JUXTA F Series General Specifications

Model : FM1A/V

mV Transmitter

JUXTA

1. GENERAL

This signal conditioner converts millivoltage signals to current or voltage signals.

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

2. SPECIFICATIONS

IO Specifications	
Input signal	DC potential difference
Measuring range	-100~+150mVDC
Input resistance	1MΩ (3kΩ when power off)
Zero elevation	±50mV max, and 300% max of span
Permissible applied voltage	-0.5V~+4.0V
Span	3~100mV DC (standard span: 10mV min)
Signal-source resistance	1kΩ max
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, 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 110mA (FM1A), 75mA (FM1V)
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 : x 1 Mounting blocks: x2	Range labels: x 1 M4 mounting screws: x2

FM1□-1□*B/B□

TYPE NO.

OUTPUT SPECIFICATION

A: Current

V: Voltage

INPUT SIGNAL

Input signal range:

1: DC potensial differential signals
−100~+150mV DC (when span=3mV min)

OUTPUT SIGNAL

FM1A	FM1V
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

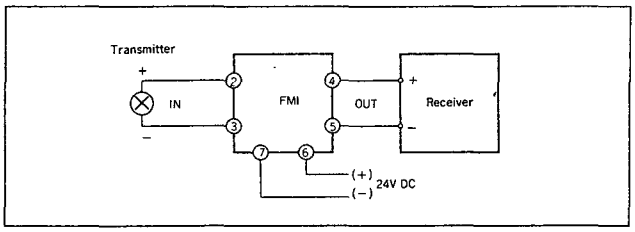
FM1A (DC Current Output)		
Output Signal	**Output Resistance**	**Permissible Load Resistance**
4~20mA DC	5MΩ min	0~750Ω
2~10mA DC		0~1500Ω
1~ 5mA DC		0~3000Ω
0~20mA DC		0~750Ω
0~16mA DC		0~900Ω
0~10mA DC		0~1500Ω
0~ 1 mA DC		0~15kΩ
Others where I_{100}=24mA max		(15/I_{100})Ω max

I_{100} : 100% output current

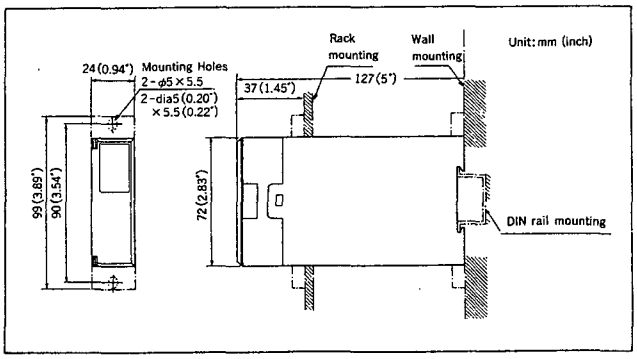
FM1V (DC Voltage Output)			
Output Signal		**Output Resistance**	**Permissible Load Resistance**
0~10mV DC		100Ω max	250kΩ min
0~100mV DC			
0~1V DC		1Ω max	2kΩ min
0~10V DC			10kΩ min
0~5V DC			2kΩ min
1~5V DC			2kΩ min
−10~+10V DC			10kΩ min
Others where V_{100}=24mA max	V_{100}≦100mV	100Ω max	250kΩ min
	V_{100}>100mV	1Ω max	10kΩ min

V_{100} : 100% output voltage

WIRING DIAGRAM



EXTERNAL DIMENSION



Subject to change without notice for grade up quality and performance