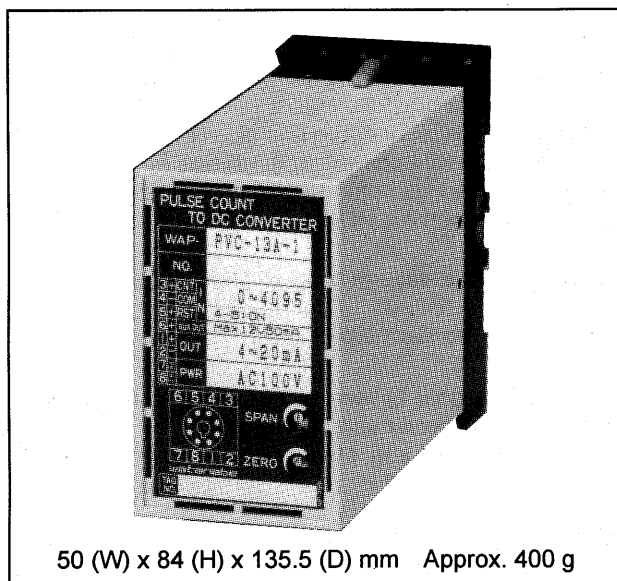


# PULSE INTEGRATING/DC CONVERTER (PULSE ACCUMULATOR)

WAP-PVC/PVH



50 (W) x 84 (H) x 135.5 (D) mm Approx. 400 g

This plug-in type signal converter counts the number of input pulses and delivers a DC signal proportional to the integrated value. It is extremely suitable for applications where signals of flow rates, revolutions or displacements, detected in the form of pulses, have to be converted into analog signals corresponding to integrated flow rates, cumulative revolutions or cumulative distances for subsequent recording on chart recorders or feeding to computer systems.

## Features

- Can be combined with nearly every type of pulse pickup available in the markets.
- Delivers signals with excellent linearity and repeatability.
- Has its input, output and power supply isolated from one another with a dielectric strength of 2,000 VAC.
- Small-sized plug-in type, which is attached to or detached from DIN rails by a one-touch action.

Model WAP -  -  -  -

PVC	Type that automatically resets the output on overflow.
PVH	Type that holds the output on overflow.

Input Signal	
11	ON-OFF pulse (compatible with non-voltage contacts, open collector) 6 V at OFF, 1 mA at ON, residual voltage: 0.7 V or less
13	Voltage pulse input impedance 20 K $\Omega$ or more [1]: Over 3.5 V up to 30 V [0]: Below 1.5 V
99	Other than the above (Please consult with us.)

Rated number of pulses  Pulses/fs  
(Please specify the required max. count value.)

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

Output Signal		
		Allowable Load Resistance
A	DC 4–20 mA	750 $\Omega$ or less
B	DC 1–5 mA	3 K $\Omega$ or less
C	DC 2–10 mA	1.5 K $\Omega$ or less
D	DC 0–1 mA	15 K $\Omega$ or less
E	DC 0–10 mA	1.5 K $\Omega$ or less
F	DC 0–16 mA	937 $\Omega$ or less
G	DC 0–20 mA	750 $\Omega$ or less
H	DC 1–5 V	2.5 K $\Omega$ or more
J	DC 0–10 mA	10 K $\Omega$ or more
K	DC 0–100 mA	100 K $\Omega$ or more
L	DC 0–1 V	500 $\Omega$ or more
N	DC 0–5 V	2.5 K $\Omega$ or more
P	DC 0–10 V	5 K $\Omega$ or more
S	Other than the above (Please consult with us.): Voltage output 10 V or less Current output 20 mA or less	

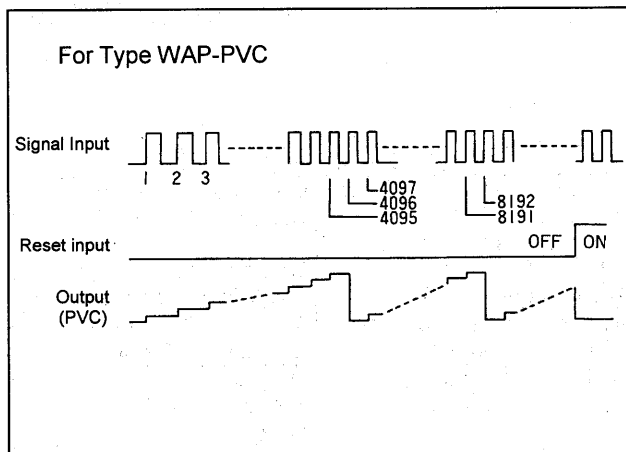
## Specifications

Count:	0 to max. 4,095
Input frequency:	max. 10 kHz
Input filter:	Can limit to max. 30 Hz, at the request.
Receiving resistor:	Can be built into the unit, if specified between 200 $\Omega$ and 1 K $\Omega$ .
Accuracy:	$\pm 0.2\% \cdot fs$ (at 23°C)
Response time:	Less than 1 msec
Reset input:	Resetting terminals are short-circuited. When the terminals are short-circuited, the unit ceases to count, and delivers the same signals as when it counts zero. Count reset within 0.5 sec after power is switched on.
Initial resetting:	
Allowable load resistance:	In case of voltage output, use the unit with a load current of 2 mA or less (1 $\mu$ A or less for an output below 1 V $\cdot fs$ ). In case of current output, use it with a voltage drop of 15 V or less between output terminals.
Operating temperature and humidity:	-5 to +60°C, 90% RH or less (without condensation)
Influence of ambient temperature:	$\pm 0.15\% \cdot fs/10^\circ C$
Insulation resistance:	100 M $\Omega$ or more with a 500 VDC megger between input and output terminals, and between input/output terminal and power supply terminal
Dielectric strength:	2,000 VAC for 1 minute between input and output terminals, and between input/output terminal and power supply terminal
Power consumption:	Approx. 5 VA (AC), 180 mA (DC)
Sensor power supply:	12 VDC $\pm 5\%$ , 50 mA (max.)
Zero & span adjustment:	Zero adjustment: $\pm 5\% \cdot fs$ (multi-turn trimmer) Span adjustment: $\pm 10\% \cdot fs$ (multi-turn trimmer)

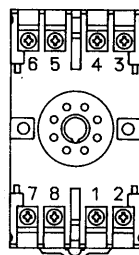
## Major Applications

- Recording of drilling depths on chart recorders.
- Conversion into analog signals of volume of raw materials fed in.

## Output Waveform



## Pin and Terminal Assignment



No.	Symbol	Description
1	OUTPUT	+
2		-
3	INPUT	+
4	COMMON	-
5	RESET	+
6	SENSOR	+
7	POWER	U (+)
8		V (-)