

**General Specifications** Tachometer Transmitter

**1. GENERAL**

This signal conditioner converts AC voltage signals from electrical tachometers (tachogenerators) into current or voltage signals.

- AC/DC conversion is made by mean value.

**2. SPECIFICATIONS**

| IO Specifications                          |  |
|--|--|
| Input signal                               | 0~V <sub>100</sub> V AC (V <sub>100</sub> = 100% input voltage)<br>16 ≤ V <sub>100</sub> ≤ 150V AC   |
| Input frequency                            | 15Hz ≤ F <sub>100</sub> ≤ 1kHz (F <sub>100</sub> = 100% input frequency)   |
| Permissible over-input                     | 120% (continuous), 200% (1 minute)   |
| Output signal                              | DC current or voltage signal   |
| Zero point adjustment range                | ±5% of span  |
| Span adjustment range                      | ±5% of span  |
| Standard performance                       |  |
| Precision rating                           | ±0.3% of span (100% input, 30Hz min frequency range)   |
| Response speed                             | 2.4s 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 90mA (WD1A-1), 60mA (WD1V-1)  |
| Power dissipation                          | 100V AC 7VA (WD1A-2), 6VA (WD1V-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  |

WD1-1- \* B

TYPE NO.

OUTPUT SPECIFICATION

A: Current

V: Voltage

Input signals

1: AC voltage signals

OUTPUT SIGNAL

WD1A

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)

WD1V

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 |
|-------|---|------------|
| WD1A  | 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    |
| WD1V  | 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

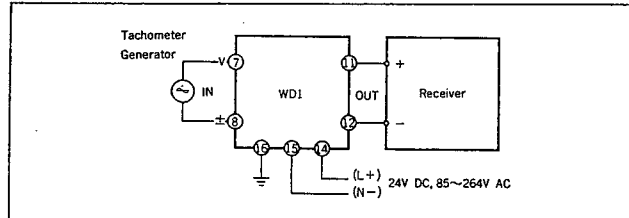
| WD1A (DC Current Output)                |                   |                             |
|---|-------------------|-----------------------------|
| Output Signal                           | Output Resistance | Permissible Load Resistance |
| 4~20mA DC                               | 5MΩ min           | 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

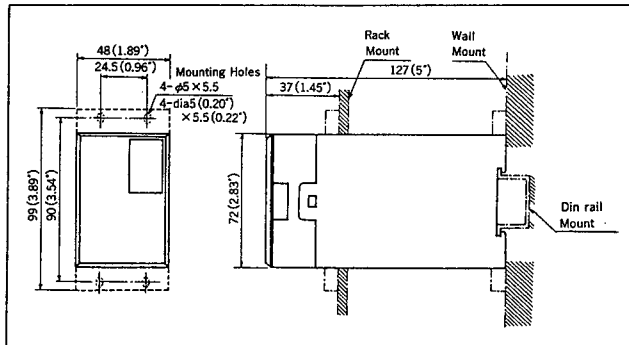
| WD1V (DC Voltage Output)             |                   |                             |
|--------------------------------------|-------------------|-----------------------------|
| Output Signal                        | Output Resistance | Permissible Load Resistance |
| 0~10mV DC                            | 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 <sub>100</sub> ≤100mV | 100Ω max          | 250kΩ min                   |
| V <sub>100</sub> >100mV              | 1Ω max            | 10kΩ min                    |

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

WIRING DIAGRAM



EXTERNAL DIMENSION



Subject to change without notice for grade up quality and performance