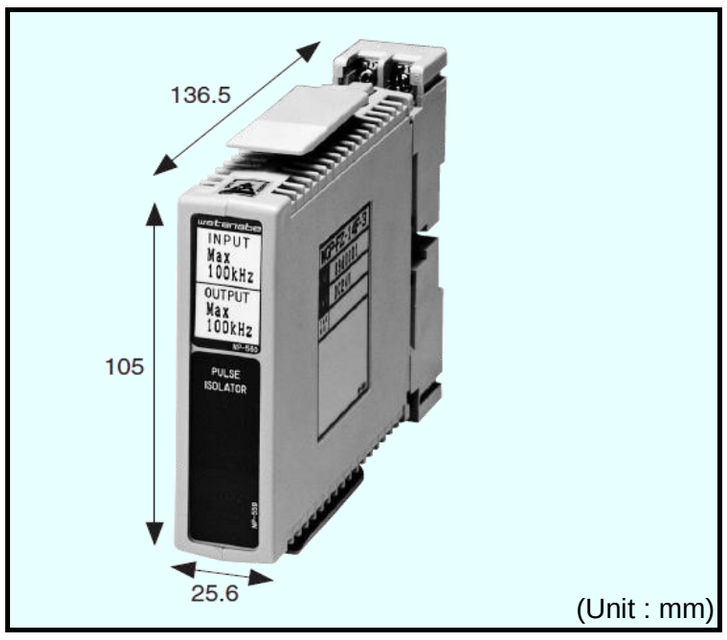
Pulse to DC Converter

WGP-FV



(Unit : mm)

This compact plug-in converter receives a pulse train signal
and converts into an analog signal that is proportional to its frequency.
It converts measurement signals detected in the form
of pulses (e.g., those for flow rate, revolution, and speed)
into optimum DC signals for measuring and control systems.

Features

★ Generates low-ripple signals with excellent linearity and repeatability
★ Dielectric strength of 2000Vac between input, output and power supply
★ Both AC and DC power supply are available
★ High density mounting and easy maintainance by thin plug-in structure

Ordering code

WGP- F V - □□ □ - □　　**Measuring frequency : 0 to □□□□ Hz FS (Full scale)**

Available range : 50hz FS to 100kHz FS

Code	Input	
12	Voktage pulse (Peak to peak voltage measurement type) 200mVp-p to 50Vp-p (0V on center)	
14	DIP Switch Selection	Voltage pulse Compatible with proximity switch and light switch [1]: 5 to 30V, [0]: -30 to 1.5V
		ON-OFF pulse Compatible with non-voltage contact and open collector 5V at OFF, 1mA at ON
99	Contact us for other than the above	

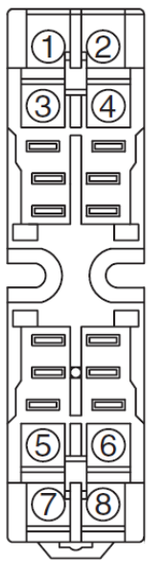
Code	Output 1	Allowable Load
A	4 to 20mAdc	750Ω or less
B	1 to 5mAdc	3kΩ or less
C	2 to 10mAdc	1.5kΩ or less
D	0 to 1mAdc	15kΩ or less
E	0 to 10mAdc	1.5kΩ or less
F	0 to 16mAdc	937Ω or less
G	0 to 20mAdc	750Ω or less
H	1 to 5Vdc	2.5kΩ or more
J	0 to 10mVdc	10kΩ or more
K	0 to 100mVdc	100kΩ or more
L	0 to 1Vdc	500Ω or more
N	0 to 5Vdc	2.5kΩ or more
P	0 to 10Vdc	5kΩ or more
S	Contact us for other than the above Current output 20mA or less Voltage output 10V or less	

Code	Power Supply
1	80 to 132Vac 50/60Hz Rated voltage : 100 to 120V
2	170 to 264Vac 50/60Hz Rated voltage : 200 to 240V
3	24Vdc ±10%
8	110Vdc ±10%

Specifications

Measuring frequency	50Hz FS to 100kHz FS (Duty 25 to 75%)
Accuracy	±0.1% FS (at 23°C)
Output ripple	±0.1% (p-p) FS
Allowable load resistance	Current output 15V or less of voltage drop between output Voltage output Load current 2mA or less For 1V FS or less of output the current is 1μA or less
Zero & span adjustment	±10% FS (3 turn trimmer)
Operating temperature	-5 to +55°C
Operating relative humidity	90% or less (non-condensing)
Temperature coefficient	±0.015% FS of span per °C
Isolation	Between input, output, and power supply
Insulation resistance	100MΩ or more with a 500Vdc megger Between input, output, and power supply terminal
Dielectric strength	2000Vac for 1 minute
Power consumption	Approx. 4.5VA (AC), Approx. 90mA (DC)
Power supply variation	24Vdc power supply : ±0.2% FS (within the range of rated voltage) Other : ±0.1% FS (within the range of rated voltage)
Dimensions	105(H) X 25.6(W) X 136.5(D)mm
Weight	Approx. 200g
Shutdown frequency	When the input frequency is excessively low as compared to the full scale, it is hard to completely remove ripples from the output. This converter forcibly cuts off the output when the input falls below the shutdown frequency.
Structure	Plug-in
Connection	M3.5 SEMS screw part of the base socket
Material of terminal screw	Chromated iron
Case color and material	Ivory, heat-resistant ABS resin(94V-0)
Mounting	DIN rail or wall surface

Terminal connections



No	Signal	Description
1	INPUT(+)	Input
2	INPUT(-)	
3	NC	No connection
4	NC	No connection
5	OUTPUT(+)	Output
6	OUTPUT(-)	
7	POWER U(+)	Power Supply
8	POWER V(-)	

★ Response time and Shutdown frequency

Measureing frequency	Response time	Shutdown frequency
50 to 100Hz FS	Approx. 2sec	Approx. 2.5Hz sec
101 to 200Hz FS	Approx. 1sec	Approx. 5Hz sec
201 to 500Hz FS	Approx. 0.5sec	Approx. 10Hz sec
501 to 10kHz FS	Approx. 0.2 sec	Approx. 25Hz sec

∗ Specification is subject to change without notice