

# General Specifications

Linearizer

## 1. GENERAL

This signal conditioner converts nonlinear signals generated by analyzers and noise meters, etc. to linear current or voltage signals. The instrument will approximate 31 polygonal lines maximum.

- Incorporation of one-chip microcomputer provides high efficiency and superior performance.
- Use of Handy Terminal allows easy on-site zero and span adjustment, and I/O monitoring.

## 2. SPECIFICATIONS

IO Specifications	
Input signal	1~5VDC (non linear)
Input resistance	1M $\Omega$ (100k $\Omega$ when power off)
Input computation function	Polygonal line approximation
Polygonal point setting condition	-10% $\leq$ (X <sub>0</sub> ~X <sub>31</sub> ) $\leq$ 110% -10% $\leq$ (Y <sub>0</sub> ~Y <sub>31</sub> ) $\leq$ 110% X <sub>0</sub> <X <sub>1</sub> <...<X <sub>30</sub> <X <sub>31</sub> Y <sub>0</sub> <Y <sub>1</sub> <...<Y <sub>30</sub> <Y <sub>31</sub> X <sub>0</sub> ~X <sub>31</sub> : Input polygonal point, Y <sub>0</sub> ~Y <sub>31</sub> : Output polygonal point
Permissible applied voltage	$\pm$ 9V DC
Output signal	DC current or voltage signal
Zero point adjustment range	$\pm$ 1% of span
Span adjustment range	$\pm$ 1% of span
Standard performance	
Precision rating	$\pm$ 0.1% of span (when polygonal line gain is 1 max)
Response speed	200ms 63% response (10~90%)
Insulation resistance	100M $\Omega$ min (at 500V DC) between input-output-power supply (DC drive) input-output-power supply-ground (AC drive)
Voltage withstand	1500V AC/minute between input-output, input-power supply 500V AC/minute between output-power supply (DC drive) 1500V AC/minute between input-output-power supply-ground (AC drive)
Ambient temperature and humidity	Normal operating condition: 0~50°C, 5~90% RH Operating limit: -10~60°C, 5~95% RH Storage condition: -40~70°C, 5~95% RH (no condensation)
Power supply voltage	85~264V AC 47~63Hz, 24V DC $\pm$ 10%
Effect of power supply voltage fluctuation	$\pm$ 0.1% max of span per 85~264V AC or 24V DC $\pm$ 10% fluctuation
Effect of change in ambient temperature	$\pm$ 0.2% max of span per 10°C change in temperature
Current dissipation	24V DC 85mA (WH9A-1), 50mA (WH9V-1)
Power dissipation	100V AC 9VA (WH9A-2), 5VA (WH9V-2)
Mountings and dimensions	
Material	Case: ABS plastic
Boards	Both sides glass-epoxy
Mounting methods	Rack, wall, or DIN rail
Connection method	M4-screw terminals
External dimensions	72 x 48 x 127 mm (h x w x d)
Weight	DC drive: approx. 150g, AC drive : approx. 300g
Accessories	
Tag number labels: 1	M4 mounting screws: 4
Mounting blocks: 2	

WH9  -  -  \* B

TYPE NO.

OUTPUT SPECIFICATION

A: Current

V: Voltage

INPUT SIGNAL

6: 1~5V DC

OUTPUT SIGNAL

WH9A

A: 4~20mA DC

B: 2~10mA DC

C: 1~5mA DC

D: 0~20mA DC

E: 0~16mA DC

F: 0~10mA DC

G: 0~1mA DC

Z: (custom) current signal  
(24mA max)

WH9V

1: 0~10mV DC

2: 0~100mV DC

3: 0~1V DC

4: 0~10V DC

5: 0~5V DC

6: 1~5V DC

7: -10~+10V DC

0: (custom) voltage signal  
(±10V max)

POWER SUPPLY

1: 24V DC±10% 2: 85~264V AC

DUAL OUTPUT SPECIFICATIONS		
Model	1st Output (selectable)	2nd Output
WH9A	4~20mA DC	1~5V DC
	2~10mA DC	
	1~5mA DC	
	0~20mA DC	
	0~16mA DC	
	0~10mA DC	
	0~1mA DC	
WH9V	0~10mV DC	1~5V DC
	0~100mV DC	
	0~1V DC	
	0~10V DC	
	0~5V DC	
	1~5V DC	
	-10~+10V DC	

The JUXTA W Series allows dual output.

Enter/DO after the model code when ordering.

### High Voltage Withstand Specifications

The JUXTA W Series is also available in 2000V AC voltage withstand specifications. Contact your dealer for details.

### OUTPUT RESISTANCE AND PERMISSIBLE LOAD RESISTANCE

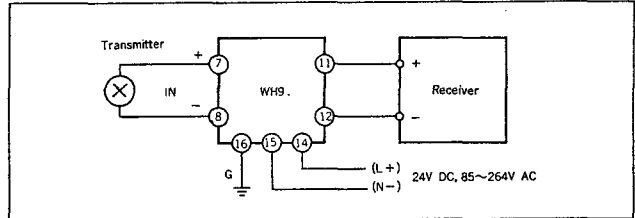
WH9A (DC Current Output)		
Output Signal	Output Resistance	Permissible Load Resistance
4~20mA DC	5MΩ min	0~750Ω
2~10mA DC		0~1500Ω
1~5mA DC		0~3000Ω
0~20mA DC		0~750Ω
0~16mA DC		0~900Ω
0~10mA DC		0~1500Ω
0~1mA DC		0~15kΩ
Others where I <sub>100</sub> =24mA max		

I<sub>100</sub>: 100% output current

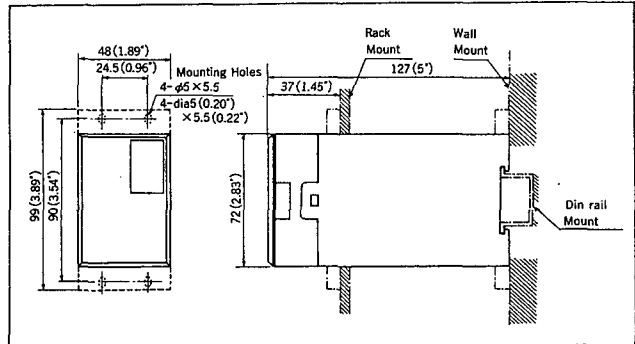
WH9V (DC Voltage Output)		
Output Signal	Output Resistance	Permissible Load Resistance
0~10mV DC	100Ω max	250kΩ min
0~100mV DC		250kΩ min
0~1V DC	1Ω max	2kΩ min
0~10V DC		10kΩ min
0~5V DC		2kΩ min
1~5V DC		2kΩ min
-10~+10V DC		10kΩ min
Others where V <sub>100</sub> =10V max	V <sub>100</sub> ≤ 100mV	250kΩ min
	V <sub>100</sub> > 100mV	1Ω max

V<sub>100</sub>: 100% output voltage

### WIRING DIAGRAM



### EXTERNAL DIMENSION



Subject to change without notice for grade up quality and performance