

General

Specifications

Distributor (with Square Root Extractor)

1. GENERAL

This distributor with square root extractor converts differential pressure flow signals to linear signals in combination with 2-wire type transmitter.

- Incorporated in transmitter short-circuit protection
- Incorporated in low-cut circuit
- Incorporated in one-chip microcomputer for high efficiency and superior performance
- Use of Handy Terminal allows easy on-site zero and span adjustments and I/O monitoring

2. SPECIFICATIONS

IO Specifications	
Input signal	4~20mA DC from 2-wire transmitter
Input resistance	250Ω
Permissible applied voltage	40mA max
Transmitter power supply voltage	26.5±1.5V DC (with current limit circuit at 25~35mA)
Permissible conductor resistance	$RL \leq (20 - \text{minimum transmitter operating voltage})V / 0.02A (\Omega)$
Input compensation function	Square root computation: $Y = 2\sqrt{X-1} + 1 (V)$ (Y: output signal, and X: input signal)
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%)
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 110mA (WA5A-1), 75mA (WA5V-1)
Power dissipation	100V AC 10VA (WA5A-2), 6VA (WA5V-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

WA5 -A - * B

TYPE NO. _____

OUTPUT SPECIFICATION _____

A: Current
V: Voltage

INPUT SIGNAL _____

A: 4~20mA DC

Transmitter power supply : 25~28V DC

OUTPUT SIGNAL _____

WA5A

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)

WA5V

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
WA5A	4~20mA DC	1~5V DC
	2~10mA DC	
	1~5mA DC	
	0~20mA DC	
	0~16mA DC	
	0~10mA DC	
	0~1mA DC	
WA5V	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

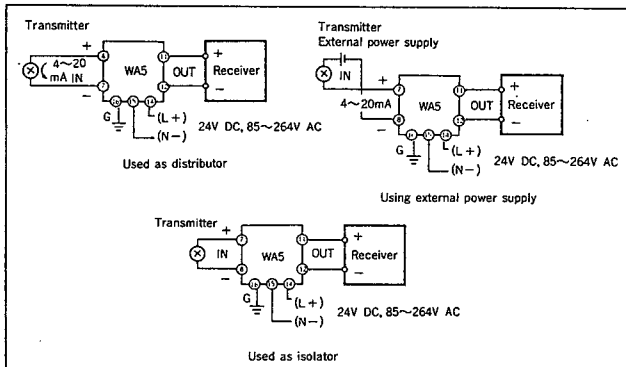
WA5A (DC Current Output)		
Output Signal	Output Resistance	Permissible Load Resistance
4~20mA DC	5MΩ min	0~750Ω
2~10mA DC		0~1500Ω
1~5mA DC		0~3000Ω
0~20mA DC		0~750Ω
0~16mA DC		0~900Ω
0~10mA DC		0~1500Ω
0~1mA DC		0~15kΩ
Others where I ₁₀₀ =24mA max		

I₁₀₀ : 100% output current

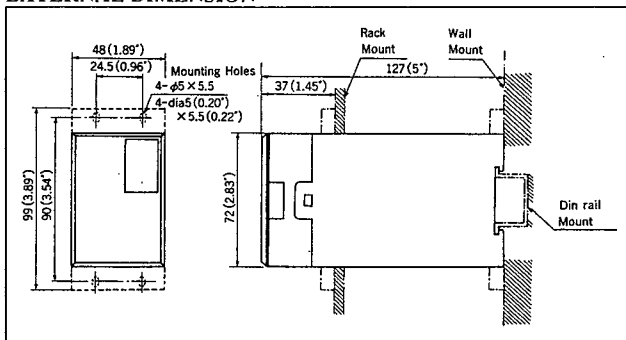
WA5V (DC Voltage Output)		
Output Signal	Output Resistance	Permissible Load Resistance
0~10mV DC	100Ω max	250kΩ min
0~100mV DC		
0~1V DC	1Ω max	2kΩ min
0~10V DC		10kΩ min
0~5V DC		2kΩ min
1~5V DC		2kΩ min
-10~+10V DC		10kΩ min
Others where V ₁₀₀ ≤100mV		100Ω max
V ₁₀₀ >100mV	1Ω max	10kΩ min

V₁₀₀ : 100% output voltage

WIRING DIAGRAM



EXTERNAL DIMENSION



Subject to change without notice for grade up quality and performance