# JUXTA W Series General Specifications

Model : WH9A/V

JUXTA

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 | 1MΩ (100kΩ when power off) |
| Input computation function | Polygonal line approximation |
| Polygonal point setting condition | -10%≦(X0~X31)≦110%<br>-10%≦(Y0~Y31)≦110%<br>X0<X1<...X30<X31<br>Y0<Y1<...Y30<Y31<br>X0~X31: Input polygonal point, Y0~Y31: Output polygonal point |
| Permissible applied voltage | ±9V DC |
| Output signal | DC current or voltage signal |
| Zero point adjustment range | ±1% of span |
| Span adjustment range | ±1% of span |
| **Standard performance** | |
| Precision rating | ±0.1% of span (when polygonal line gain is 1 max) |
| Response speed | 200ms 63% response (10~90%) |
| Insulation resistance | 100MΩ min (at 500V DC) between<br>input~output~power supply (DC drive)<br>input~output~power supply~ground (AC drive) |
| Voltage withstand | 1500V AC/minute between input~output, input~power supply<br>500V AC/minute between output~power supply (DC drive)<br>1500V AC/minute between input~output~power supply~ground (AC drive) |
| Ambient temperature and humidity | Normal operating condition: 0~50°C, 5~90% RH<br>Operating limit: -10~60°C, 5~95% RH<br>Storage condition: -40~70°C, 5~95% RH<br>(no condensation) |
| Power supply voltage | 85~264V AC 47~63Hz, 24V DC±10% |
| Effect of power supply voltage fluctuation | ±0.1% max of span per 85~264V AC or 24V DC ±10% fluctuation |
| Effect of change in ambient temperature | ±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 | WH9V |
|---|---|
| A: 4~20mA DC | 1: 0~10mV DC |
| B: 2~10mA DC | 2: 0~100mV DC |
| C: 1~5mA DC | 3: 0~1V DC |
| D: 0~20mA DC | 4: 0~10V DC |
| E: 0~16mA DC | 5: 0~5V DC |
| F: 0~10mA DC | 6: 1~5V DC |
| G: 0~1mA DC | 7: –10~+10V DC |
| Z: (custom) current signal (24mA max) | 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<br>2~10mA DC<br>1~5mA DC<br>0~20mA DC<br>0~16mA DC<br>0~10mA DC<br>0~1mA DC | 1~5V DC |
| WH9V | 0~10mV DC<br>0~100mV DC<br>0~1V DC<br>0~10V DC<br>0~5V DC<br>1~5V DC<br>–10~+10V DC | 1~5V 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

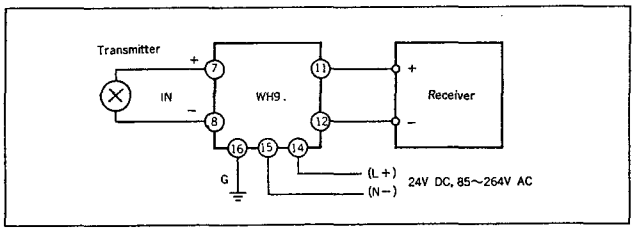
| WH9A (DC Current Output) | | |
|---|---|---|
| **Output Signal** | **Output Resistance** | **Permissible Load Resistance** |
| 4~20mA DC | 5MΩ min | 0~750Ω |
| 2~10mA DC | | 0~1500Ω |
| 1~ 5mA DC | | 0~3000Ω |
| 0~20mA DC | | 0~750Ω |
| 0~16mA DC | | 0~900Ω |
| 0~10mA DC | | 0~1500Ω |
| 0~ 1 mA DC | | 0~15kΩ |
| Others where $I_{100}$=24mA max | | (15/$I_{100}$)Ω max |

$I_{100}$ : 100% output current

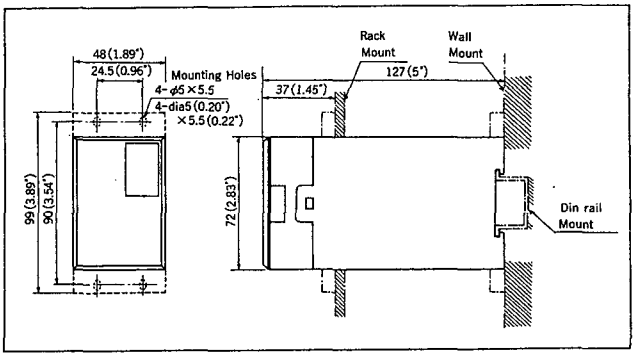
| WH9V (DC Voltage Output) | | | |
|---|---|---|---|
| **Output Signal** | | **Output Resistance** | **Permissible Load Resistance** |
| 0~10mV DC | | 100Ω max | 250kΩ min |
| 0~100mV DC | | | |
| 0~1V DC | | 1Ω max | 2kΩ min |
| 0~10V DC | | | 10kΩ min |
| 0~5V DC | | | 2kΩ min |
| 1~5V DC | | | 2kΩ min |
| –10~+10V DC | | | 10kΩ min |
| Others where $V_{100}$=10V max | $V_{100}$≦100mV | 100Ω max | 250kΩ min |
| | $V_{100}$>100mV | 1Ω max | 10kΩ min |

$V_{100}$ : 100% output voltage

### WIRING DIAGRAM




### EXTERNAL DIMENSION




Subject to change without notice for grade up quality and performance