ISOLATOR

TP2 - □□□

TP2-C7F5
(80×50×121mm/300g)

■ Use

Amplifies various kinds of DC signals and converts them into a unified intersystem signal. With input and output insulated, the product offers full advantages in transmitting insulated signals between measuring systems, cutoff of noise, protecting a control circuit from a sneak current, and transmitting an output directly to a distant place.

■ Features

1. Constant voltage/current output
2. Withstand voltage between input, output, auxiliary supply and outer case (earth) is AC2, 000V (50/60Hz), complete insulation for 1 minute.
3. Impulse withstands voltage 5kV, 1.2/50μs (between electric circuit and outer case), and positive/negative polarity 3 times each is guaranteed.
4. With output line surge protection. (2, 000A, ±8/20μs)

■ Specification

Input (input resistance or voltage drop)		Output (load resistance)	Auxiliary supply	Common specification
A1 : DC0-10mV (approx.1MΩ)	C1 : DC0-10μA (100mV) *1	1 : DC0-100mV (≧200Ω)	1 : AC100V±10%, 50/60Hz	Tolerance: ±0.25% *2
A2 : DC0-50mV (approx.1MΩ)	C2 : DC0-100μA (100mV)	2 : DC0-1V (≧200Ω)	2 : AC110V±10%, 50/60Hz	Response time: ≦0.5sec./99%
A3 : DC0-60mV (approx.1MΩ)	C3 : DC0-1mA (approx.100Ω)	3 : DC0-5V (≧1kΩ)	3 : AC200V±10%, 50/60Hz	Consumption VA:
A4 : DC0-100mV (approx.1MΩ)	C4 : DC0-5mA (approx.100Ω)	4 : DC 0-10V (≧2kΩ)	4 : AC220V±10%, 50/60Hz	AC power source:3VA
A5 : DC0-1V (approx.1MΩ)	C5 : DC0-10mA (approx.100Ω)	5 : DC1-5V (≧1kΩ)	5 : DC24V±10%	DC power source:4W
A6 : DC0-5V (approx.1MΩ)	C6 : DC0-16mA (approx.100Ω)	6 : DC±5V (≧1kΩ)	6 : DC48V±10%	Weight:
A7 : DC0-10V (approx.1MΩ)	C7 : DC4-20mA (approx.100Ω)	7 : DC±10V (≧2kΩ)	7 : DC100V/110V (88-143V)	AC power source:700g
A8 : DC1-5V (approx.1MΩ)	D1 : DC±10μA (±100mV)*1	A : DC0-1mA (≦10kΩ)	0 : other than those above	DC power source:300g
B1 : DC±10mV (approx.1MΩ)	D2 : DC±100μA (±100mV)	B : DC0-5mA (≦2kΩ)		
B2 : DC±50mV (approx.1MΩ)	D3 : DC±500μA (±100mV)	C : DC0-10mA (≦1kΩ)		
B3 : DC±60mV (approx.1MΩ)	D4 : DC±1mA (approx.100Ω)	D : DC0-16mA (≦600Ω)		
B4 : DC±100mV (approx.1MΩ)	D5 : DC±5mA (approx.100Ω)	E : DC1-5mA (≦3kΩ)		
B5 : DC±1V (approx.1MΩ)	D6 : DC±10mA (approx.100Ω)	F : DC4-20mA (≦750Ω)		
B6 : DC±5V (approx.1MΩ)	00 : other than those above	0 : other than those above		
B7 : DC±10V (approx.1MΩ)				

*1. Circuit voltage ≦15V for an input of 10μA.
*2. Tolerance becomes ±0.5% when input voltage is less than 50mV, input current is less than 100μA.
● 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.

● Option: surge absorber (5kV, 1.2/50μs positive/negative polarity)

When an inductive lightning surge occurs from input or output side, this device absorbs the surge and protects connected equipments.
However, the device is not necessary if the connected equipment is protected by an arrester or suchlike.

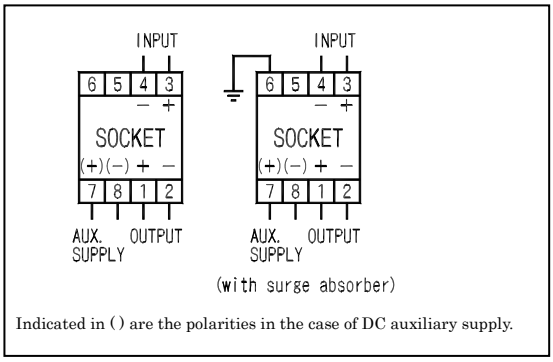
● Built-in ripple filter

Even if a ripple of single-phase AC full rectification wave (50/60Hz) degree is included in input wave, it still converts the wave into a smoothed DC signal. Please consult with us for special wave patterns such as an inverter.

● UR-1 precise resistance unit (selling separately)

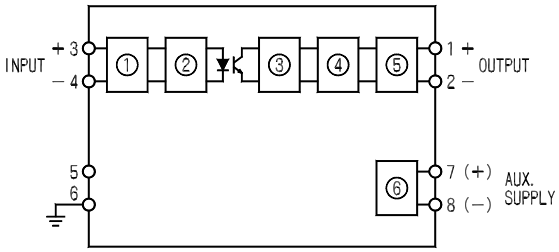
Please use a UR-1 combined with an isolator of voltage input. When changing the isolator in a hot line state at the time of current input, if measures against open are necessary, connect UR-1 to socket and convert it into a voltage signal before using it. (UR-1, the resistance specified)

■ Connection diagram



Indicated in ( ) are the polarities in the case of DC auxiliary supply.

■ Block diagram



①Low-drift amplifying circuit
②Pulse width modulation circuit
③Pulse width demodulation circuit
④Output circuit
⑤Output line surge protection circuit
⑥Insulated power source circuit

■ Purchase specifications