

JUXTA W Series

Model : WS1A/V

General Specifications

POT Transmitter

JUXTA

1. GENERAL

This signal conditioner converts the change in the resistance of potentiometer of motor operated valve or air duct dampers, etc. to current or voltage signals.

- Incorporation of one-chip microcomputer provides high efficiency and superior performance.
- Use of Handy Terminal allows easy on-site setting of full potentiometer resistance value, range change, burnout setting, zero and span adjustment, and I/O monitoring.

2. SPECIFICATIONS

IO Specifications	
Input signal	Potentiometer resistance change (3-wire type)
Measuring range	Full resistance: 100~2000Ω
Zero elevation	50% max of full resistance
Span	80~2000Ω (50% min of full resistance)
Input conductor resistance	10Ω max per wire (resistance value of each wire must be equal)
Measuring current	1mA
Output signal	DC current or voltage signal
Zero point adjustment range	±10% of span
Span adjustment range	±10% of span
Standard performance	
Precision rating	±0.1% of span
Response speed	200ms 63% response (10~90%)
Burnout	Specify UP, DOWN, or OFF. Burnout time is 60 secs max.
Insulation resistance	100MΩ 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 ±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 (WS1A-1), 50mA (WS1V-1)
Power dissipation	100V AC 10.5VA (WS1A-2), 6VA (WS1V-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	Range labels: 1
Mounting blocks: 2	M4 mounting screws: 2

TYPE NO. **WS1** - - - * **B/B**

OUTPUT SPECIFICATION

A: Current
V: Voltage

INPUT SIGNAL

I: Total resistance (100~2kΩ)
O: Total resistance 2kΩ min and 30kΩ max

OUTPUT SIGNAL

WS1A	WS1V
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

BURNOUT

U: UP
D: DOWN
N: OFF

DUAL OUTPUT SPECIFICATIONS		
Model	1st Output (selectable)	2nd Output
WS1A	4~20mA DC	1~5V DC
	2~10mA DC	
	1~5mA DC	
	0~20mA DC	
	0~16mA DC	
	0~10mA DC	
WS1V	0~1mA DC	1~5V DC
	0~10mV 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

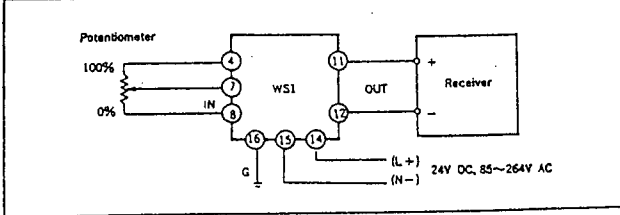
WS1A (DC Current Output)		
Output Signal	Output Resistance	Permissible Load Resistance
4~20mA DC	5MΩ min	0~750Ω
2~10mA DC		0~1500Ω
1~5mA DC		0~3000Ω
0~20mA DC		0~750Ω
0~16mA DC		0~900Ω
0~10mA DC		0~1500Ω
0~1mA DC		0~15kΩ
Others where I ₁₀₀ =24mA max		

I₁₀₀: 100% output current

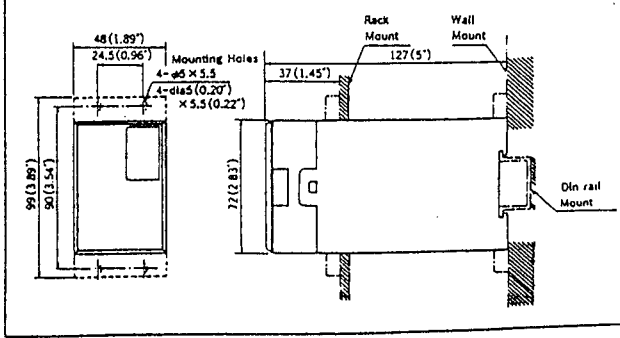
WS1V (DC Voltage Output)		
Output Signal	Output Resistance	Permissible Load Resistance
0~10mV DC	100Ω max	250kΩ min
0~100mV DC		250kΩ min
0~1V DC	1Ω max	2kΩ min
0~10V DC		10kΩ min
0~5V DC		2kΩ min
1~5V DC		2kΩ min
-10~+10V DC		10kΩ min
Others where V ₁₀₀ ≤100mV	100Ω max	250kΩ min
V ₁₀₀ >100mV	1Ω max	10kΩ min

V₁₀₀: 100% output voltage

WIRING DIAGRAM



EXTERNAL DIMENSION



Subject to change without notice for grade up quality and performance