

This compact plug-in converter receives a pulse train signal and converts into an analog signal that is proportional to its frequency, and provides an isolated output. 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
- ★ Easy to maintain by plug-in structure
- ★ RoHS compliant

## Ordering code

WSP- **FV** - [ ] [ ] - [ ] [ ]

Measuring frequency : 0 to [ ] Hz FS (Full scale)

⚠ Please specify measuring frequency in the range of 50Hz FS to 100kHz FS

Code	Input
14	Voltage pulse Compatible with proximity switch and light switch [1]: 5 to 30V, [0]: -30 to 1.5V Input impedance: 20kΩ or more 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	Allowable Load
A	4 to 20mA <sub>dc</sub>	750Ω or less
B	1 to 5mA <sub>dc</sub>	3kΩ or less
D	0 to 1mA <sub>dc</sub>	15kΩ or less
E	0 to 10mA <sub>dc</sub>	1.5kΩ or less
G	0 to 20mA <sub>dc</sub>	750Ω or less
H	1 to 5V <sub>dc</sub>	1kΩ or more
J	0 to 10mV <sub>dc</sub>	10kΩ or more
K	0 to 100mV <sub>dc</sub>	100kΩ or more
L	0 to 1V <sub>dc</sub>	200Ω or more
N	0 to 5V <sub>dc</sub>	1kΩ or more
P	0 to 10V <sub>dc</sub>	2kΩ or more
S	Contact us for other than the above Current output 20mA or less Voltage output 10V or less	

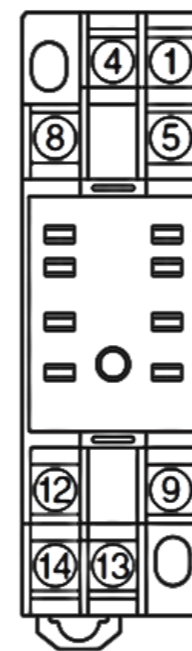
Code	Test Report
X	None
T	With Test report

Code	Power Supply
A	90 to 264Vac 50/60Hz
D	10.8 to 26.4V <sub>dc</sub>
8	90 to 121V <sub>dc</sub>

## 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 5mA or less For 1V FS or less of output the current is 1μA or less
Zero & span adjustment	±5% FS (1 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 500V <sub>dc</sub> megger Between input, output, and power supply terminal
Dielectric strength	2000Vac for 1 minute
Power consumption	Approx. 5.6VA (AC), Approx. 70mA (24V <sub>dc</sub> )
Power supply variation	±0.1% FS (within the range of rated voltage)
Dimensions	84(H) X 23(W) X 106.5(D)mm
Weight	Approx. 130g
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 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
4	INPUT(-)	
5	INPUT(+)	
8	NC	No connection
9	OUTPUT(+)	Output
12	OUTPUT(-)	
13	POWER U(+)	Power Supply
14	POWER V(-)	

\* Specification is subject to change without notice