

JUXTA D Series

General Specifications

Model DH5
SQUARE ROOT EXTRACTOR

JUXTA

1. General

This DCS correspondence nest stored type signal isolator with square root extractor extracts square root of 1~5V DC signal and converts them into various current or voltage signals.

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

2. Specifications

Input & Output	
Input signal	1~5V DC
Input resistance	1M Ω (100K Ω when power off)
Permissible applied voltage	\pm 9V DC or less
Input compensation function	Square root extraction : $Y=2\sqrt{X-1}+1(V)$ (Y: output signal, X: input signal)
Ch1 output signal	1~5V DC Low cut point: 0.6%
Ch2 output signal	DC voltage or current signal (In case of current output, output is only available either from front terminal 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
Response speed	200ms 63% response (10~90%)s
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
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% or less 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

DH5-66□*A

TYPE _____

INPUT SIGNAL _____
6 : 1~5V DC

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)

POWER SUPPLY
24V DC±10%

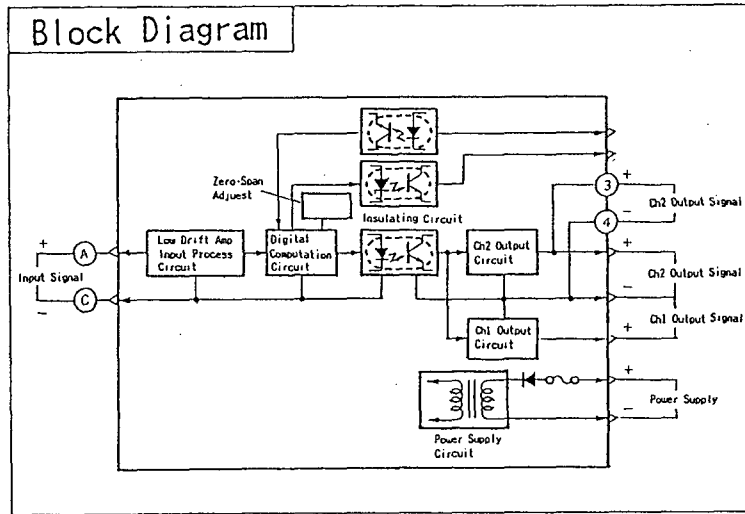
ORDERING INFORMATION
(Example) Type Code : DH5-66A*A
Low cut point : 0.3% (0.6% if not specified)

Output resistance and permissible load resistance

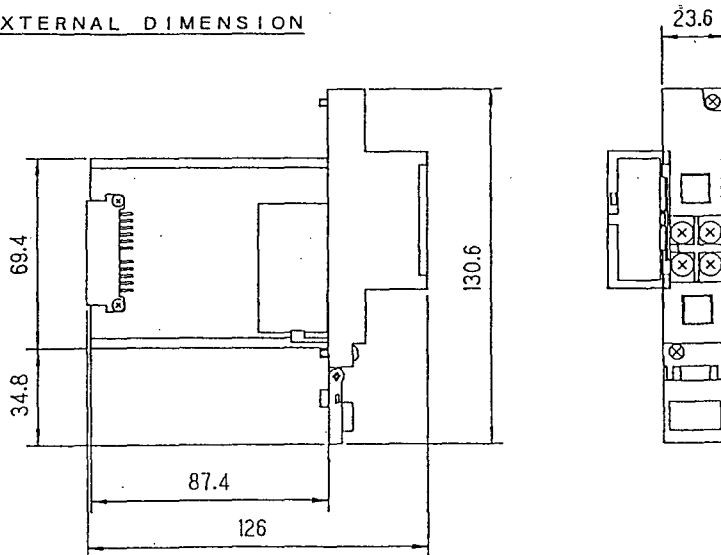
(DC current output type)			
Output signal	Output resistance	Permissible load resistance	
4~20mA DC	5kΩ or more	0~750Ω	
2~10mA DC		0~1500Ω	
1~5mA DC		0~3000Ω	
0~20mA DC		0~750Ω	
0~16mA DC		0~900Ω	
0~10mA DC		0~1500Ω	
0~1mA DC		0~15kΩ	
Others, in case of $I_{100} = 24mA$ or less		(15/ I_{100})Ω or less	
$I_{100} = 100\%$ 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		250kΩ or more	
0~1V DC	1Ω or less	2kΩ or more	
0~10V DC		10kΩ or more	
0~5V DC		2kΩ or more	
1~5V DC		2kΩ or more	
-10~+10V DC		10kΩ or more	
Others, in case of $V_{100} \leq 100mV$		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			

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



EXTERNAL DIMENSION



Subject to change without notice for grade up quality and performance