SIGNAL TRANSDUCER

ULTRAHIGH SPEED ISOLATOR

HSTP1 -

Use

Amplifies various kinds of DC signals and converts them into a unified intersystem signal at an ultrahigh speed. Because the device is high speed response ($500 \,\mu \, s/90\%$), it can be used for insulating a feedback signal of a control circuit and so on.

Features

- 1. With built-in ultrahigh speed isolator.
- 2. Constant voltage/current output.
- 3. Withstand voltage between input, output, auxiliary supply and outer case (earth) is AC1, 500V (50/60Hz), complete insulation for 1 minute.
- 4. Impulse withstands voltage 5kV, 1.2/50µs (between electric circuit and outer case), and positive/negative polarity 3 times each is guaranteed.
- 5. With output line surge protection. (2, 000A, ±8/20µs, positive/negative polarity)

Specification

Input (input resistance or voltage drop)		Output (load resistance)	Auxiliary supply	Common specification
A1: DC0 10	<u>C1</u> : DC0-10 µ A (100mV) *1	1: DC0-100mV (200)	1 : AC100V±10%,	Tolerance: ± 0.25% *2
$\underline{A1} : DC0-10 \text{mV} (\text{approx.1M}\Omega)$	C2 : DC0-100 µ A (100mV)	2: DC0-1V (200)	50/60 Hz	Response time:
$\underline{A2} : DC0-50 \text{mV} \text{ (approx.1M}\Omega)$	C3 : DC0-1mA (approx.100Ω)	3:DC0-5V(1k)	2:AC110V±10%,	500 µ s/90%
$\underline{A3} : DC0-60 \text{mV} (\text{approx.1M}\Omega)$	C4 : DC0-5mA (approx.100Ω)	4: DC 0-10V (2k)	50/60Hz	Consumption VA:
$\underline{A4} : DC0-100 \text{mV} (\text{approx.1M}\Omega)$	C5 : DC0-10mA (approx.100Ω)	5 : DC1-5V (1k)	3 : AC200V±10%,	AC power source:3VA
$\underline{A5} : DC0-1V \text{ (approx.1M}\Omega\text{)}$	C6 : DC0-16mA (approx.100Ω)	6:DC±5V(1k)	50/60 Hz	DC power source:4W
$\underline{A6}$: DC0-5V (approx.1M Ω)	C7 : DC4-20mA (approx.100Ω)	$7 : DC \pm 10V (2k)$	4 : AC220V±10%,	Weight:
$\underline{A7}$: DC0-10V (approx.1MQ)	D1 : DC \pm 10 μ A (\pm 100mV)*1	A:DC0-1mA (10k)	50/60 Hz	AC power source:400g
$\underline{A8} : DC1-5V \text{ (approx.1M}\Omega\text{)}$	$D2: DC \pm 100 \mu A (\pm 100 mV)$	\mathbf{B} : DC0-5mA (2k)	5 : DC24V±10%	DC power source:300g
$\underline{B1}: DC \pm 10 \text{mV} \text{ (approx.1MQ)}$	$D3 : DC \pm 500 \mu A (\pm 100 mV)$	C : DC0-10mA(1k)	6:DC48V±10%	
$\underline{B2} : DC \pm 50 \text{mV} \text{ (approx.1MQ)}$	$D4$: DC ± 1mA (approx.100 Ω)	D:DC0-16mA(600)	0 : other than	
$\underline{B3} : DC \pm 60 \text{mV} \text{ (approx.1M}\Omega\text{)}$	$D5$: DC ± 5mA (approx.100 Ω)	E: DC1-5mA(3k)	those above	
$\underline{B4} : DC \pm 100 \text{mV} \text{ (approx.1MQ)}$	$D6$: DC ± 10mA (approx.100 Ω)	F:DC4-20mA(750)		
$\underline{B5} : DC \pm 1V \text{ (approx.1MQ)}$	00 : other than those above	0 : other than those above		
$\underline{B6} : DC \pm 5V \text{ (approx.1MQ)}$		-		
$\underline{B7}$: DC ± 10V (approx.1MQ)				

*1. Circuit voltage 15V for an input of 10μ A.

*2. Tolerance becomes $\pm 0.5\%$ when input voltage is less than 50mV; input current is less than 100 μ A.

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.

Ultrahigh speed response

Keep in mind that because this device is high speed response, its ripple-removal ability is not as high as those of other models.

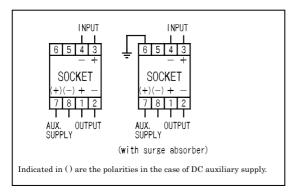
UR-1 precise resistance unit (selling separately)

Please use a UR-1 combined with an ultrahigh speed isolator of voltage input. When changing the ultrahigh speed 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)

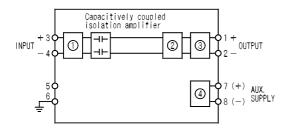


HSTP1-C7F1 (80 × 50 × 121mm/400g)

Connection diagram



Block diagram



Low-drift amplifying circuit Output circuit Output line surge protection circuit Insulated power source circuit

Purchase specifications

