

# JUXTA W Series

Model : WH1A/V

## General Specifications

Isolator

JUXTA

### 1. GENERAL

This isolator converts DC current signals or voltage signals to current or voltage signals.

### 2. SPECIFICATIONS

| IO Specifications                          |                                                                                                                                                                                          |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input signal                               | DC voltage or current signals                                                                                                                                                            |
| Measuring range                            | -10~+10V DC, span: 10mV min<br>where zero elevation is $\pm 50\%$ max of span                                                                                                            |
| Input resistance                           | 1 M $\Omega$ for voltage input. 100 $\Omega$ ~ 1k $\Omega$ for current input                                                                                                             |
| Permissible applied voltage                | $\pm 30$ V DC max                                                                                                                                                                        |
| Output signal                              | DC current or voltage signal                                                                                                                                                             |
| Zero point adjustment range                | $\pm 5\%$ of span                                                                                                                                                                        |
| Span adjustment range                      | $\pm 5\%$ of span                                                                                                                                                                        |
| Standard performance                       |                                                                                                                                                                                          |
| Precision rating                           | $\pm 0.1\%$ of span                                                                                                                                                                      |
| Response speed                             | 150ms 63% response (10~90%)                                                                                                                                                              |
| Insulation resistance                      | 100M $\Omega$ 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 $\pm 10\%$                                                                                                                                                    |
| 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 102mA (WH1A-1), 80mA (WH1V-1)                                                                                                                                                     |
| Power dissipation                          | 100V AC 10VA (WH1A-2), 6VA (WH1V-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                       |                                                                                                                                                                                          |
| Mounting blocks: 2                         | M4 mounting screws: 4                                                                                                                                                                    |

WH1- - - \*B

# TYPE NO. OUTPUT SPECIFICATION

A: Current

V: Voltage

## INPUT SIGNAL

|                            |                            |
|----------------------------|----------------------------|
| 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             |
| H: 10~50mA DC              | 0: (custom) voltage signal |
| Z: (custom) current signal | (±300V max)                |
| (150mA max)                |                            |

## OUTPUT SIGNAL

| WH1A                       | WH1V                       |
|----------------------------|----------------------------|
| 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 | 0: (custom) voltage signal |
| (24mA max)                 | (±10V max)                 |

## POWER SUPPLY

1: 24V DC±10% 2: 85~264V AC

### High Voltage Withstand Specifications

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

## DUAL OUTPUT SPECIFICATIONS

| Model | 1st Output (selectable)                                                               | 2nd Output |
|-------|---------------------------------------------------------------------------------------|------------|
| WH1A  | 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    |
| WH1V  | 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.

## OUTPUT RESISTANCE AND PERMISSIBLE LOAD RESISTANCE

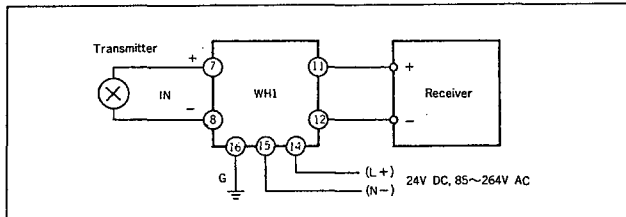
| WH1A (DC Current Output)                |                   |                             |
|-----------------------------------------|-------------------|-----------------------------|
| Output Signal                           | Output Resistance | Permissible Load Resistance |
| 4~20mA DC                               | 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 |                   | (15/I <sub>100</sub> )Ω max |

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

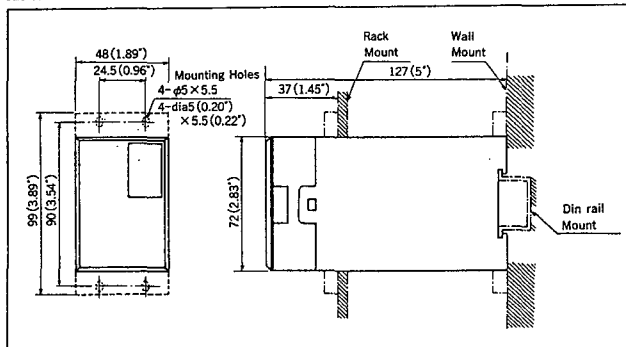
| WH1V (DC Voltage Output)             |                   |                             |
|--------------------------------------|-------------------|-----------------------------|
| Output Signal                        | Output Resistance | Permissible Load Resistance |
| 0~10mV DC                            | 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> ≤100mV | 100Ω max          | 250kΩ min                   |
| V <sub>100</sub> ≤10V max            | 1Ω max            | 10kΩ min                    |
| V <sub>100</sub> >100mV              |                   |                             |

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

## WIRING DIAGRAM



## EXTERNAL DIMENSION



Subject to change without notice for grade up quality and performance