

JUXTA D Series

General Specifications

Model DM1
mV Transmitter

JUXTA

1. General

This DCS correspondence nest stored type signal conditioner converts millivoltage signals to various current or voltage signals.

- Incorporation of one-chip microcomputer provides high efficiency and superior performance.
- Range change, zero and span adjustment, burnout selection and I/O monitoring can easily be made even in the field by upper system or handy terminal.

2. Specifications

Input & Output	
Input signal	DC potential difference
Measuring range	-100~+150mVDC
Input resistance	1M Ω (3k Ω when power off)
Zero elevation	Within 300% of span
Permissible applied voltage	-0.5V~+4.0V
Span	3mV or more (accuracy is $\pm 0.33\%$ when 10mV or less)
Signal source resistance	1k Ω or less
Ch1 output signal	1~5V DC
Ch2 output signal	DC voltage or current signal (In case of current output, output is available only either from front terminals ③~④ or connector)
Zero point adjustment range	$\pm 1\%$ of span (input adjust), $\pm 10\%$ of span (output correction)
Span adjustment range	$\pm 1\%$ of span (input adjust), $\pm 10\%$ of span (output correction)
Standard Performance	
Accuracy rating	$\pm 0.1\%$ of span (Span 10mV or more : Output relative error 0.2%)
Response speed	200ms 63% response (10~90%)
Burnout	Specify UP, DOWN or OFF. Burnout time : 60 secs or less
Insulation resistance	100M Ω or more (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 $^{\circ}$ C, 5~90% RH Operating limit : -10~60 $^{\circ}$ C, 5~95% RH Storage condition : -10~70 $^{\circ}$ C, 5~95% RH (no condensation)
Power supply voltage	24V DC $\pm 10\%$ (ripple content 10% p-p or less)
Effect of power supply voltage fluctuation	$\pm 0.1\%$ or less of span per 24V DC $\pm 10\%$ fluctuation
Effect of ambient temperature change	$\pm 0.2\%$ of span per 10 $^{\circ}$ C temperature change
Current dissipation	24V DC 85mA (4~20mA DC), 50mA (1~5V DC)
Mounting & Dimension	
Boards	Both sides glass-epoxy
Mounting method	Store in exclusive nest (signal power supply be connected through back board and connector)
Wiring	External wiring : Connect to terminal M4 screw of input/output of exclusive nest. Connection to I/O card: By exclusive cable (connector)
External dimension	130.6 X 23.6 X 126mm (HxWxD)
Weight	About 120g
Accessories	
Tag number label ... 4	Range label4

DM1-16 □ *A/B □

Output resistance and permissible load resistance

TYPE _____

INPUT SIGNAL _____

Input Signal Range
1 : DC Potential Difference Signal
-100~+150mV DC
(when span is 3mV or more)

CH1 OUTPUT SIGNAL _____

6 : 1~5V DC

CH2 OUTPUT SIGNAL _____

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 or less) 0 : (CUSTOM) Voltage Signal (±10V or less)

BURNOUT _____

U : UP
D : DOWN
N : OFF

POWER SUPPLY _____

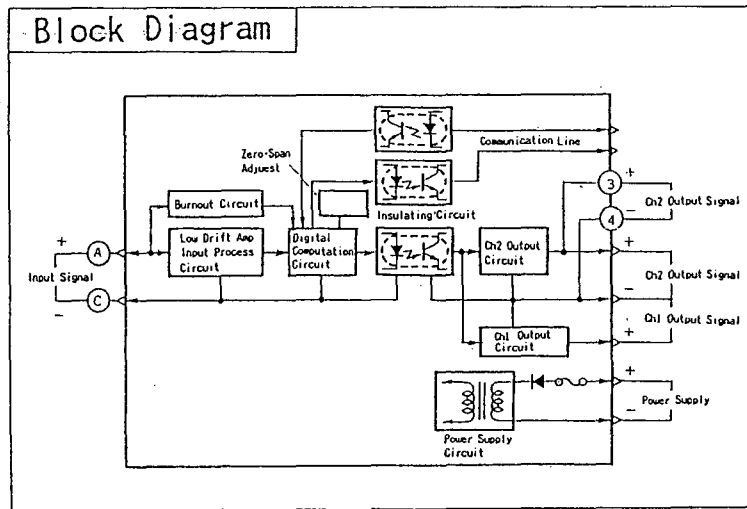
24V DC ±10%

(DC current output type)			
Output signal	Output resistance	Permissible load resistance	
4~20mA DC	5MΩ or more	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, in case of I ₁₀₀ = 24mA or less		(15/I ₁₀₀)Ω or less	
I ₁₀₀ = 100% output current value			

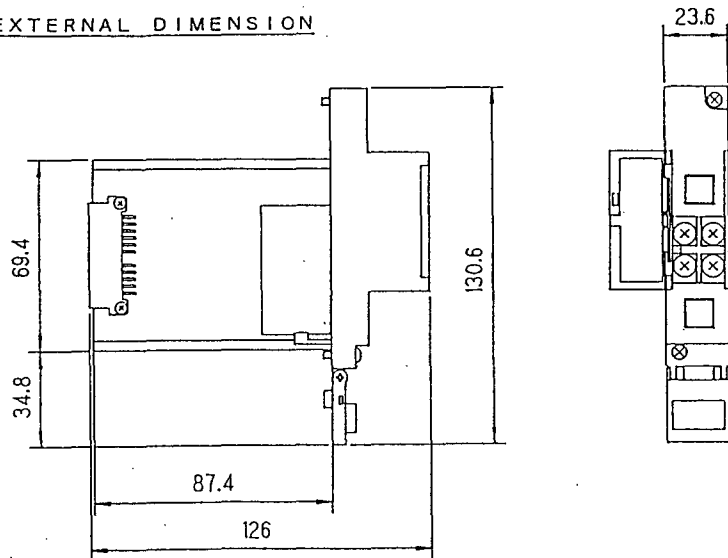
(DC voltage output type)			
Output signal	Output resistance	Permissible load resistance	
0~10mV DC	100Ω or less	250kΩ or more	
0~100mV DC	1Ω or less	2kΩ or more	
0~1V DC		10kΩ or more	
0~10V DC		2kΩ or more	
0~5V DC		2kΩ or more	
1~5V DC		2kΩ or more	
-10~+10V DC		10kΩ or more	
Others, in case of V ₁₀₀ ≤ 100mV		100Ω or less	250kΩ or more
I ₁₀₀ = 10V or less, V ₁₀₀ > 100mV		1Ω or less	10kΩ or more
V ₁₀₀ = 100% output voltage value			

ORDERING INFORMATION
(Example) Type Code : DM1-16A*A/BU
Input Range : 0~100mV DC

(Note) At 0~XmA of current output type, output value of 0.5% or less would be out of warranty regarding relative accuracy for Ch1 output.



EXTERNAL DIMENSION



Unit : mm

Subject to change without notice for grade up quality and performance