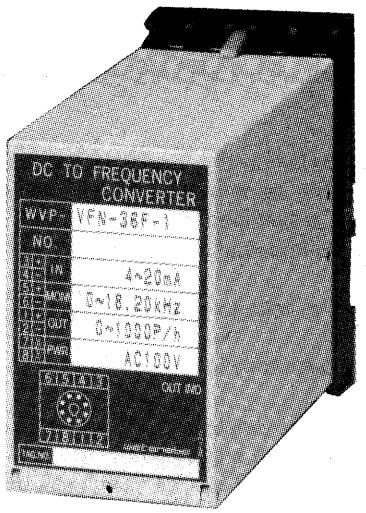


50 (W) x 96 (H) x 125.5 (D) mm Approx. 400 g

This converter takes in an analog current or voltage, and outputs a pulse having a frequency that is proportional to its input value. This converter is highly suitable for adding up analog flow rate signals or electrical energy. Its output signal form is compatible with electronic or electromagnetic counters. The converter has its input and output isolated by a photocoupler.

Features

- The output pulse frequency can be specified between 0.00278 Hz·fs (10 pulses/h·fs) and 32 KHz·fs.
- Equipped with an operation indicator LED synchronized with the output pulse.
- The shutdown value can be set freely (0–10%·fs).
- An LED indicates the shutdown operation.
- Plug-in design enables mounting on DIN rails or panel installation.

Models WVP-VF and WVP-VS have been modified to this model.

Specify the desired output frequency.

Model WVP-VFN-□□ □-□ 0-□ Hz•fs / pulse/min•fs / pulse/h•fs

VFN	DC-to-frequency converter

	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

	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 0–5 V	1 MΩ
15	DC 0–10 V	1 MΩ
16	DC 0–50 mV	1 MΩ
17	DC 0–60 mV	1 MΩ
31	DC 0–100 μA	100 Ω
32	DC 0–1 mA	100 Ω
33	DC 0–10 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 20 mA·fs	

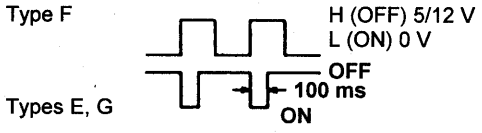
	Output Signal		
E	One-shot non-contact output For driving AC/DC electromagnetic counters ON-time: 100 msec (Output frequency: Max. 5 Hz)		ON-voltage: 2 V (max.) ON-current: 500 mA or less Operating circuit voltage: 200 VDC, 130 VAC or less
F	Selectable via DIP Switches	Open-collector output	30 VDC, 30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

watanabe WATANABE ELECTRIC INDUSTRY Co., Ltd.
6-16-19 Jinguumae Shibuya-Ku, Tokyo, Japan 150-0001 Tel 03-3400-6141 Fax 03-3409-3156

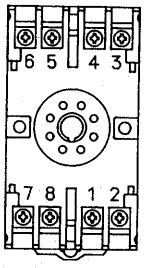
Specification

Input signal:	DC voltage, DC current
Output signal:	Pulse frequency
–Type E:	One-shot output of approx. 100 msec ON-time.
–Type F:	Rectangular wave with 50% duty.
–Type G:	One-shot output of approx. 100 msec ON-time. Service life of contacts: Mechanical: 100 million operations Electrical: 200,000 operations
Output frequency:	0.00278 Hz·fs (10 pulses/h) to 32 KHz·fs
Monitor output:	For check of input, and zero & span adjustment of output
Accuracy:	±0.1%·fs (at 23°C)
Response time:	Inputs of less than 1 V·fs and less than 20 mA·fs: 10 msec + 1/fout (fout: Output frequency) 1 msec + 1/fout for other than the above
Zero & span adjustment:	±5%·fs each
Influence of ambient temperature:	±0.15%·fs/10°C
Isolation:	Between the input/monitor, output and power supply terminals
Insulation resistance:	100 MΩ or more with a 500 VDC megger between the input/monitor, output and power supply terminals
Dielectric strength:	2,000 VAC for 1 minute between the input/monitor, output and power supply terminals
Operating temperature and humidity:	-5 to +55°C, 90% RH or less (without condensation or icing)
Warm-up time:	30 minutes (until attaining the prescribed accuracy) The function starts working within 2 seconds of power-on.
Supply voltage:	100/110/200/220 VAC, 50/60 Hz (to be specified), or 24 VDC ± 10%
Power consumption:	Approx. 4.5 VA (AC), approx. 120 mA (24 DC)
Output shutdown:	This function forcibly cuts off output when the input signal falls below a preset value. The operation point is set to 0–10%·fs by a trimmer, and the operation can be monitored by an indicator LED.

Output Waveform



Explanation of Terminals



No.	Symbol		Description
1	OUTPUT	+	Output signal
2		-	
3	INPUT	+	Input signal
4		-	
5	MONITOR	+	Monitor Terminal
6		-	
7	POWER	U (+)	Power supply
8		V (-)	