DC POWER TRANSDUSER

DWP1 -□□□□□

DWP1-100F2
(80×50×121mm/350g)

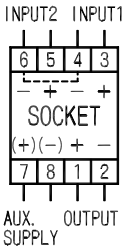
■ Use

Outputs a DC signal in proportion to DC power in an electric power system.

■ Features

1. High noise rejection ratio both in normal mode and common mode.
2. Because the product makes various kinds of outputs such as a DC current signal for industrial instrumentation, it can be used as a direct input to a computer or other industrial instruments.
3. Withstand voltage between electric circuit and outer case, input/ output and auxiliary supply is AC1, 500V (50/60Hz), complete insulation for 1 minute, or AC1, 500V (50/60Hz) for 1 minute between input and output.
4. ⊖ of voltage input 1 and the ⊖ of current input 2 are conducted inside the product. Make sure the connection is a minus common.
5. Impulse withstands voltage 5kV, 1.2/50μs (between electric circuit and outer case), and positive/ negative polarity 3 times each is guaranteed.

■ Connection diagram



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

■ Specification

Power	Power input 1 (input resistance)	Power Input 2 (input resistance)	Output (load resistance)	Auxiliary supply
1 :K=1 When Voltage V × Current A= Power W Product which full power= 100% output 0 :other than those above [other than K = 1] *Range of intrinsic sensitivity Power W = K (voltage V × current A) K = 0.6-1.2	A : DC0-100mV (approx.1MΩ) B : DC0-1V (approx.1MΩ) C : DC0-5V (approx.1MΩ) D : DC0-10V (approx.1MΩ) 0 : other than those above *When using primary voltage as a direct input, voltage which is more than 100V but less than 600V needs an external box DM-1 as □V/1mA.	1 : DC0-1mA (approx.100Ω) 2 : DC0-5mA (approx.100Ω) 3 : DC0-10mA (approx.100Ω) 4 : DC 0-20mA (approx.100Ω) 0 : other than those above [In the case of a shunt input] *It is 50mVMIN in the case of a shunt input.	1 : DC0-100mV (≧200Ω) 2 : DC0-1V (≧200Ω) 3 : DC0-5V (≧1kΩ) 4 : DC 0-10V (≧2kΩ) 5 : DC1-5V (≧1kΩ) A : DC0-1mA (≦10kΩ) B : DC0-5mA (≦2kΩ) C : DC0-10mA (≦1kΩ) D : DC0-16mA (≦600Ω) E : DC1-5mA (≦3kΩ) F : DC4-20mA (≦750Ω) 0 : other than those above	1 : AC100V±10%, 50/60Hz 2 : AC110V±10%, 50/60Hz 3 : AC200V±10%, 50/60Hz 4 : AC220V±10%, 50/60Hz 5 : DC24V±10% 0 : other than those above
	⊖ of input 1 and input 2 are conducted inside the product.			Common specification
				Tolerance: ±0.5% Response time: ≦0.5sec/99% Consumption VA: AC power source:4.5V DC power source:5W Weight: AC power source:700g DC power source:350g

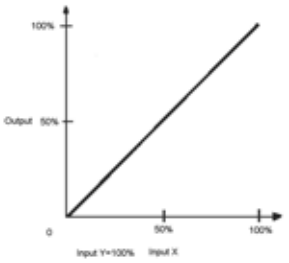
●Open of current output: even if the current output terminal is used in a state of regular open, there is no problem. Also, a voltage of approx. 25V occurs on the output terminal.

● Operational expression

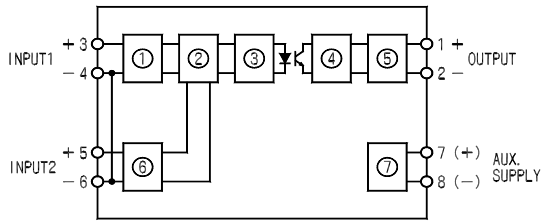
Maximum W (V×A=rated W)
Input1: V
Input2: A
Output: OUT (0-100% output)

$$\text{Output value} = \text{Constant number K} \times \frac{\text{input V} \times \text{input A}}{\text{Maximum W}} \times \text{Rated output}$$

$$\text{K : When } \underbrace{\text{rated V} \times \text{rated A}}_{\text{Rated W}} = \text{maximum W, K=1.}$$



■ Block diagram



①Input circuit
②Multiplying circuit
③Pulse width modulation circuit
④Pulse width demodulation circuit
⑤Output circuit
⑥Input circuit
⑦Insulated power source circuit

■Purchase specifications

●Item to specify

DWP1 - [1] [0] [0] [F] [2]

- [1] Power
- [0] Input 1
- [0] Input 2
- [F] Output
- [2] Auxiliary supply