

# *§Small-sized plug-in transducers§*

2-outputs type

AC Current Transducer

FWAT

## Application

Converts AC current in an electric power system into a DC signal in proportion to input. 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 signal directly to a distant place. Because this transducer can extract two insulated outputs, a single unit can do control and monitor.

Up to 16 units can be housed in an installation base.

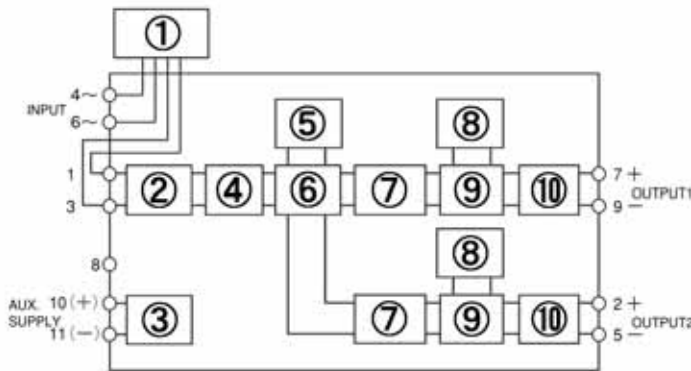


29.5 × 76 × 125mm/180g

## Feature

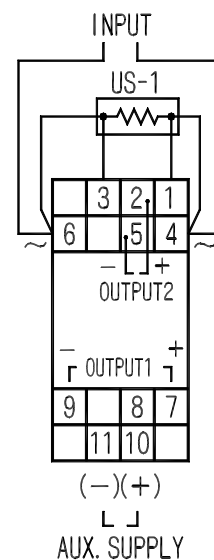
1. Compact and high withstand voltage.
2. Withstand voltage between input/output/auxiliary supply/outer case is AC2, 000V (50/60Hz) for 1 min..
3. Withstand voltage between outputs is AC500V (50/60Hz) for 1 min..
4. Constant voltage/current output type. No need to adjust the product if it operates within load resistance range.
5. A LED can confirm status of electric power applied.
6. Zero/span of 1st and 2nd output can be adjusted individually. ( $\pm 2\%$  adjustable)
7. Because the device is RMS value operation type, it can also be used with a distorted waveform or a SCR waveform.
8. Current transformer does not open even if the device is pulled out from a hot line.

## Block Diagram



- ① Shunt resistance unit
- ② RMS value converter circuit
- ③ Insulated power source circuit
- ④ Smoothing circuit
- ⑤ Oscillating circuit
- ⑥ Pulse width modulation circuit
- ⑦ Photo coupler insulation
- ⑧ Reference voltage
- ⑨ Pulse width demodulation circuit
- ⑩ Output circuit

## Connection diagram (socket)



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## Specification

How to specify      Type name      Specification code

FWAT -   X     0

* Kind of specification	Input	1 <sup>st</sup> output (load resistant)	2 <sup>nd</sup> output (load resistant)	Auxiliary supply	Power fuse	Common specification
②: 11-pin socket (FW11) ③: Installation base use FSBS-□□□N use FWBS-□□□N use ④: Installation base use (Power switch built-in is possible.) FWBA-□□□N use	①: AC0-1A ②: AC0-5A  ⑦: other than those above *1 (See product range)	①: DC0-100mV ( 200 ) ②: DC0-1V ( 200 ) ③: DC0-5V ( 600 ) ④: DC0-10V ( 2k ) ⑤: DC1-5V ( 600 ) ⑥: DC0-1mA ( 10k ) ⑦: DC0-5mA ( 2k ) ⑧: DC0-10mA ( 1k ) ⑨: DC0-16mA ( 600 ) ⑩: DC1-5mA ( 3k ) ⑪: DC4-20mA ( 750 ) ⑫: other than those above *1 (See product range)	①: DC0-100mV ( 200 ) ②: DC0-1V ( 200 ) ③: DC0-5V ( 1k ) ④: DC1-5V ( 1k ) ⑤: DC0-1mA ( 7k ) ⑥: DC0-5mA ( 1.4k ) ⑦: DC0-10mA ( 700 ) ⑧: DC0-16mA ( 430 ) ⑨: DC1-5mA ( 1.4k ) ⑩: DC4-20mA ( 350 ) ⑫: other than those above *1 (See product range)	⑬: AC/DC80-264V Rated Voltage AC100/110V 50/60Hz AC200/220V 50/60Hz DC100/110V ⑭: DC24V (DC19-30V)	①: without fuse ②: with fuse	Conversion accuracy: ± 0.5%  Temperature characteristics: 0.25%/10  Response time: 0.25s/90%  Consumption VA At 5A input: 0.3VA At 1A input: 0.1VA At AC110V: 4.5VA At AC220V: 5.5VA At DC110V: 2.5W At DC24V: 2.5W  Weight: Without socket: approx.130g With socket: approx.180g

\*1 Consult with us for specification other than those indicated in the table above.

Note1: a purpose-built shunt resistance unit is attached to each kind of product as an accessory. The shunt and the product have identical numbers, and make sure to confirm the numbers before use. If the numbers are different, it may result in a big error.

Note2: Wiring of shunt resistance unit must be implemented in accordance with connection diagram. Improper wiring or not using a shunt resistance unit may result in open of current transformer (CT) and lead to a trouble.

**\* In the [kind of specifications]**

② A FW11 shunt resistance unit and a socket (FW11) shall be attached if 11-pin socket was specified. This shunt resistance unit is for exclusive use of FW11 and can not be used in other specification.

③ An installation base shunt resistance unit shall be attached if installation base was specified. This shunt resistance unit is for exclusive use of installation base and can not be used in other specification. There is no socket attached for installation base.

### Product Range (including special handling)

Input	1 <sup>st</sup> Output	2 <sup>nd</sup> Output
Input current AC0- (100mA-6A)	Current output: 0- (1mA-20mA) Voltage output: 0- (10mV-10V)	Current output: 0- (1mA-20mA) Voltage output: 0- (10mV-10V)

Input current other than 1A and 5A is subject to special handling.

2nd output: output more than 5.1V but less than 10V is subject to special handling. (Load current 2mA)