

§ BOX TRANSDUCER §
SMALL SIZED SIGNAL TRANSDUCER TT2-91A

■ **APPLICATION**

This device amplifies various kinds of DC signals and converts them into unified intersystem signals. Because input, output, power source and earth are reciprocally insulated by a withstand voltage 2,000V, the product offers full advantages in transmitting insulated signals between power measuring systems, cutoff of noise, protecting control circuit from a sneak current, and transmitting an output directly to a distant place.

■ **FEATURES**

- Withstand voltage AC2000V 50/60Hz for 1 min. between input, output, auxiliary supply and earth.
- Impulse withstand voltage 5kV 1.2/50 μ s positive/negative polarity 3 times each between electric circuit and earth, auxiliary supply and input/output.
- Supports both DIN rail and wall mounting.



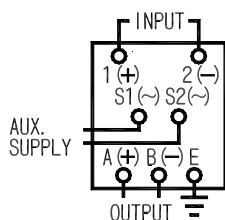
Isolator TT2-91A
(120×40×130mm/0.5kg)

■ **SPECIFICATION**

Input (input resistance or voltage drop)		Output (load resistance)		Auxiliary Supply	Common Specification
A1 *1 : DC0-10mV (approx. 1M Ω)	C1 *1, 2 : DC0-10 μ A (100mV)	1 : DC0-100mV ($\geq 200\Omega$)	1 : AC100/110V $\pm 10\%$, 50/60Hz	1 : AC100/110V $\pm 10\%$, 50/60Hz 2 : AC200/220V $\pm 10\%$, 50/60Hz 3 *5 : DC20-57V 4 : DC100/110V (88-143V) 0 : other than those above	Tolerance: $\pm 0.25\%$ Response time ≤ 0.2 sec./99% VA consumption: AC power source 3VA DC power source 3W
A2 : DC0-50mV (approx. 1M Ω)	C2 *1 : DC0-100 μ A (100mV)	2 : DC0-1V ($\geq 200\Omega$)	2 : AC200/220V $\pm 10\%$, 50/60Hz		
A3 : DC0-60mV (approx. 1M Ω)	C3 : DC0-1mA (approx. 100 Ω)	3 : DC0-5V ($\geq 600\Omega$)	3 *5 : DC20-57V		
A4 : DC0-100mV (approx. 1M Ω)	C4 : DC0-5mA (approx. 100 Ω)	4 : DC0-10V ($\geq 2k\Omega$)	4 : DC100/110V (88-143V)		
A5 : DC0-1V (approx. 1M Ω)	C5 : DC0-10mA (approx. 100 Ω)	5 : DC1-5V ($\geq 600\Omega$)	0 : other than those above		
A6 : DC0-5V (approx. 1M Ω)	C6 : DC0-16mA (approx. 100 Ω)	A : DC0-1mA ($\leq 10k\Omega$)			
A7 : DC0-10V (approx. 1M Ω)	C7 : DC4-20mA (approx. 100 Ω)	B : DC0-5mA ($\leq 2k\Omega$)			
A8 : DC1-5V (approx. 1M Ω)	D1 *1, 2 : DC $\pm 10\mu$ A (± 100 mV)	C : DC0-10mA ($\leq 1k\Omega$)			
B1 *1 : DC ± 10 mV (approx. 1M Ω)	D2 *1 : DC $\pm 10\mu$ A (± 100 mV)	D : DC0-16mA ($\leq 600\Omega$)			
B2 : DC ± 50 mV (approx. 1M Ω)	D3 : DC $\pm 500\mu$ A (± 100 mV)	E : DC1-5mA ($\leq 2k\Omega$)			
B3 : DC ± 60 mV (approx. 1M Ω)	D4 : DC ± 1 mA (approx. 100 Ω)	F : DC4-20mA ($\leq 550\Omega$)			
B4 : DC ± 100 mV (approx. 1M Ω)	D5 : DC ± 5 mA (approx. 100 Ω)	0 *4 : other than those above			
B5 : DC ± 1 V (approx. 1M Ω)	D6 : DC ± 10 mA (approx. 100 Ω)				
B6 : DC ± 5 V (approx. 1M Ω)	00 *3 : other than those above				
B7 : DC ± 10 V (approx. 1M Ω)					

- *1 Tolerance becomes $\pm 0.5\%$ in the case of input voltage less than 50mV, input current less than 500 μ A.
- *2 For input 10 μ A, circuit voltage is 15V or less.
- *3 Input voltage ranging from 10mV to 600V, input current ranging from 10 μ A to 100mA are manufacturable.
- *4 Consult with us for voltage output up to 10V, current output up to 20mA.
- *5 Rated voltage of auxiliary supply DC20-57V is DC24V or DC48V.
- ▶ Open current output: The output terminal can be used with the current output terminal open at all times.
Note that approx. 15V voltage will occur at the output terminal.

■ **CONNECTION DIAGRAM**



In the case of DC auxiliary supply, connect the wire with S1 as + and S2 as -.

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● Specifying special filter

When a ripple equal to a single-phase AC full rectification wave (50/60Hz) degree is included in input wave, it is necessary to specify a special filter to convert it into a DC output. A 50/60Hz full rectification wave filter is attached by specification. Also, consult with us for special waveform such as inverter.

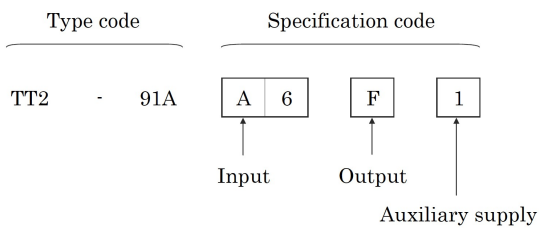
● Response time

Please specify it if a product of a very fast response time (60ms/99%) in control circuit is necessary.

■ **PURCHASE SPECIFICATION**

● Specification

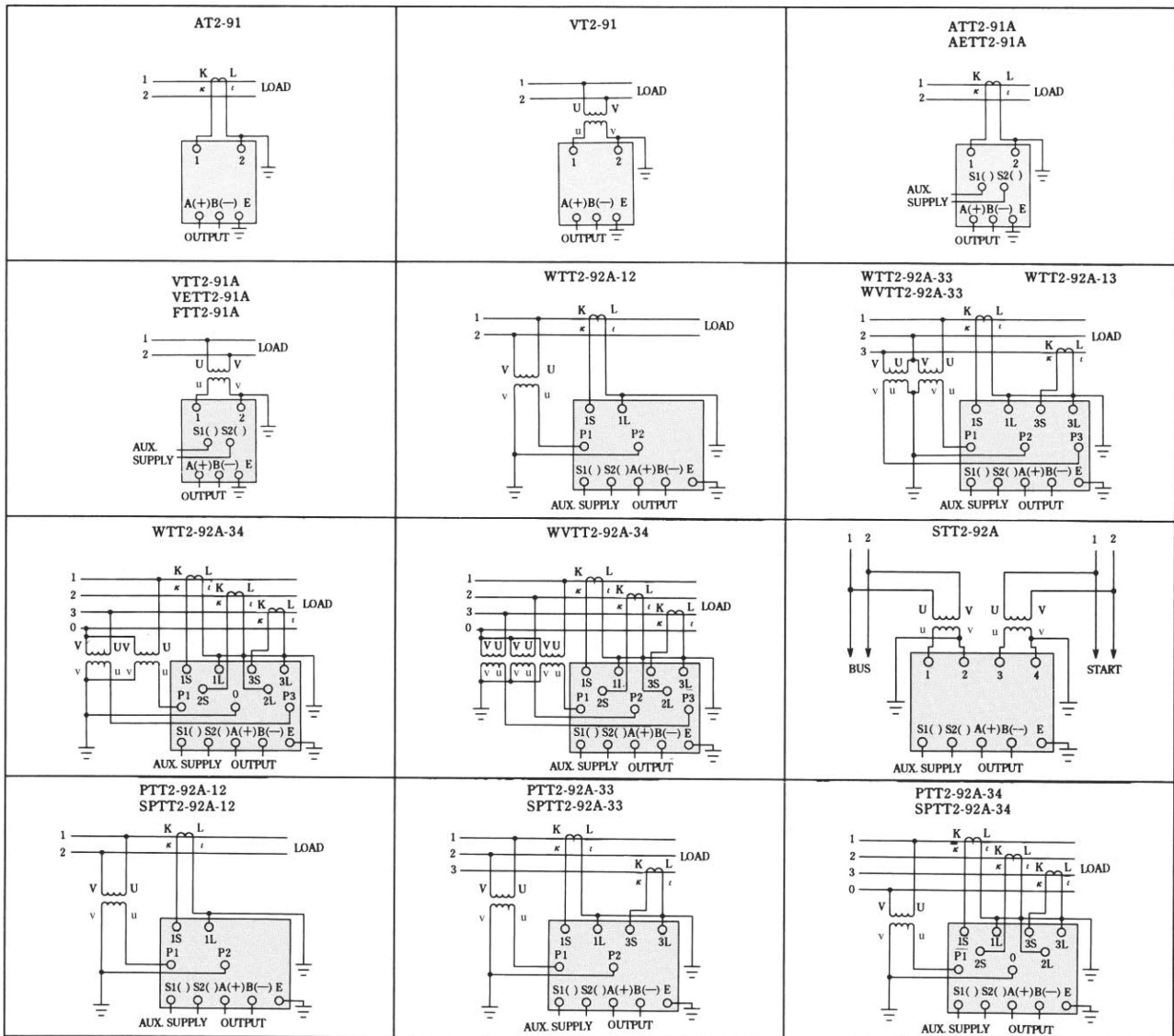
Please inform us of type code, specification and quantity.



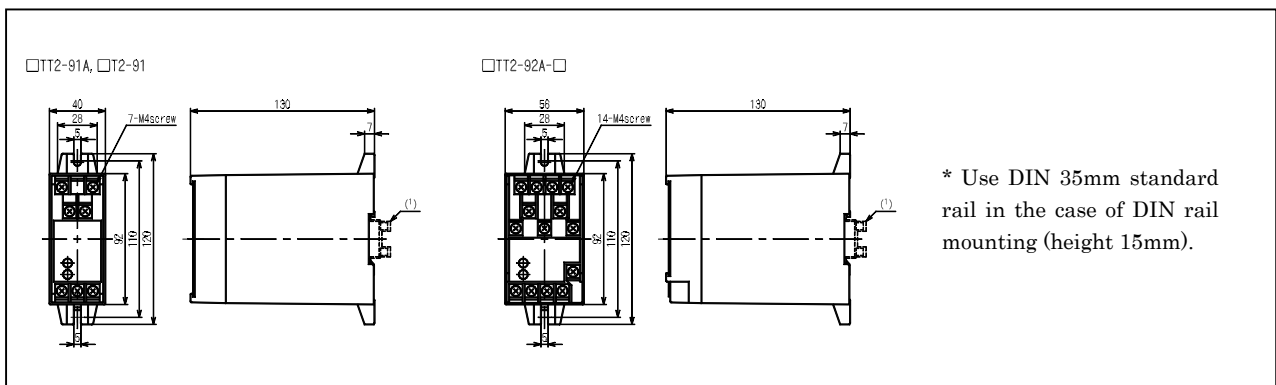
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SMALL SIZED AC TRANSDUCER CONSTANT VOLTAGE/CURRENT TYPE 90 SERIES

■ **CONNECTION DIAGRAM** (in the case of DC auxiliary supply, connect S1 as +, S2 as -)



■ **DIMENSIONS** (mm) See the connection diagram above for terminal arrangement



■ **PURCHASE SPECIFICATION**

<p>1. Type;</p> <p>2. Input (rated voltage / current / frequency);</p> <p>3. Output (load resistance);</p>	<p>4. Auxiliary supply;</p> <p>5. Quantity;</p>
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