness/height) mm	Order No.
	Voltage(V)	Current(mA)	Normally open	Normally closed	Transfer				
RES72M4R-1A	24	20			1	10	4	90/70/66	767043
RES72M4R-5A	48	10			1	10	4	90/70/66	767111
RES72M4R-6A	110	5			1	10	4	90/70/66	767113
RES72M4R-1B	24	20			1	10	4	90/70/66	767030
RES72M4R-5B	48	10			1	10	4	90/70/66	767112
RES72M4R-6B	110	5			1	10	4	90/70/66	767114
RES72M4R-4A	24	20			2	8	4	90/99/66	767095
RES72M4R-8A	48	10			2	8	4	90/99/66	767117
RES72M4R-9A	110	5			2	8	4	90/99/66	767119
RES72M4R-4B	24	20			2	8	4	90/99/66	767116
RES72M4R-8B	48	10			2	8	4	90/99/66	767118
RES72M4R-9B	110	5			2	8	4	90/99/66	767120
RES72M8R-1A	24	20			1	10	8	90/132/66	767042
RES72M8R-2A	48	10			1	10	8	90/132/66	767121
RES72M8R-6A	110	5			1	10	8	90/132/66	767123
RES72M8R-1B	24	20			1	10	8	90/132/66	767031
RES72M8R-2B	48	10			1	10	8	90/132/66	767122
RES72M8R-6B	110	5			1	10	8	90/132/66	767124
RES72M8R-4A	24	20			2	8	8	90/194/66	767041
RES72M8R-7A	48	10			2	8	8	90/194/66	767125
RES72M8R-8A	110	5			2	8	8	90/194/66	767127
RES72M8R-4B	24	20			2	8	8	90/194/66	767029
RES72M8R-7B	48	10			2	8	8	90/194/66	767126
RES72M8R-8B	110	5			2	8	8	90/194/66	767128
RES72M16R-1A	24	20			1	10	16	90/265/66	767044
RES72M16R-3A	48	10			1	10	16	90/265/66	767129
RES72M16R-4A	110	5			1	10	16	90/265/66	767131
RES72M16R-1B	24	20			1	10	16	90/265/66	767033
RES72M16R-3B	48	10			1	10	16	90/265/66	767130
RES72M16R-4B	110	5			1	10	16	90/265/66	767132
RES72M16R-6A	24	20			2	8	16	90/384/66	767134
RES72M16R-7A	48	10			2	8	16	90/384/66	767136
RES72M16R-8A	110	5			2	8	16	90/384/66	767138
RES72M16R-6B	24	20			2	8	16	90/384/66	767135
RES72M16R-7B	48	10			2	8	16	90/384/66	767137
RES72M16R-8B	110	5			2	8	16	90/384/66	767139
RES72M4R-3	220	5			2	10	4	90/128/66	767035
RES72M8R-5	220	5			1	10	8	90/159/66	767032
RES72M8R-3	220	5			2	10	8	90/159/66	767034
RES72M16R-5	220	5			1	10	16	90/305/66	767133
RES72M16R-9	220	5			2	8	16	90/320/66	767140

Note: 1. DC input in black color, AC input in red color, UC input in blue color.
2. If inductive load are needed, please contact technicians; while, if other specifications are needed, customized products can be provided.

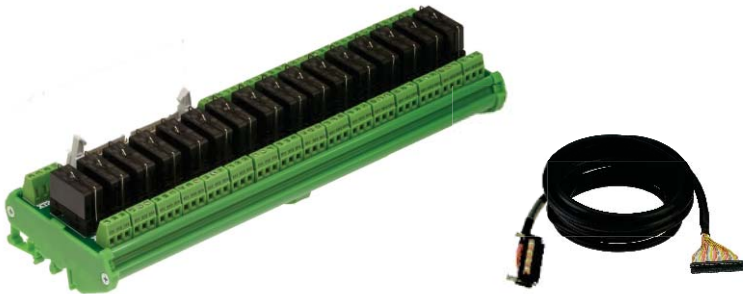
Electric diagram



Overall dimension



Relay module



Technical data

Input		Output	
Rated input voltage	24VDC	Max. switching voltage	250VAC/30VDC
Operation voltage	DC≤75%,AC≤80%	Max. switching current (resistance load)	8A、10A
Return voltage	DC≥5%,AC≥10%	Max. switching power (resistance load)	2000VA、2500VA/240W、300W
Operation time	≤15ms	Contact material	silver alloy
Return time	≤8ms		

Dielectric strength test		Working condition	
Winding resistance/Contact	2000VAC/1min	Operating temperature	-10℃~+55℃
Contact terminal/Contact	1000VAC/1min	Storage temperature	-25℃~+70℃

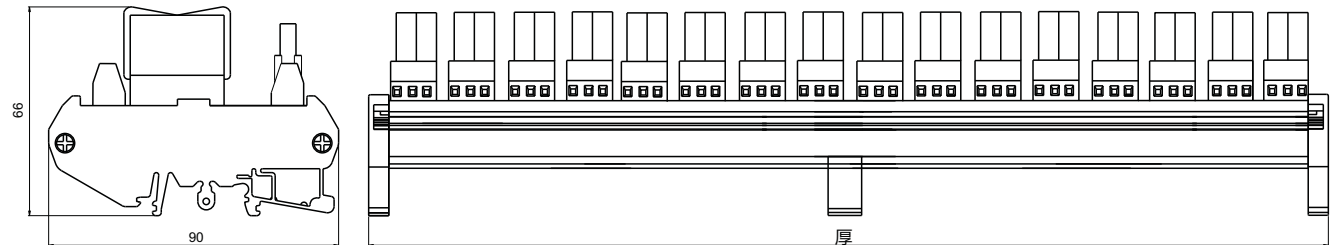
Other			
Mechanical life	10 ⁷	Pollution secerity	3
Electrical life	10 ⁵	Installation method	Mounting rail RTR32/35

Product specifications

Ordering data

Type	Rated input voltage	Contact form			Max. switching current(A) Resistance load	Circuit numbers	Size (width/thickness/height) mm	Order No.
		Normally open	Normally closed	Transfer				
RES-802D-16/1Z	24			1	10	16	90/282/66	762613
RES-OI-18/1Z	24			1	10	18	90/286/66	762615
RES-OI-18/2Z	24			2	8	18	90/286/66	762616
RES-OI-12/2Z	24			2	8	12	90/293/66	762611
RES-802D-16/2Z	24			2	8	16	90/282/66	762614

Overall dimension



General information

- Easy to be installed and disassembled
- RTR35 and RTR32 mounting type
- Stable and reliable connection
- Compatible application for CNC systems of Siemens, Ferrari and Mitsubishi.
- With LED indicators for power status

Model implication

- RES - ① ② - ③ ④
- ① Configuration: PCB board bases type
 - ② Matching system: OI for Ferrari OI system; 802d for Siemens 802d system.
 - ③ Circuit numbers of relay: 8/12/16/18
 - ④ Contact form: Z for transfer contact

REBT series timer relay



General information

- Easy to be installed and disassembled
- RTR35 and RTR32 mounting type
- Using integrated circuit control with high precision of time delay
- Complete close structure, good vibration resistance, high flame retardant grade, highly anti-interference ability.
- With LED indicators for power status and operation status
- Dial section switch on panel, to adjust setting time segmentedly

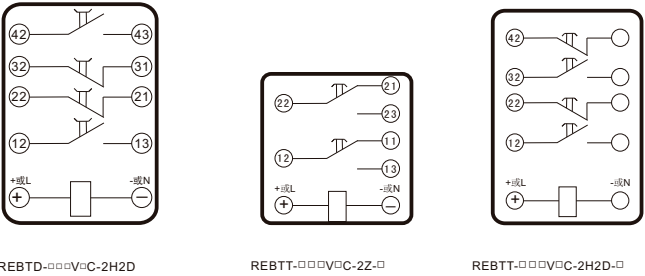
Technical data

Input		Output	
Rated input voltage	24VDC、110VDC、220VDC、110VAC、220VAC	Max. switching voltage (resistance load)	250VAC
		Max. switching current (resistance load)	5A

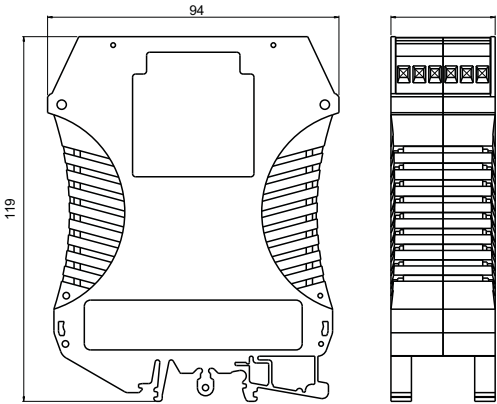
Features		Other	
Precision grade	Average error of set values for Max. delay is less than ±5%+300ms	Operating temperature	-10~+55℃
Power supply voltage* fluctuation error	When power voltage fluctuates between 90%~110% of rated voltage, error of delay is ±0.5%.	Storage temperature	-25~+70℃
Temperature error	When ambient air temperature fluctuates between -10℃~+55℃, error of delay is ±0.5%.	Installation method	Mounting rail RTR32/35
Insulation resistance	≥100MΩ	Size(width/thickness/height)	94/34/119mm
Power frequency withstand voltage	Between the conductive and none-conductive parts of relay: AC 2000V/1min Between loop circuit and contact circuit: AC 1500V/1min		
Rated power consumption	≤5W/5VA		
Electrical life	10 ⁵		

Product specifications

Electric diagram



Overall dimension



Ordering data

Type	Time setting range(s)	DC rated voltage(V)	AC rated voltage(V)	Order No.
REBTD-220VDC-2H2D	0.06~0.6 0.25~2.5 2~20 16~160	220		767453
REBTD-110VDC-2H2D		110		767457
REBTD-24VDC-2H2D		24		
REBTD-220VAC-2H2D			220	767458
REBTD-110VAC-2H2D			110	767460
REBTT-220VDC-2Z-A	0.3~0.5 0.3~5 0.3~30 0.3~180	220		767401
REBTT-110VDC-2Z-A		110		767408
REBTT-24VDC-2Z-A		24		767415
REBTT-220VDC-2H2D-A		220		767448
REBTT-110VDC-2H2D-A		110		767501
REBTT-24VDC-2H2D-A		24		
REBTT-220VAC-2Z-A			220	767422
REBTT-110VAC-2Z-A			110	767429
REBTT-220VAC-2H2D-A			220	767436
REBTT-110VAC-2H2D-A			110	767438
REBTT-220VDC-2Z-B		220		767402
REBTT-110VDC-2Z-B		110		767409
REBTT-24VDC-2Z-B		24		767416
REBTT-220VDC-2H2D-B		220		767449
REBTT-110VDC-2H2D-B		110		767502
REBTT-24VDC-2H2D-B		24		
REBTT-220VAC-2Z-B	0.3~1 0.3~10 0.3~60 0.3~360		220	767423
REBTT-110VAC-2Z-B			110	767430
REBTT-220VAC-2H2D-B			220	767437
REBTT-110VAC-2H2D-B			110	767439
REBTT-220VDC-2Z-C		220		767403
REBTT-110VDC-2Z-C	0.5~5 0.5~50 0.5~300 0.5~1800	110		
REBTT-24VDC-2Z-C		24		
REBTT-220VDC-2H2D-C		220		
REBTT-110VDC-2H2D-C		110		767503
REBTT-24VDC-2H2D-C		24		
REBTT-220VAC-2Z-C			220	767424
REBTT-110VAC-2Z-C			110	
REBTT-220VAC-2H2D-C			220	
REBTT-110VAC-2H2D-C			110	

REBM series voltage monitoring relay



General information

- Easy to be installed and disassembled
- RTR35 and RTR32 mounting type
- Complete close structure, good vibration resistance, high flame retardant grade, highly anti-interference ability.
- Monitoring voltage are adjustable between 10VAC-460VAC.
- With LED indicators for power status and operation status
- Adjustable delay time for delay return voltage and undervoltage(overvoltage)

Model implication

- REBM□V □ - □□□VAC - □□- □□
- ① ② ③ ④ ⑤
- ① Voltage monitoring types: REBMUV for undervoltage REBMOV for overvoltage
 - ② S for single-phase; T for three-phase;
 - ③ Rated input voltage: 58VAC 100VAC 220VAC 460VAC
 - ④ Contact forms: H for normally open D for normally closed Z for transfer
 - ⑤ None for passive type; PL for active type(digital display);

Technical data

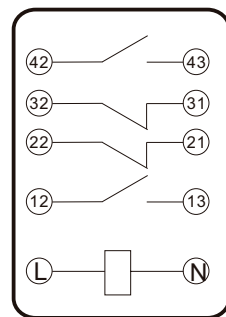
Input	
Rated input voltage	58VAC、100VAC、220VAC、460VAC
Features	
Input voltage range	Passive undervoltage type:70~130%U(Ufor rated input voltage) Active type:10~110%U(Ufor rated input voltage)
Relay calibration error	±6%
Temperature error	≤0.03%/℃
Insulation resistance	≥100MΩ
Power frequency withstand voltage	Between the conductive and none-conductive parts of relay: AC 2000V/1min Between loop circuit and contact circuit: AC 1000V/1min
Voltage setting value	Setting value Y* Rated voltage U Passive undervoltage type: adjustable setting value Y:0.75~1.05; adjustable active type: 0.1~1.1)
Delay voltage	Passive undervoltage: (1+delay value Yh%)* setting voltage (adjustable delay value Yh:2~20) ; Active undervoltage type: 0.95*setting voltage; Active overvoltage type: 1.05*setting voltage;
Delay time	0.1~10s±2s
Electrical life	10 ⁵
Output	
Max. switching voltage (resistance load)	250VAC
Max. switching current (resistance load)	5A
Working condition	
Operating temperature: -10~+55℃	Storage temperature: -25~+70℃
Size	
Installation method	Mounting rail RTR32/35
Width/thickness/high(mm)	Referring to the overall dimension

Product specifications

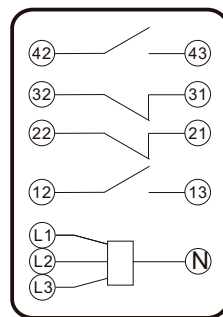
Ordering data

Type	Setting voltage range(V)	Delay value	AC rated voltage(V)	Order No.
REBMUVT-220VAC-2H2D	165~231	1.02~1.2 (Relative to setting voltage)	220	
REBMUVS-220VAC-2H2D			220	
REBMUVT-100VAC-2H2D	75~105		100	
REBMUVS-100VAC-2H2D			100	
REBMUVT-58VAC-2H2D	43.5~60.9		58	767309
REBMUVS-58VAC-2H2D			58	767340
REBMUVT-100VAC-2Z-PL	10~110	0.95 (Relative to setting voltage)	100	767349
REBMUVS-100VAC-2Z-PL			100	767348
REBMUVT-460VAC-2Z-PL	10~460		460	
REBMUVS-460VAC-2Z-PL			460	
REBMOV T-100VAC-2Z-PL	10~110	1.05 (Relative to setting voltage)	100	
REBMOV S-100VAC-2Z-PL			100	767366
REBMOV T-460VAC-2Z-PL	10~460		460	
REBMOV S-460VAC-2Z-PL			460	

Electric diagram

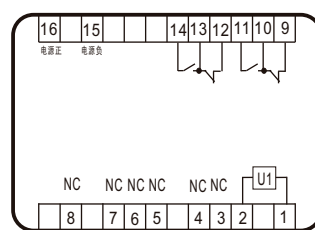


REBMUVS-□□□VAC-2H2D



REBMUVT-□□□VAC-2H2D

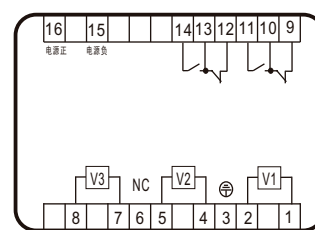
Passive type



REBMUVS-□□□VAC-2Z-PL

15、16: Auxiliary power supply,
Range: 100~240VAC/DC;

9、10、11、12、13、14: Relay output contact;
1、2: Monitoring voltage;



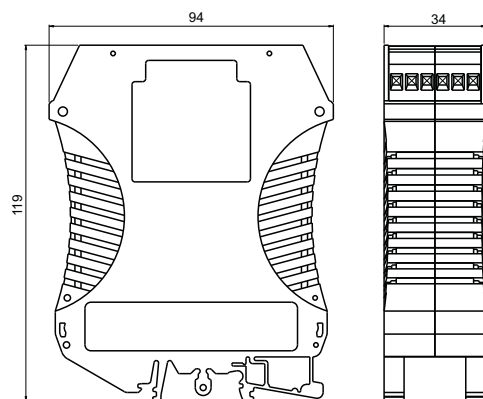
REBMUVT-□□□VAC-2Z-PL

15、16: Auxiliary power supply,
Range: 100~240VAC/DC

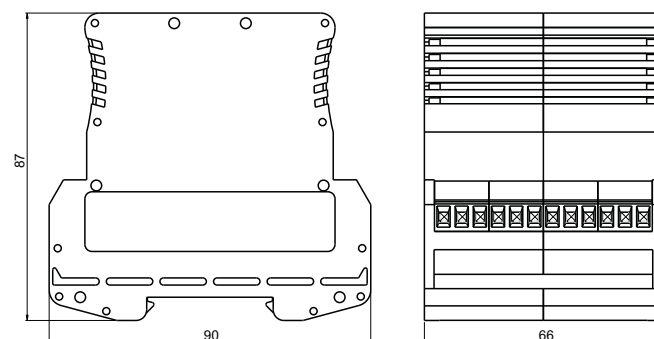
3: shared;
9、10、11、12、13、14: Relay output contact;
1、2、4、5、7、8: Monitoring voltage;

Active type

Overall dimension



Passive type



Active type

Signal isolators



General Information

Analog signals in industry environment are susceptible to be disturbed in transmission process. Isolator can precisely convert analog signals, reliably achieve electrical isolation and provide power adaption, which guarantees signal transmission in various kinds of control loop. Currently, REB1IS series isolator consists of passive isolator, active isolator, distribution isolator and power supply isolator, etc, which have been reliably applied for years in many industries, such as power, metallurgical, railway, petroleum, chemical, food, storage, communication, etc. And they have received widespread approval from users. REB1IS series isolator has following features.

- ◆ Two types of wide-range power supply: 15-60VAC/DC and 100-240VAC/DC
- ◆ Full-closed structure with highly shock resistance and high flame retardant rating
- ◆ It is easy to be installed and dissembled for din rail 32mm and 35mm.
- ◆ Damp proofing, salt-mist-resistant and fungus-resistant
- ◆ Output terminal has short-circuit protection
- ◆ Special circuit shielding technology ensures strong anti-interference capability.
- ◆ Low power consumption, low temperature drift and short response time
- ◆ conform to RoHS

Model Implication

REB1IS — □ □ □
① ② ③ ④

- | | | | |
|---------------------------|-------------------------|---------------------------|---------------------------------------|
| ① Isolator series | | | |
| ② Input signals : | 1、0~20mADC | 2、4~20mADC | 3、0~10VDC |
| | 4、0~5VDC | 8、0~300VDC | 9、0~75mVDC |
| ③ Output signals: | 1、0~20mADC | 2、4~20mADC | 3、DC 0~10V |
| | 4、0~5VDC | 5、4~20mADC (two channels) | |
| ④ Auxiliary power supply: | 0、No extra power supply | 2、15~60VAC/DC | 3、24VDC (with distribution) |
| | 4、100~240VAC/DC | 5、24VDC | 6、24VDC (output circuit power supply) |

Technical Data

Input	
Nominal value	Voltage: 0~75mV、0~5V、0~10V、0~300V ; Current: 0~20mA、4~20mA
Continuous power input	120% Nominal value
Impedance	Current input terminal $\leq 100\Omega$, Voltage input terminal $\geq 100k\Omega$

Feature

Accuracy grade	±0.2%*		
Temperature drift	≤250ppm/°C.F.S		
Insulation resistance	≥100MΩ(500VDC·1min)		
Power frequency withstanding voltage	2kV/50Hz·1min(input-output)	2kV/50Hz·1min(input-power supply)	2kV/50Hz·1min(output-power supply)
EMC standards	GB/T17626 IEC61326		

* : Passive isolator accuracy: 0.5% , output load ≤500Ω

Output

Analog output	4~20mA、0~20mA、0~5V、0~10V		
Load	Current output: ≤750Ω ; Voltage output: ≥2kΩ		
Output protection	Short circuit protection		
Max. output current	25mA		

Power supply

Rated voltage	24VDC	15~60VAC/DC	100~240VAC/DC
Voltage range	24VDC±20%	15~60VAC/DC	85~265VAC/DC
Power consumption	≤3W	≤3VA/3W	≤5VA/5W

Condition

Operating temperature	-10℃~+55℃
Storage and transportation temperature	-25℃~+70℃
Relative humidity	5%~90%(no condensation and ice inside shell) ; When tempreture reaches +40℃~55℃ , relative humidity of air is no more than 50%. High relative humidity is allowed in low temperature.
Atmospheric pressure	80 kPa~110 kPa , when altitude ≤2000m.

Overall dimension

Installation mode	RTR35/RTR32 Din rail installation
Size(width/ thickness/ height)	94/24/119mm(Single output)、 94/34/119mm(Double output)
Weight	about 150g
Tightening torque	0.8Nm

Product Specifications

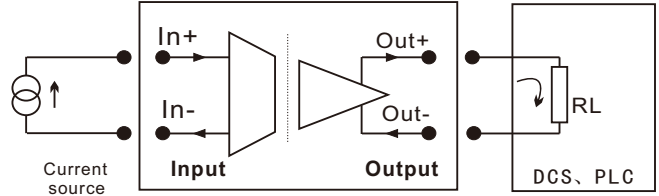
1、Passive isolator

1.1、One input and one output

Ordering data

Type	Input signal	Output	Auxiliary power supply	Ordering No.
REB1IS-220	4~20mADC	4~20mADC	No need	763047
REB1IS-110	0~20mADC	0~20mADC	No need	763032

Connecting mode

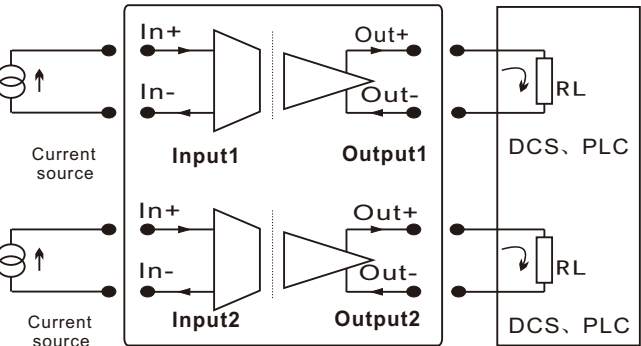


1.2、Two input and two output

Ordering data

Type	Input signal	Output	Auxiliary power supply	Ordering No.
REB1IS-550	Two channel 4~20mADC	Two channel 4~20mADC	No need	763076

Connecting mode



2、Active isolator

2.1、Independent power supply, 3-port isolator
signal one input one output

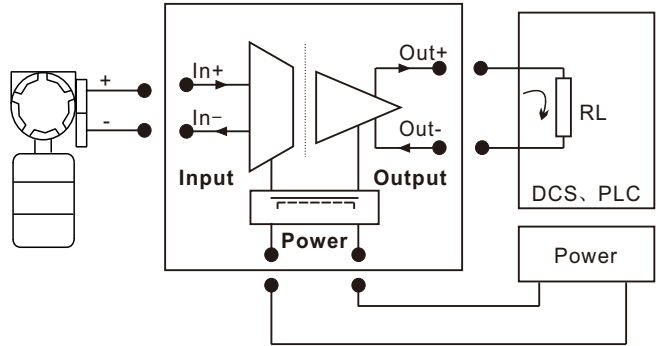
Ordering data

Type	Input signal	Output	Auxiliary power supply	Ordering No.
REB1IS-222	4~20mADC	4~20mADC	15~60VDC	763004
REB1IS-232	4~20mADC	0~10VDC	15~60VDC	763068
REB1IS-242	4~20mADC	0~5VDC	15~60VDC	763070
REB1IS-212	4~20mADC	0~20mADC	15~60VDC	763066
REB1IS-322	0~10VDC	4~20mADC	15~60VDC	763010
REB1IS-332	0~10VDC	0~10VDC	15~60VDC	763014
REB1IS-312	0~10VDC	0~20mADC	15~60VDC	763012
REB1IS-432	0~5VDC	0~10VDC	15~60VDC	763018
REB1IS-422	0~5VDC	4~20mADC	15~60VDC	763022
REB1IS-442	0~5VDC	0~5VDC	15~60VDC	763020
REB1IS-822	0~300VDC	4~20mADC	15~60VDC	
REB1IS-922	0~75mVDC	4~20mADC	15~60VDC	

REB1IS-225	4~20mADC	4~20mADC	24VDC±20%	763051
REB1IS-235	4~20mADC	0~10VDC	24VDC±20%	763057
REB1IS-245	4~20mADC	0~5VDC	24VDC±20%	763058
REB1IS-325	0~10VDC	4~20mADC	24VDC±20%	763052
REB1IS-335	0~10VDC	0~10VDC	24VDC±20%	763054
REB1IS-425	DC 0~5VDC	4~20mADC	24VDC±20%	763053
REB1IS-445	0~5VDC	0~5VDC	24VDC±20%	
REB1IS-845	0~300VDC	0~5VDC	24VDC±20%	763079
REB1IS-935	0~75mVDC	0~10VDC	24VDC±20%	763078
REB1IS-925	0~75mVDC	4~20mADC	24VDC±20%	763094

REB1IS-224	4~20mADC	4~20mADC	100~240VAC/ DC	763003
REB1IS-244	4~20mADC	0~5VDC	100~240VAC/ DC	
REB1IS-234	4~20mADC	0~10VDC	100~240VAC/ DC	
REB1IS-314	0~10VDC	0~20mADC	100~240VAC/ DC	763011
REB1IS-324	0~10VDC	4~20mADC	100~240VAC/ DC	
REB1IS-424	0~5VDC	4~20mADC	100~240VAC/ DC	763021
REB1IS-444	0~5VDC	0~5VDC	100~240VAC/ DC	

Connecting mode

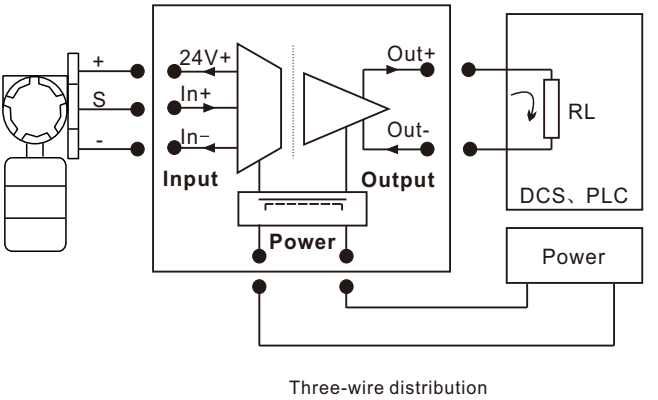
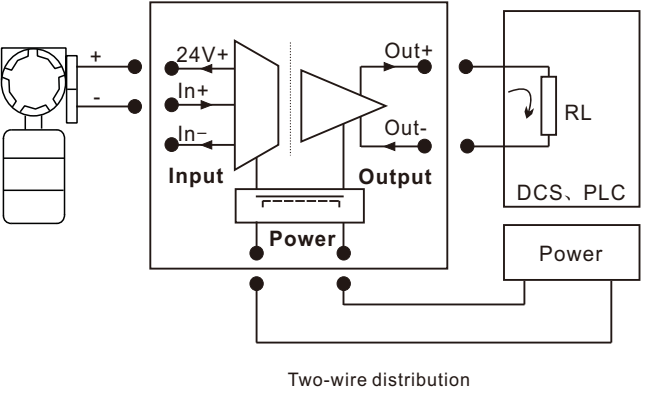


2.2、Independent power supply, 3-port isolator,
signal one input one output , input terminal with 24V distribution

Ordering data

Type	Input signal	Output	Auxiliary power supply	Distribution output	Ordering No.
REB1IS-423	0~5VDC	4~20mADC	24VDC±20%	24VDC ±5% 0.6W	
REB1IS-443	0~5VDC	0~5VDC	24VDC±20%	24VDC ±5% 0.6W	
REB1IS-243	4~20mADC	0~5VDC	24VDC±20%	24VDC ±5% 0.6W	
REB1IS-223	4~20mADC	4~20mADC	24VDC±20%	24VDC ±5% 0.6W	763034

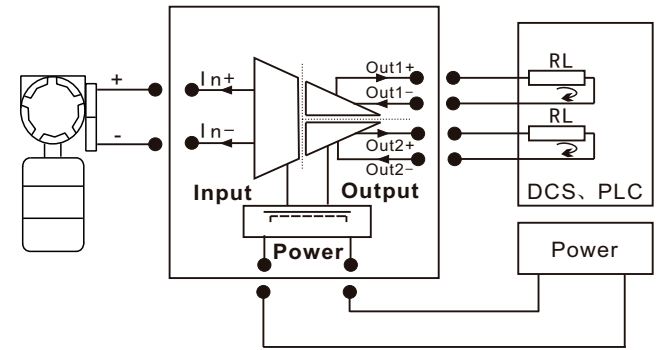
Connecting mode



2.3、Independent power supply, 4-port isolator, signal one input two output

Ordering data				
Type	Input signal	Output	Auxiliary power supply	Ordering No.
REB1IS-255	4~20mADC	2-channel 4~20mADC	24VDC±20%	763050
REB1IS-375	0~10VDC	2-channel 0~10VDC	24VDC±20%	

Connecting mode

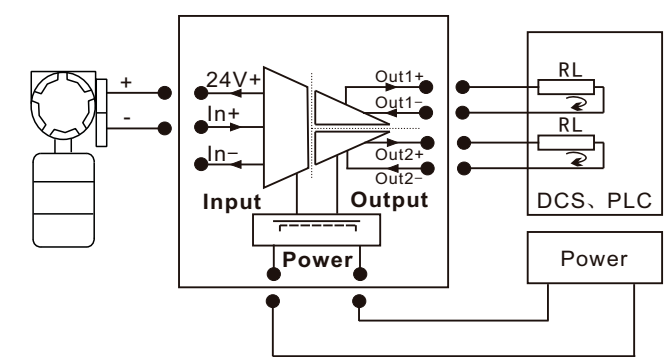


Two channel output with two-wire distribution

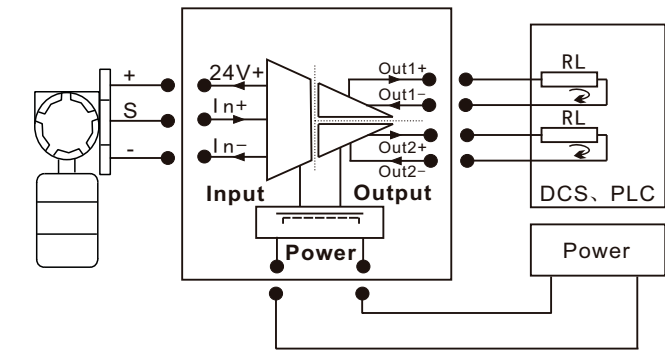
2.4、Independent power supply, 4-port isolator, signal one input two output , input terminal with 24V distribution

Ordering data					
Type	Input signal	Output	Auxiliary power supply	Distribution output	Ordering No.
REB1IS-253	4~20mADC	2-channel 4~20mADC	24VDC±10%	24VDC ±5% 0.6W	

Connecting mode



Two channel output with two-wire distribution

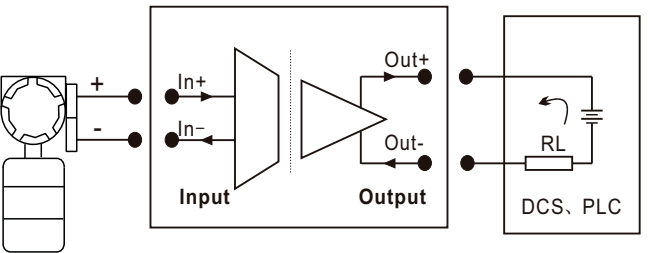


Two channel output with three-wire distribution

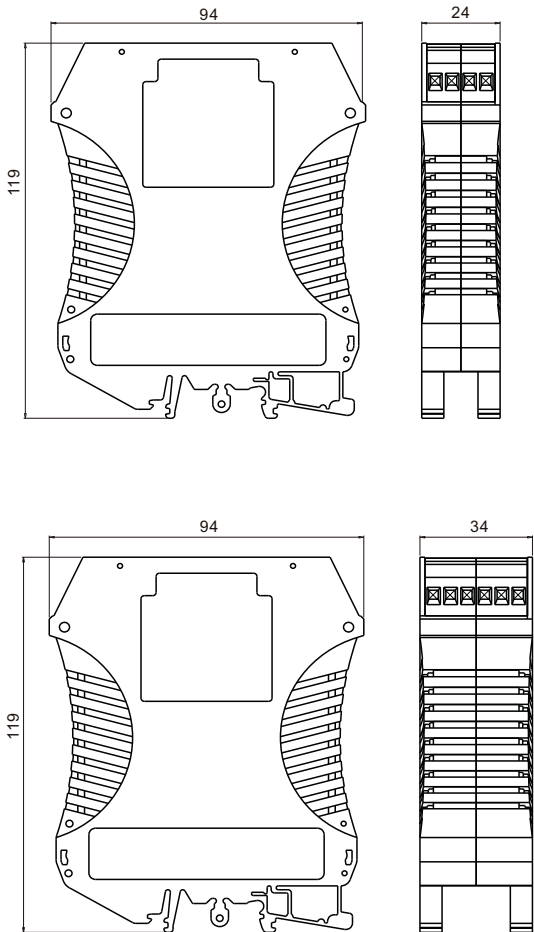
2.5、Output circuit power supply, 2-port isolator, signal one input one output

Ordering data				
Type	Input signal	Output	Auxiliary power supply	Ordering No.
REB1IS-226	4~20mADC	4~20mADC	24VDC output circuit power supply	

Connecting mode



Overall Dimension



Signal transmitter

General Information

Non-electric physical quantity in industry environment are difficulty to be transmitted and susceptible to be disturbed. Transmitters can collect physical quantity and precisely transform it into standard analog signal and reliably isolate interference, which credibly guarantees signal transmission of various kinds of control loop. RTA/RTV series current signal transmitter and voltage signal transmitter have been reliably applied for years in many industries, such as power, metallurgical, railway, petroleum, chemical, food, storage, communication, etc. And they have received widespread approval from users. RTA/RTV series have following features.

- ◆ Two types of wide-range power supply: 15-60VAC/DC and 100-240VAC/DC
- ◆ Full-closed structure with highly shock resistance and high flame retardant rating
- ◆ It is easy to be installed and dissembled for din rail 32mm and 35mm.
- ◆ Damp proofing, salt-mist-resistant and fungus-resistant
- ◆ Output terminal has short-circuit protection
- ◆ Special circuit shielding technology ensures strong anti-interference capability.
- ◆ Low power consumption, low temperature drift and short response time
- ◆ Conform to RoHS



Model Implication

RT□-□□□□
① ② ③ ④ ⑤

- | | | | | |
|---------------------------|------------------------|--------------------------|-------------------------------------|-------------------------|
| ① Transmitter series | | | | |
| ② Functional code: | A1. Single-phase AC | V1. Single-phase voltage | A3. Three-phase current | V3. Three-phase voltage |
| ③ Input signal: | 1、0~1AAC
5、0~125VAC | 2、0~5AAC
6、0~250VAC | 4、0~100VAC
7、0~450VAC | |
| ④ Output signal: | 1、0~20mADC | 2、4~20mADC | 3、0~10VDC | 4、0~5VDC |
| ⑤ Auxiliary power supply: | 4、100~240VAC/DC | 5、24VDC | 6、24VDC output circuit power supply | |

Technical Data

Input

Nominal value	Voltage: 0~125VAC、0~250VAC、0~450VAC, etc; Current: 0~1AAC、0~5AAC
Continuous power input	120% Nominal value
Impedance	Current input terminal≤100Ω , Voltage input terminal≥100kΩ

Feature

Accuracy grade	±0.5%
Temperature drift	≤250ppm/°C.F.S
Insulation resistance	≥100MΩ(500VDC·1min)
Power frequency withstanding voltage	2kV/50Hz·1min(input-output) 2kV/50Hz·1min(input-power supply) 2kV/50Hz·1min(output-power supply)
EMC standards	GBT17626 IEC61326

Output

Analog output	4~20mA、0~20mA、0~5V、0~10V
Load	Current output: ≤750Ω ; Voltage output: ≥2kΩ
Output protection	Short circuit protection
Max. output current	25mA

Power supply

Rated voltage	24VDC	100~240VAC/DC
Voltage range	24V±20%DC	85~265VAC/DC
Power consumption	≤3W	≤5VA/5W

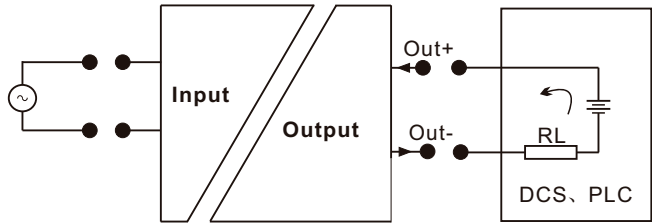
Condition	
Operating temperature	-10℃~+55℃
Storage and transportation temperature	-25℃~+70℃
Relative humidity	5%~90%(no condensation and ice inside shell) ; When tempreture reaches +40℃~55℃ , relative humidity of air is no more than 50%. High relative humidity is allowed in low temperature.
Atmospheric pressure	80 kPa~110 kPa , when altitude ≤2000m.
Overall dimension	
Installation mode	RTR35 or RTR32 Din rail installation
Size(width/ thickness/ height)	94/24/119mm
Weight	about 150g
Tightening torque	0.8Nm

Product Specifications

1、Output circuit power supply type

Ordering data				
Type	Input signal	Output	Auxiliary power supply	Ordering No.
RTA1-126	0~1AAC	4~20mADC	24VDC output circuit power supply	763213
RTA1-226	0~5AAC	4~20mADC	24VDC output circuit power supply	763214
RTV1-526	0~125VAC	4~20mADC	24VDC output circuit power supply	763210
RTV1-626	0~250VAC	4~20mADC	24VDC output circuit power supply	763211
RTV1-726	0~450VAC	4~20mADC	24VDC output circuit power supply	763212
RTV1-426	0~100VAC	4~20mADC	24VDC output circuit power supply	763209

Connecting mode

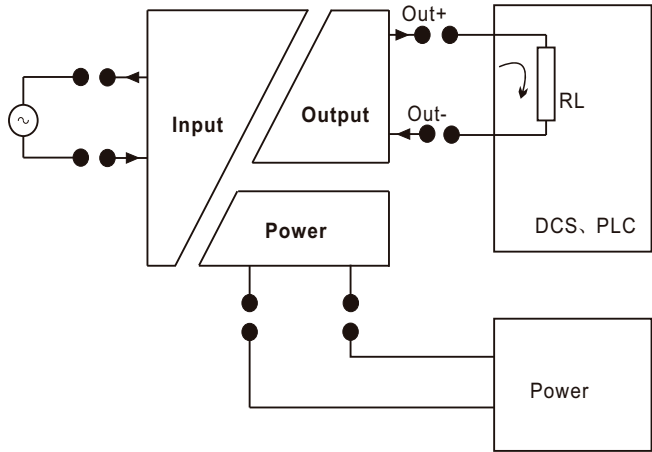


2、Independent power supply type

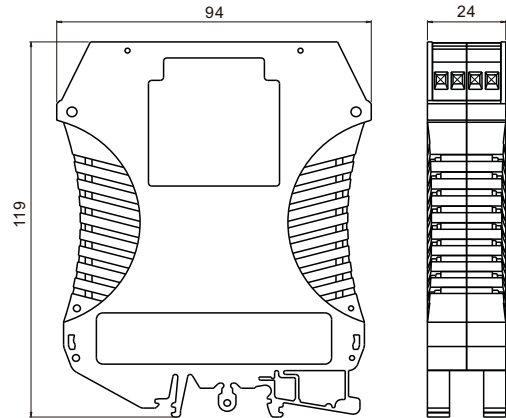
Ordering data				
Type	Input signal	Output	Auxiliary power supply	Ordering No.
RTA1-124	0~1AAC	4~20mADC	100~240VAC/DC	763218
RTA1-144	0~1AAC	0~5VDC	100~240VAC/DC	763226
RTA1-224	0~5AAC	4~20mADC	100~240VAC/DC	763220
RTA1-214	0~5AAC	0~20mADC	100~240VAC/DC	763219
RTA1-125	0~1AAC	4~20mADC	24VDC±20%	763222
RTA1-225	0~5AAC	4~20mADC	24VDC±20%	763224
RTA1-215	0~5AAC	0~20mADC	24VDC±20%	763223
RTA1-235	0~5AAC	0~10VDC	24VDC±20%	763225
RTA1-245	0~5AAC	0~5VDC	24VDC±20%	

Type	Input signal	Output	Auxiliary power supply	Ordering No.
RTV1-425	0~100VAC	4~20mADC	24VDC±20%	763231
RTV1-725	0~450VAC	4~20mADC	24VDC±20%	763232
RTV1-724	0~450VAC	4~20mADC	100~240VAC/DC	763233
RTV1-525	0~125VAC	4~20mADC	24VDC±20%	
RTV1-625	0~250VAC	4~20mADC	24VDC±20%	763234
RTV1-524	0~125VAC	4~20mADC	100~240VAC/DC	
RTV1-624	AC 0~250VAC	4~20mADC	100~240VAC/DC	
RTV1-435	AC 0~100VAC	0~10VDC	DC 24V±20%	

Connecting mode



Overall Dimension



Temperature signal transmitter

General Information

Non-electric physical quantity in industry environment are difficulty to be transmitted and susceptible to be disturbed. Transmitters can collect physical quantity and precisely transform it into standard analog signal and reliably isolate interference, which credibly guarantees signal transmission of various kinds of control loop. RTT/RTK series temperature signal transmitter can measure various kinds of temperature sensors which input signals are thermal resistance and termocouple. Their transmission range are highly precise and wide. And they have been reliably applied for years in many industries, such as power, metallurgical, railway, petroleum, chemical, food, storage, communication, etc. And they have received widespread approval from users. RTT/RTK series have following features.

- ◆ Two types of wide-range power supply: 15-60VAC/DC and 100-240VAC/DC
- ◆ Full-closed structure with highly shock resistance and high flame retardant rating
- ◆ It is easy to be installed and dissembled for din rail 32mm and 35mm.
- ◆ Damp proofing, salt-mist-resistant and fungus-resistant
- ◆ Output terminal has short-circuit protection
- ◆ Special circuit shielding technology ensures strong anti-interference capability.
- ◆ Low power consumption, low temperature drift and short response time
- ◆ Conform to RoHS



Model Implication

RT□-□□□(□~□)
① ② ③ ④ ⑤ ⑥

- ① Transmitter series
- ② Function code: T1、Pt100 K1、K scale C1、Cu50
- ③ Input signal: 1、Thermocouple signal input 2、Thermal resistance 2-channel inout 4、Thermal resistance 3-channel input
- ④ Output signal: 1、0~20mADC 2、4~20mADC 3、0~10VDC 4、0~5VDC
- ⑤ Auxiliary power supply: 4、100~240VAC/DC 5、24VDC 6、24VDC output circuit power supply
- ⑥ Temperature range: (eg: -100℃~100℃)

Technical Data

Input			
Thermal resistance	PT100 : -200°C~+800°C		Cu50 : -50°C~+150°C
Thermocouple	K Scale : -270°C~+1300°C		
	It can be customized for special requirements of signal input..		
Feature			
Accuracy grade	±0.5%		
Temperature drift	≤250ppm/°CF.S		
Insulation resistance	≥100MΩ(500VDC·1min)		
Power frequency withstanding voltage	2kV/50Hz:1min(Input-Output)	2kV/50Hz:1min(Input-Power supply)	2kV/50Hz:1min(Output-Power supply)
	3kV/50Hz:1min(Input-Ground)		
EMC standards	GBT17626 IEC61326		

Output		
Analog output	4~20mA、0~20mA、 0~5V、 0~10V	
Load	Current output: ≤750Ω ; Voltage output: ≥2kΩ	
Output protection	Short-circuit protection	
Max. output current	25mA	
Power supply		
Rated voltage	24VDC	100~240VAC/DC
Voltage range	24VDC±20%	85~265VAC/DC
Power consumption	≤3W	≤5VA/5W
Condition		
Operating temperature	-10℃~+55℃	
Storage and transportation temperature	-25℃~+70℃	
Relative humidity	5%~90%(no condensation and ice inside shell) ; When tempreture reaches +40℃~55℃ , relative humidity of air is no more than 50%. High relative humidity is allowed in low temperature.	
Atmospheric pressure	80 kPa~110 kPa , when altitude ≤2000m.	
Overall dimension		
Installation mode	RTR35/RTR32 Din rail installation	
Size(width/ thickness/ height)	94/24/119mm(Single output)、 94/34/119mm(Double output)	
Weight	about 150g	
Tightening torque	0.8Nm	

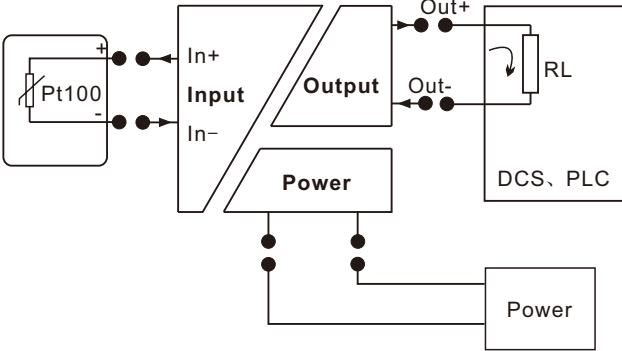
Product Specifications

1、Two-wire thermal resistance type

Ordering data					
Type	Input signal		Output	Auxiliary power supply	Ordering No.
RTT1-214 (0℃~100℃)	Pt100	Two-wire	0~20mADC	100~240VAC/DC	
RTT1-224 (0℃~100℃)	Pt100	Two-wire	4~20mADC	100~240VAC/DC	
RTT1-234 (0℃~100℃)	Pt100	Two-wire	0~10VDC	100~240VAC/DC	
RTT1-244 (0℃~100℃)	Pt100	Two-wire	0~5VDC	100~240VAC/DC	
RTT1-215 (0℃~100℃)	Pt100	Two-wire	0~20mADC	24VDC±20%	
RTT1-225 (0℃~100℃)	Pt100	Two-wire	4~20mADC	24VDC±20%	763362
RTT1-235 (0℃~100℃)	Pt100	Two-wire	0~10VDC	24VDC±20%	
RTT1-245 (0℃~100℃)	Pt100	Two-wire	0~5VDC	24VDC±20%	
RTT1-214 (-200℃~800℃)	Pt100	Two-wire	0~20mADC	100~240VAC/DC	
RTT1-224 (-200℃~800℃)	Pt100	Two-wire	4~20mADC	100~240VAC/DC	
RTT1-234 (-200℃~800℃)	Pt100	Two-wire	0~10VDC	100~240VAC/DC	
RTT1-244 (-200℃~800℃)	Pt100	Two-wire	0~5VDC	100~240VAC/DC	
RTT1-215 (-200℃~800℃)	Pt100	Two-wire	0~20mADC	24VDC±20%	763351

Type	Input signal		Output	Auxiliary power supply	Ordering No.
RTT1-225 (-200℃~800℃)	Pt100	Two-wire	4~20mADC	24VDC±20%	763352
RTT1-235 (-200℃~800℃)	Pt100	Two-wire	0~10VDC	24VDC±20%	763353
RTT1-245 (-200℃~800℃)	Pt100	Two-wire	0~5VDC	24VDC±20%	

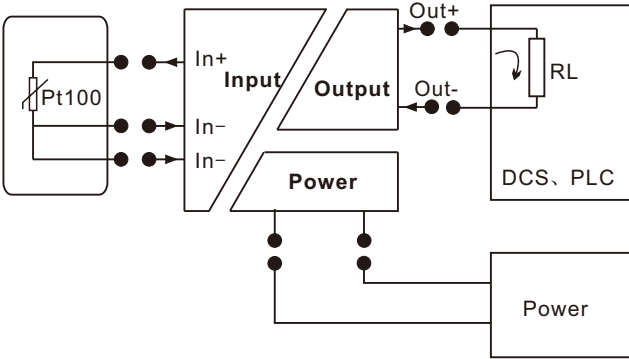
Connecting mode



2、Three-wire thermal resistance type

Ordering data					
Type	Input signal		Output	Auxiliary power supply	Ordering No.
RTT1-314 (0℃~100℃)	Pt100	Three-wire	0~20mADC	100~240VAC/DC	
RTT1-324 (0℃~100℃)	Pt100	Three-wire	4~20mADC	100~240VAC/DC	763371
RTT1-334 (0℃~100℃)	Pt100	Three-wire	0~10VDC	100~240VAC/DC	
RTT1-344 (0℃~100℃)	Pt100	Three-wire	0~5VDC	100~240VAC/DC	
RTT1-315 (0℃~100℃)	Pt100	Three-wire	0~20mADC	24VDC±20%	
RTT1-325 (0℃~100℃)	Pt100	Three-wire	4~20mADC	24VDC±20%	763361
RTT1-335 (0℃~100℃)	Pt100	Three-wire	0~10VDC	24VDC±20%	763357
RTT1-345 (0℃~100℃)	Pt100	Three-wire	0~5VDC	24VDC±20%	
RTT1-315 (0℃~200℃)	Pt100	Three-wire	0~20mADC	24VDC±20%	763376
RTT1-335 (0℃~200℃)	Pt100	Three-wire	0~10VDC	24VDC±20%	
RTT1-325 (0℃~200℃)	Pt100	Three-wire	4~20mADC	24VDC±20%	
RTT1-345 (0℃~200℃)	Pt100	Three-wire	0~5VDC	24VDC±20%	
RTT1-314 (0℃~200℃)	Pt100	Three-wire	0~20mADC	100~240VAC/DC	
RTT1-334 (0℃~200℃)	Pt100	Three-wire	0~10VDC	100~240VAC/DC	
RTT1-324 (0℃~200℃)	Pt100	Three-wire	4~20mADC	100~240VAC/DC	
RTT1-344 (0℃~200℃)	Pt100	Three-wire	0~5VDC	100~240VAC/DC	
RTT1-325 (-40℃~180℃)	Pt100	Three-wire	4~20mADC	24VDC±20%	
RTT1-325 (0℃~300℃)	Pt100	Three-wire	4~20mADC	24VDC±20%	
RTT1-325 (0℃~350℃)	Pt100	Three-wire	4~20mADC	24VDC±20%	
RTT1-325 (0℃~150℃)	Pt100	Three-wire	4~20mADC	24VDC±20%	
RTT1-325 (-200℃~500℃)	Pt100	Three-wire	4~20mADC	24VDC±20%	

Connecting mode

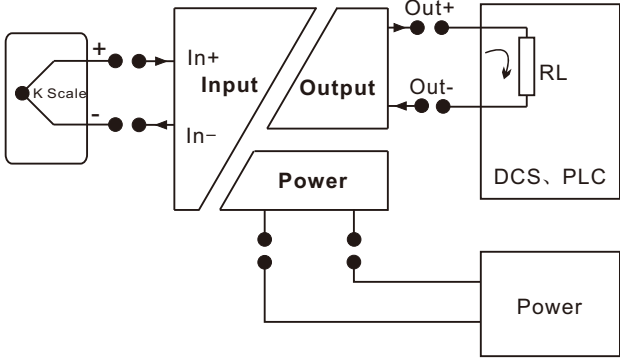


3、Thermocouple type

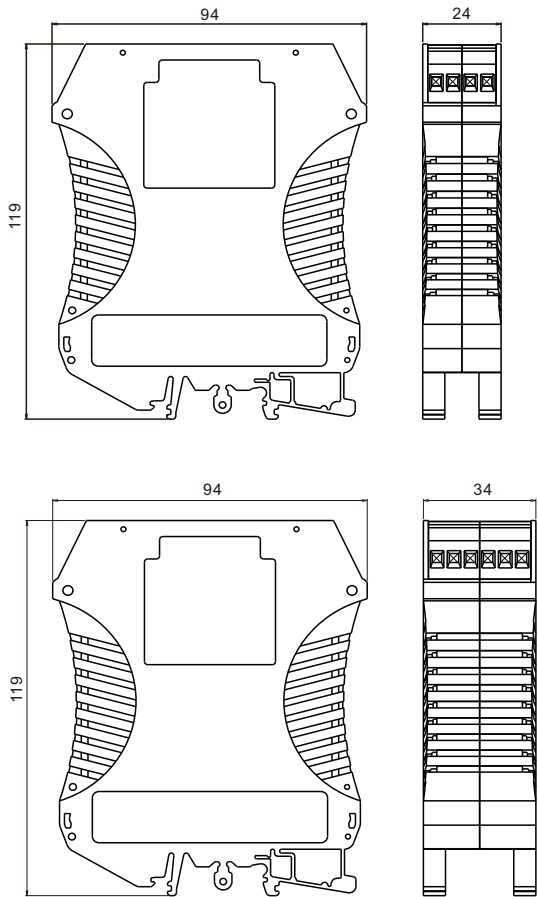
Ordering data					
Type	Input signal		Output	Auxiliary power supply	Ordering No.
RTK1-114 (0℃~100℃)	K Scale	0~100℃	0~20mADC	100~240VAC/DC	
RTK1-124 (0℃~100℃)	K Scale	0~100℃	4~20mADC	100~240VAC/DC	
RTK1-134 (0℃~100℃)	K Scale	0~100℃	0~10VDC	100~240VAC/DC	
RTK1-115 (0℃~100℃)	K Scale	0~100℃	0~20mADC	24VDC±20%	

Ordering data					
Type	Input signal		Output	Auxiliary power supply	Ordering No.
RTK1-125 (0℃~100℃)	K Scale	0~100℃	4~20mADC	24VDC±20%	
RTK1-135 (0℃~100℃)	K Scale	0~100℃	0~10VDC	24VDC±20%	
RTK1-125 (0℃~1300℃)	K Scale	0~1300℃	4~20mADC	24VDC±20%	
RTK1-125 (0℃~550℃)	K Scale	0~550℃	4~20mADC	24VDC±20%	

Connecting mode



Overall Dimension



Potentiometer signal transmitter

General Information

Non-electric physical quantity in industry environment are difficulty to be transmitted and susceptible to be disturbed. Transmitters can collect physical quantity and precisely transform it into standard analog signal and reliably isolate interference, which credibly guarantees signal transmission of various kinds of control loop. RTP series potentionmeter signal transmitter have been reliably applied for years in many industries, such as power, metallurgical, railway, petroleum, chemical, food, storage, communication, etc. And they have received widespread approval from users. RTP series have following features.



- ◆ Two types of wide-range power supply: 15-60VAC/DC and 100-240VAC/DC
- ◆ Full-closed structure with highly shock resistance and high flame retardant rating
- ◆ It is easy to be installed and dissembled for din rail 32mm and 35mm.
- ◆ Damp proofing, salt-mist-resistant and fungus-resistant
- ◆ Output terminal has short-circuit protection
- ◆ Special circuit shielding technology ensures strong anti-interference capability.
- ◆ Low power consumption, low temperature drift and short response time
- ◆ Conform to RoHS

Model Implication

RT ☐ - ☐ ☐ ☐
① ② ③ ④ ⑤

- ① Transmitter series
- ② Function code: P、Potentiometer signal
- ③ Input signal: 1、Potentiometer from 100Ω to 100kΩ
- ④ Output signal: : 1、0~20mADC 2、4~20mADC 3、0~10VDC 4、0~5VDC
- ⑤ Auxiliary power supply: 4、100~240VAC/DC 5、24VDC

Technical Data

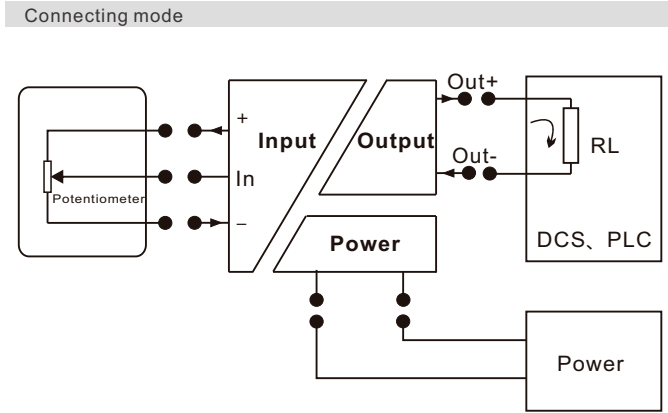
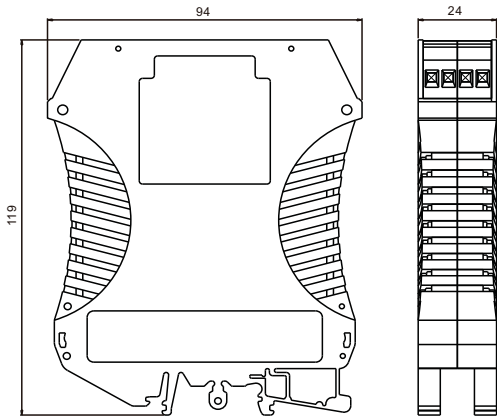
Input		
Potentiometer range	From 100 Ω to 100k Ω	
Excitation voltage	2.5VDC	
Feature		
Accuracy grade	±0.5%	
Temperature drift	≤250ppm/℃F.S	
Insulation resistance	≥100M Ω (500VDC • 1 min)	
Power frequency withstanding voltage	2kV/50Hz • 1min(input-output) 2kV/50Hz • 1min(input-power supply) 2kV/50Hz • 1min(output-power supply)	
EMC standards	3kV/50Hz • 1min(input-ground)	
	GBT17626	IEC61326
Output		
Analog output	4~20mA、0~20mA、0~5V、0~10V	
Load	Current output: ≤750Ω ; Voltage output: ≥2kΩ	
Output protection	Short circuit protection	
Max. output current	≤25mA	
Power supply		
Rated voltage	24VDC	100~240VAC/DC
Voltage range	24VDC±20%	85~265VAC/DC
Power consumption	≤3W	≤5W

Condition	
Operating temperature	-10℃~+55℃
Storage and transportation temperature	-25℃~+70℃
Relative humidity	5%~90%(no condensation and ice inside shell) ; When tempreture reaches +40℃~55℃ , relative humidity of air is no more than 50%.
Atmospheric pressure	80 kPa~110 kPa , when altitude ≤2000m.
Overall dimension	
Installation mode	RTR35 or RTR32 Din rail installation
Size(width/ thickness/ height)	94/24/119mm
Weight	about 150g
Tightening torque	0.8Nm

Product Specifications

Ordering data				
Type	Input signal	Output	Auxiliary power supply	Ordering No.
RTP-115	0~(100Ω~100kΩ)	0~20mADC	24VDC±20%	
RTP-125	0~(100Ω~100Ω)	4~20mADC	24VDC±20%	
RTP-535	0~(100Ω~100kΩ)	0~10VDC	24VDC±20%	
RTP-145	0~(100Ω~100kΩ)	0~5VDC	24VDC±20%	
RTP-114	0~(100Ω~100kΩ)	0~20mADC	100~240VAC/DC	
RTP-124	0~(100Ω~100kΩ)	4~20mADC	100~240VAC/DC	
RTP-134	0~(100Ω~100kΩ)	0~10VDC	100~240VAC/DC	
RTP-144	0~(100Ω~100kΩ)	0~5VDC	100~240VAC/DC	

Overall Dimension



Intelligent signal transmitter

General Information

Non-electric physical quantity in industry environment are difficulty to be transmitted and susceptible to be disturbed. Transmitters can collect physical quantity and precisely transform it into standard analog signal and reliably isolate interference, which credibly guarantees signal transmission of various kinds of control loop. Based on configuration software in upper computer, RT2E series intelligent signal transmitter can input many kinds of signal, including current, voltage, potentiometer, frequency, temperature, etc. And it also can output programmable results. Users process setting in the upper computer, which makes different types of signal input and output. Process setting for the configuration type is to toggle the code switch, which realizes to change types of input and output signal. It has been reliably applied for years in many industries, such as power, metallurgical, railway, petroleum, chemical, food, storage, communication, etc. And they have received widespread approval from users. RT2E series have following features.



- ◆ Two types of wide-range power supply: 24VDC±20% and 100-240VAC/DC
- ◆ Full-closed structure with highly shock resistance and high flame retardant rating
- ◆ It is easy to be installed and dissembled for din rail 35mm.
- ◆ Damp proofing, salt-mist-resistant and fungus-resistant
- ◆ Output terminal has short-circuit protection
- ◆ Special circuit shielding technology ensures strong anti-interference capability.
- ◆ Low power consumption, low temperature drift and short response time
- ◆ Conform to RoHS

Model Implication



① Intelligent transmitter series

② Input signal: 2、Three-phase three-wire current type/ Three-phase four-wire configuration
3、Three-phase three-wire voltage type/ Three-phase four-wire configuration
4、Programmable input

③ Output signal: 3、Three-channel DC0-20mA/DC4-20mA/DC0-10V/DC0-5V configuration 4、Programmable output

④ Auxiliay power supply: 1、100~240VAC/DC 2、24VDC Output circuit power supply 3、24VDC

Technical Data

Input						
Intelligent type: (Programmable)	Millivolt signal	-200mV ~ 0 ~ 200mVDC	Configuration type: (Configurable)	Voltage signal	220VAC	380VAC
	Voltage signal	-10V ~ 0 ~ 10VDC		Current signal	1A	5A
	Current signal	0 ~ 20mA		Connection	Three-phase four-wire system	
	Temperature signal	Pt100、Cu50 type thermal resistance, 2-wire, 3-wire and 4-wire system input B、E、J、K、N、R、S、T type thermocouple input			Three-phase three-wire system	
	Frequency signal			0.1Hz ~ 100kHz	NPN/PNP	
	Potentiometer signal	1kΩ ~ 100kΩ				
Feature						
Accuracy grade	Intelligent type:±0.2%	Configuration type:±0.2%(default state) , ±0.5%(relevant state)				
Temperature drift	≤200ppm/°CF.S					
Insulation resistance	≥100MΩ(500VDC·1min)					
Power frequency withstanding voltage	1kV/50Hz·1min(Input-output)		1kV/50Hz·1min(Input-power supply)			
	1kV/50Hz·1min(Output-power supply)		3kV/50Hz·1min(Output-ground)			
EMC standards	GBT17626	IEC61326				

Output		
Analog output	4~20mA、0~20mA、0~5V、0~10V	
Load	Current output: Configuration type≤750Ω , Intelligent type≤600Ω ; Voltage type≥2kΩ	
Output protection	Short circuit protection	
Max. output current	25mA	
Power supply		
Rated voltage	24VDC	100~240VAC/DC
Voltage range	24VDC±20%	85~265VAC/DC
Power consumption	≤3W	≤5VA/5W
Condition		
Operating temperature	-10℃~+55℃	
Storage and transportation temperature	-25℃~+70℃	
Relative humidity	5%~90%(no condensation and ice inside shell) ; When tempreture reaches +40℃~55℃ , relative humidity of air is no more than 50%.	
Atmospheric pressure	80 kPa~110 kPa , when altitude ≤2000m.	
Overall dimension		
Installation mode	RTR35 Din rail installation	
Size(width/ thickness/ height)	121/23/110mm(Intelligent type)	121/33/110mm(Configuration type)
Weight	about 150g	
Tightening torque	0.8Nm	

Product Specifications

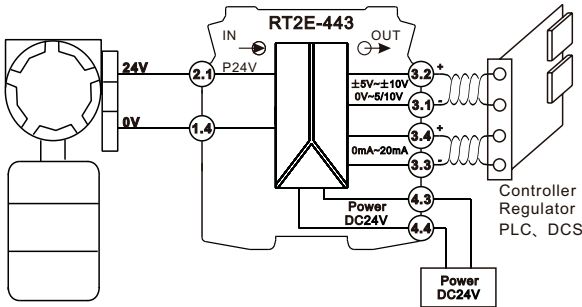
Intelligent signal transmitter

Ordering data				
Type	Input signal	Output	Auxiliary power supply	Ordering No.
RT2E-443	Programmable	Programmable	24VDC	763152
RT2E-331	Voltage type	Configutable	100~240VAC/DC	763155

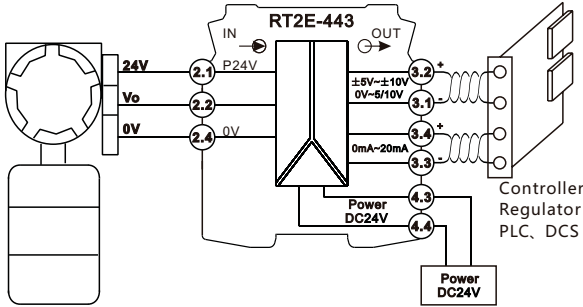
Connecting mode

1、Programmable type

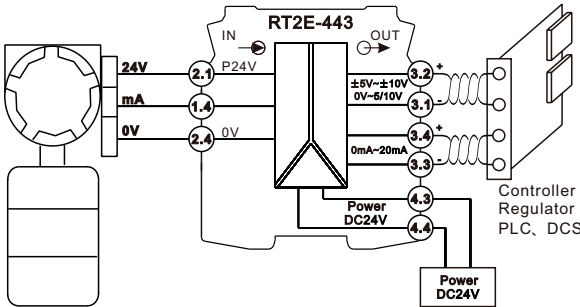
1.1、Two-wire voltage input



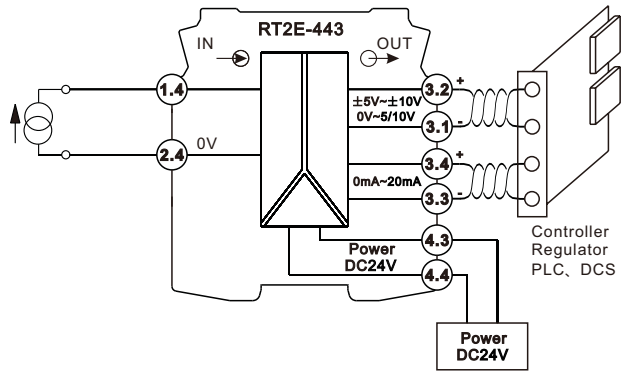
1.2、Three-wire voltage input



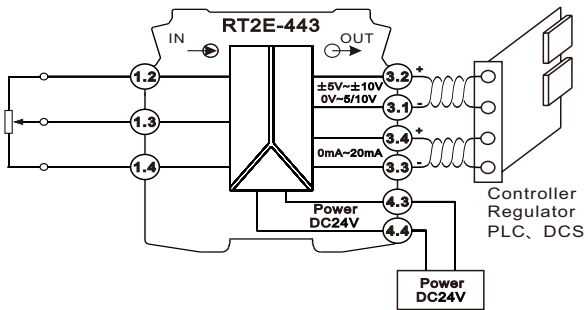
1.3、Three-wire current input



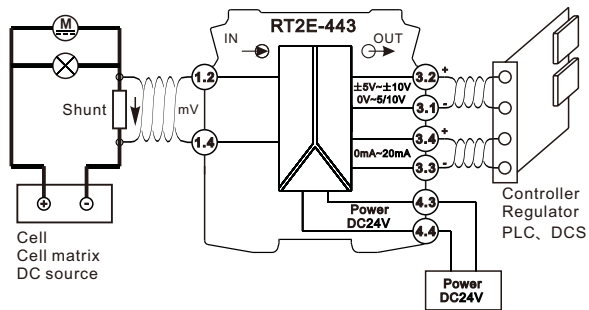
1.4. Current source measurement



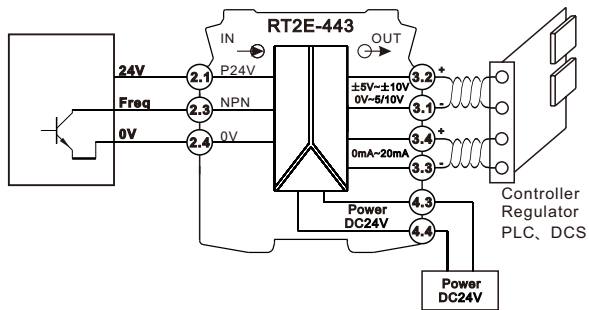
1.8. Potentiometer input measurement



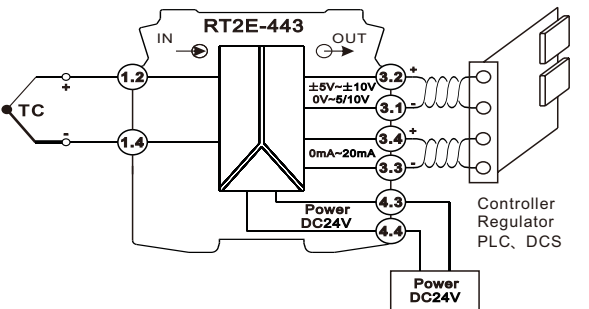
1.5. Millivolt signal measurement



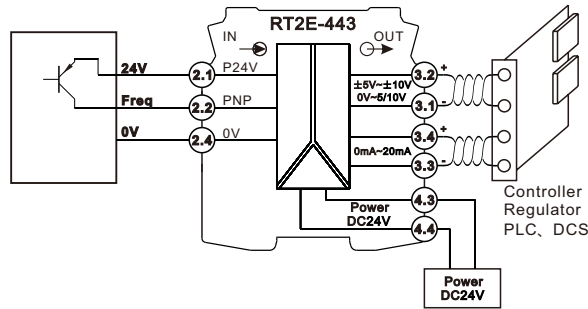
1.9. NPN transistor frequency input



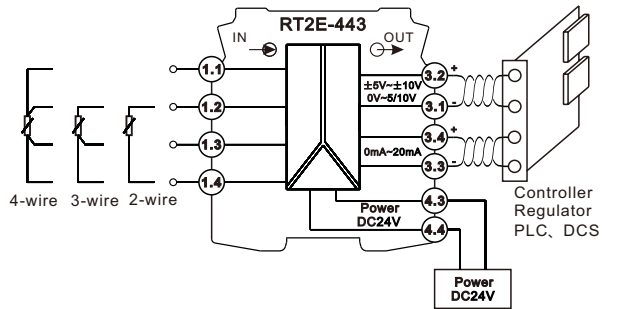
1.6. Thermocouple



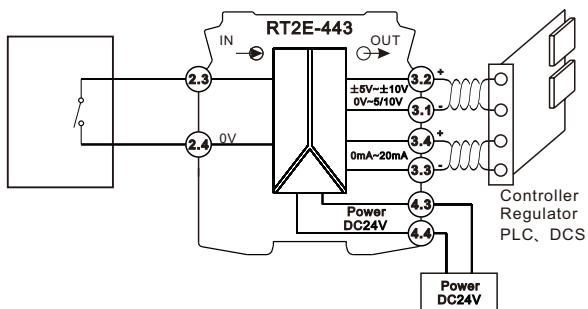
1.10. PNP Transistor frequency input



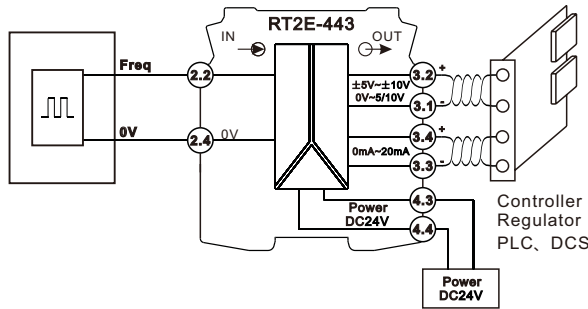
1.7. Thermocouple measurement



1.11. Dry contact frequency input



1.12. TTL frequency input

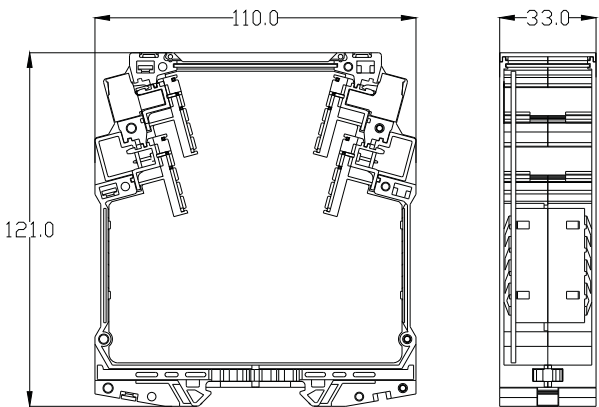
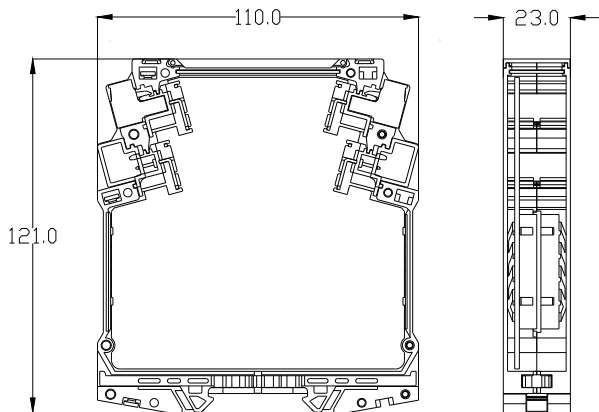


2.3. Configuration table

S1/S2/S3						configuration table					
1	2	3	4	5	6	Output					
ON	ON					4-20mA					
ON	ON					0-20mA					
ON		ON		ON		0-5V					
ON		ON	ON			0-10V					

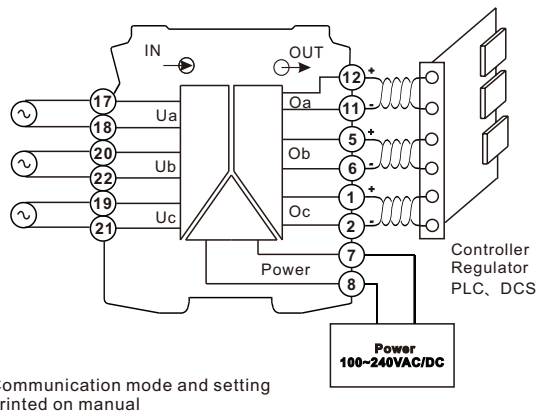
S1/S2/S3						Input					
1	2	3	4	5	6	3-P 4-W					
ON						3-P 3-W					

Overall Dimension



2. Configuration type

2.1. Connection diagram



Communication mode and setting
printed on manual

2.2. Wiring system

