

JUTXA F Series

General Specifications

Model : FR9A/V

JUTXA

Dew Point Transmitter

1. GENERAL

This signal conditioner functions as a dew-point sensor to convert dew point temperature into current or voltage signals.

- Incorporation of one-chip microcomputer provides high efficiency and superior performance.
- Use of Handy Terminal allows easy on-site zero and span adjustment, burnout selection, and I/O monitoring.

2. SPECIFICATIONS

IO Specifications	
Input signal	Ni resistance bulb of dew-point sensor (3-wire type)
Dew-point temperature measuring range	-45~60°C
Span	10°C min
Input conduct resistance	10Ω max
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	±0.2% of span or 0.1°C whichever greater (including linearization error)
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, input~power supply and output~power supply
Voltage withstand	1500V AC/minute between input~output, input~power supply 500V AC/minute between output~power supply
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	24V DC ±10% (ripple : 10% P-P max)
Effect of power supply voltage fluctuation	±0.1% max of span per 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 95mA (FR9A), 60mA (FR9V)
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 24 x 127 mm (h x w x d)
Weight	130g
Accessories	
Tag number label : x1	Range label : x1
Mounting blocks: x2	M4 mounting screws: x2

FR9□-□□ * B/B□

TYPE NO.

OUTPUT SPECIFICATION

A: Current

V: Voltage

INPUT SIGNAL

1: Industrial dew-point sensors

2: Meteorological dew-point sensors

OUTPUT SIGNAL

FR9A FR9V

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)

BURNOUT

U: UP

D: DOWN

N: OFF

POWER SUPPLY

24V DC±10%

OUTPUT RESISTANCE AND PERMISSIBLE LOAD RESISTANCE

FR9A (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 (15/I ₁₀₀)Ω max
Others where I ₁₀₀ =24mA max		

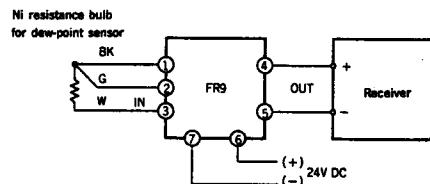
I₁₀₀ : 100% output current

FR9V (DC Voltage Output)

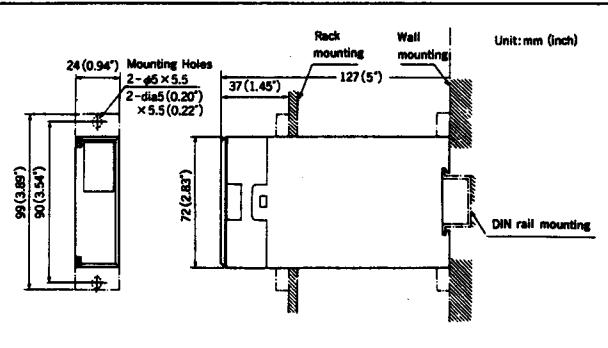
Output Signal	Output Resistance	Permissible Load Resistance
0~10mV DC	1Ω max	250kΩ min
0~100mV DC		2kΩ min
0~1V DC		10kΩ min
0~10V DC		2kΩ min
0~5V DC		2kΩ min
1~5V DC		10kΩ min
-10~-+10V DC		10kΩ min
Others where V ₁₀₀ ≤100mV	100Ω max	250kΩ min
V ₁₀₀ >100mV	1Ω max	10kΩ min

V₁₀₀ : 100% output voltage

WIRING DIAGRAM



EXTERNAL DIMENSION



Subject to change without notice for grade up quality and performance

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