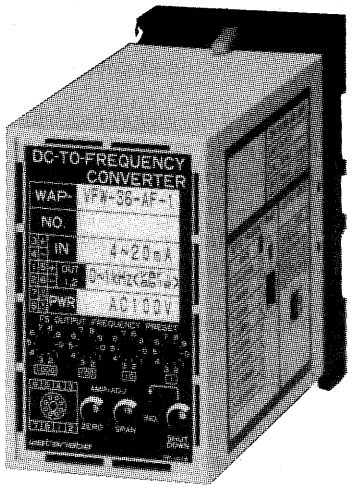
DC-TO-FREQUENCY CONVERTER (FREQUENCY SETTING TYPE/2 ISOLATED OUTPUTS) WVP-VFW



50 (W) x 96 (H) x 125.5 (D) mm Approx. 400 g

Features

- Output frequency can be set to any value over a wide range.
- Delivers two independent and isolated output signals from one input signal.
- The output pulses are compatible with various types of counters.
- The operation point of the shutdown function for excessively low input signals can be adjusted via a trimmer, and its operating state can be monitored via an LED indicator lamp.
- Its input, 1st output, 2nd output and power supply are isolated from each other, with a dielectric strength of 2 kV.
- Two types are available: one for AC power supply and the other for DC power supply.

Major Applications

- Conversion of electromagnetic flow meter output signals into pulses.
- Integration of electric energy, current, quantity of heat, amount of exposure, quantity of vapor deposition, etc.

This plug-in converter takes in a voltage or current signal and outputs a pulse train signal having a frequency that is proportional to the input analog value. The user can easily set the output frequency to the desired value using digital switches. In addition, the converter can deliver two mutually isolated signals from one input signal.

Model WVP - VFW - □□ A □ - □

Initial preset output frequency □□□□□□ Hz•fs

Specify the desired output frequency (pulse/minute · fs or pulse/hour·fs are also acceptable). The converter will be set to the specified value at the factory.

VFW | DC/Pulse converter basic model

	Input Signal	Input Resistance
10	DC 0–10 mV	1 MΩ
11	DC 0–100 mV	1 MΩ
12	DC 0–1 V	1 MΩ
13	DC 0–5 V	1 MΩ
14	DC 1–5 V	1 MΩ
15	DC 0–10 V	1 MΩ
16	DC 0–50 mV	1 MΩ
17	DC 0–60 mV	1 MΩ
30	DC 0–10 μA	1 KΩ
31	DC 0–100 μA	100 Ω
32	DC 0–1 mA	100 Ω
33	DC 0–10 mA	50 Ω
34	DC 0–16 mA	50 Ω
35	DC 0–20 mA	50 Ω
36	DC 4–20 mA	50 Ω
99	Other than the above (Please consult with us.): Over 10 mV·fs up to 300 V·fs Over 10 μA·fs up to 50 mA·fs	

Maximum frequency	A	1 KHz

	Power Supply
1	AC 100 V ± 10%, 50/60 Hz
2	AC 200 V ± 10%, 50/60 Hz
3	DC 24 V ± 10%
4	AC 110 V ± 10%, 50/60 Hz
5	AC 220 V ± 10%, 50/60 Hz

	1st Output Signal		
E	One-shot non-contact output (for driving AC/DC electromagnetic counter) ON-time: 100 msec		ON-voltage: 2 V (max.) ON-current: 500 mA or less Operating circuit voltage: 200 VDC, 130 VAC or less
F	Selectable via DIP Switches	Open-collector output	30 VDC, 30 mA or less ON-voltage: 0.4 V or less
		Voltage-pulse output	[1]: 5 V or 12 V (selected via DIP switches) Internal resistance: 620 Ω [0]: 0.4 V or less
G	Non-voltage contact output (max. 5 Hz)		Rated control capacity DC 24 V, 0.1 A (max.) DC 10 mV, 10 μA (min.)

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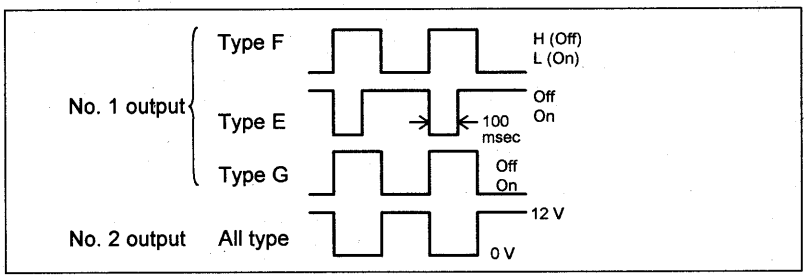
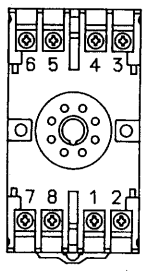
Specification

Input signal:	DC voltage, DC current
1st output signal:	Output of Type E: One-shot output of approx. 100 ms ON-time Output of Type F: Rectangular wave with 50% duty Output of Type G: Non-voltage contact output with 50% duty Service life of contacts: 100 million operations (mechanical) and 200,000 operations (electrical)
2nd output signal:	12 V pulse signal with 50% duty, isolated from the 1st output signal
Accuracy:	±0.1%·fs (at 23°C)
Output frequency:	0.0001 Hz·fs to 1 KHz·fs, freely variable through the front panel
Maximum frequency setting:	The desired maximum output frequency can be specified by setting the effective numbers using the decimal 4-digit digital switches located on the front panel and the exponent using the digital switches located on the side panel.
Response time:	1 ms + 1/fout, in the case of a voltage input of 1 V·fs to 10 V·fs or a current input of 20 mA·fs to 50 mA·fs 10 ms + 1/fout, in other cases than the above fout: Output frequency
Operating temperature and humidity:	-5 to +55°C, 90% RH or less (without condensation)
Influence of ambient temperature:	±0.2%·fs/10°C
Insulation resistance:	100 MΩ or more with a 500 VDC megger between the input and output terminals, and between the 1st output and 2nd output
Dielectric strength:	2,000 VAC for 1 minute between the input and output terminals, between 1st output and 2nd output, and between the input/output terminal and power supply terminal
Power consumption:	Approx. 5 VA (AC), approx. 120 mA (DC)
Output shutdown:	This function forcibly cuts off the output in cases where input signal falls below a preset value. The operation point can be set to 0–10%·fs by a trimmer, and the operation can be monitored via an LED indicator lamp. The lamp comes on whenever the output is cut off.
Zero & span adjustment:	±5%·fs each (three-turn trimmer)

Output Waveform



Explanation of Terminals



No.	Symbol		Description
1	OUTPUT	+	1st output
2		-	
3	INPUT	+	Input signal
4		-	
5	OUTPUT2	-	2nd output
6		+	
7	POWER	U (+)	Power supply
8		V (-)	