

POTENTIOMETER

WRTP2 –

Use

This device replaces the mechanical displacement of an angle or a position by the resistance value change of the potentiometer, then insulates and converts it into a proportional DC signal.

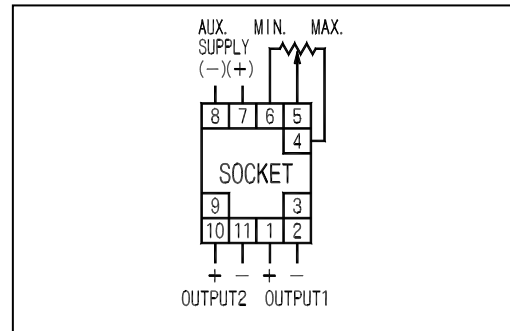


**WRTP2-ZH51**  
(80 × 50 × 133mm/500g)

Features

1. Can cope with resistance range 100Ω-10kΩ of the potentiometer.
2. Constant voltage/current output.
3. Withstand voltage between input, output, auxiliary supply and outer case is AC2, 000V (50/60Hz), complete insulation for 1 min..
4. Withstand voltage between 1st output and 2nd output is AC1, 000V.
5. Impulse withstands voltage 5kV, 1.2/50μs (between electric circuit and outer case) positive/ negative polarity 3 times each is guaranteed.

Connection diagram



Specification

Nominal total resistance	External resistance	1 <sup>st</sup> Output (load resistance)	2 <sup>nd</sup> Output (load resistance)	Auxiliary supply	Common specification
100Ω	☑ any value within 100Ω-10kΩ If a potentiometer is of the rang 100Ω-10kΩ, it can be used under the following adjustment ranges of output signal.	①: DC0-100mV ( 200Ω)	①: DC0-100mV ( 200Ω)	①: AC100V±10%, 50/60Hz	Tolerance: ±0.5% Response time: 0.5sec./90% Consumption VA: AC power source:3VA DC power source:3.5W Weight: AC power source:500g DC power source:400g
135Ω		②: DC0-1V ( 200Ω)	②: DC0-1V ( 200Ω)	②: AC110V±10%, 50/60Hz	
200Ω		③: DC0-5V ( 1kΩ)	③: DC0-5V ( 1kΩ)	③: AC200V±10%, 50/60Hz	
400Ω		④: DC 0-10V ( 2kΩ)	④: DC 0-10V ( 2kΩ)	④: AC220V±10%, 50/60Hz	
500Ω		⑤: DC1-5V ( 1kΩ)	⑤: DC1-5V ( 1kΩ)	⑤: DC24V±10%	
1kΩ		⑥: DC0-1mA ( 12kΩ)	⑥: DC0-1mA ( 7kΩ)	⑥: other than those above	
2kΩ		⑦: DC0-5mA ( 2.4kΩ)	⑦: DC0-5mA ( 1.4kΩ)		
3kΩ		⑧: DC0-10mA ( 1.2kΩ)	⑧: DC0-10mA ( 700Ω)		
5kΩ		⑨: DC0-16mA ( 750Ω)	⑨: DC0-16mA ( 430Ω)		
10kΩ		⑩: DC1-5mA ( 2.4kΩ)	⑩: DC1-5mA ( 1.4kΩ)		
		⑪: DC4-20mA ( 600Ω)	⑪: DC4-20mA ( 350Ω)		
		⑫: other than those above	⑫: other than those above		
		⑬: DC4-20mA( 800Ω) DC1-5V( 250kΩ) With output switching function	⑬: DC1-5V ( 1kΩ)	⑬: AC100V+10%, -15%, 50/60Hz ⑭: AC110V+10%, -15%, 50/60Hz ⑮: AC200V+10%, -15%, 50/60Hz ⑯: AC220V+10%, -15%, 50/60Hz ⑰: DC24V+10%, -15%,	

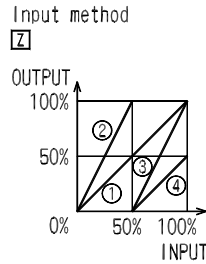
Open of current output: even if the current output terminal is used in a state of regular open, there is no problem. Also, a voltage of approx. 25V occurs on the output terminal.

Adjustment range of output signal

INPUT FORM  BIAS adjustment range: 0-50% of input span  
 (can be changed from the front of converter.)  
 MAX adjustment range: 50-100% of input span  
 (can be changed from the front of converter.)

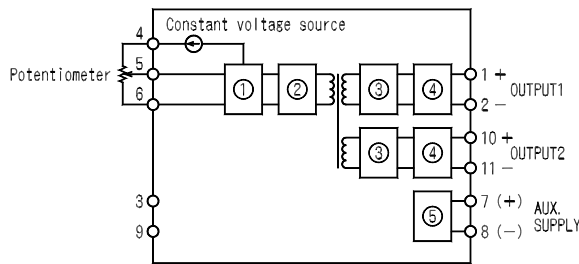
BIAS.....0%, MAX.....100% Standard  
 BIAS.....0%, MAX.....50%  
 BIAS.....50%, MAX.....50% (parallel shift of )  
 BIAS.....50%, MAX.....100% (parallel shift of )

\*Being within 0-50% of input value is sufficient for adjusting the output value to zero.



Because this device is potential-free, product is shipped in input of 0-10k /output of above graph (standard) .

Block diagram



Low-drift voltage amplifying circuit  
 Pulse width modulation circuit  
 Pulse width demodulation circuit  
 Output circuit  
 Insulated power source circuit

Purchase specifications

