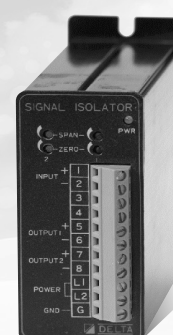


# WALL MOUNTING TYPE CONVERTER (2OUTPUT)

DT - SERIES

## ■ FEATURE

- 2 Isolated output
- Actualization of high accuracy
- AC110V, AC220V Power supply
- Improvement on reliability by hybrid package

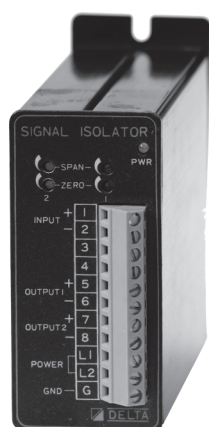


## Contents

	ITEMS		MODEL	PAGE
1	2 OUTPUT SIGNAL ISOLATOR & POWER DISTRIBUTOR	2 出力 信號絕緣 變換器 & 傳送器用 電源	DTIP	70
2	2 ISOLATED OUTPUT R.T.D CONVERTER	2 出力 測溫抵抗體 變換器	DTRB	71
3	2 ISOLATED OUTPUT THERMOCOUPLE CONVERTER	2 出力 熱電對 變換器	DTTC	72
4	2 ISOLATED OUTPUT POTENTIOMETER CONVERTER	2 出力 可變抵抗 變換器	DTPC	73
5	2 ISOLATED OUTPUT SIGNAL ISOLATOR	2 出力 信號絕緣 變換器	DTSI	74
6	2 ISOLATED OUTPUT REVERSE CONVERTER	2 出力 逆信號 變換器	DTRC	75
7	2 ISOLATED OUTPUT STRAIN GAUGE CONVERTER	2 出力 Strain gauge 變換器	DTLS	76

# General Specifications

## 2 OUTPUT SIGNAL ISOLATOR & POWER DISTRIBUTOR 2出力 信號絶縁 變換器 & 傳送器用 電源



This instrument is a high and accurate converter that provides simultaneously all transmitters such as pressure transmitter, flow transmitter, and level transmitter with power supply and signal conversion. Also, It contains overcurrent and overvoltage protection circuit inside.

It is totally isolated between input signal from transmitter and output signal of a converter so it does not need extra isolator when the loop is constructed.

It is especially advantageous to construct loop because input and output are separated completely and isolated between two outputs.

### SPECIFICATIONS

ITEMS	DESCRIPTIONS
OUTPUT RATING SUPPLY TO X'TR	DC 24V 30mA Max, Ripple : less than 0.1Vp-p
OUTPUT	DC Current or DC Voltage signal
ACCURACY	$\pm 0.1\%$ Max,
TEMP. COEFFICIENT	$\pm 0.015\%$ / $^{\circ}\text{C}$
RESPONSE TIME	Less than 0.5Sec (0~90%)
INSULATION RESISTANCE	Greater than 100M $\Omega$ at DC 500V
DIELECTRIC - STRENGTH	Input - Power AC 1,500V
	Input - Output1, Output2 AC 1,500V
	Input1 - Output2 AC 1,000V
	1 Minute
POWER SUPPLY	AC 110 / 220V $\pm 10\%$ , 50/60Hz
	ISOLATOR : 4VA
	POWER DISTRIBUTOR : 5VA
AMBIENT - TEMP	-5 ~ +55 $^{\circ}\text{C}$ ( 23 ~ 131 $^{\circ}\text{F}$ )
HUMIDITY	Less than 90% RH ( no condensation )
CASE MATERIAL	AL
COLOR	Black
WEIGHT	About 500g
DIMENSION	W42 X H90 X D120mm
MOUNTING	WALL

### ORDERING CODE

MODEL : DTIP -

#### • INPUT SIGNAL

4~20mA DC (2-Wire DC24V)

#### • OUTPUT1 SIGNAL

7. 4~20mA DC F. 1~5V DC  
G. Other

#### • OUTPUT2 SIGNAL

7. 4~20mA DC F. 1~5V DC  
G. Other

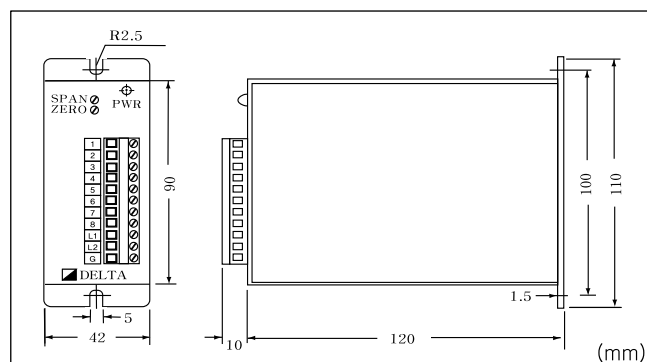
#### • POWER SUPPLY

1. AC 110V 2. AC 220V

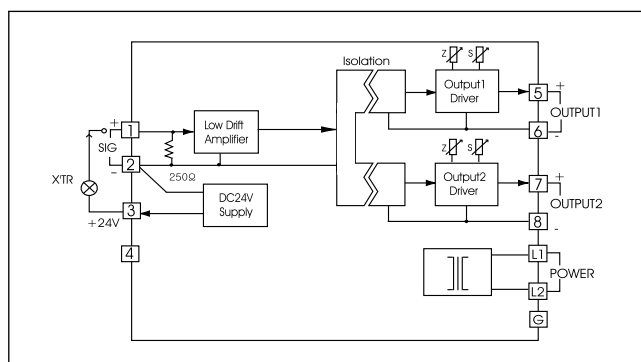
### ■ OUTPUT LOAD RESISTANCE

OUTPUT SIGNAL	LOAD RESISTANCE
DC 4~20mA	Less than 600 $\Omega$
DC 1~5V	More than 2.5K $\Omega$
DC 0~10V	More than 5K $\Omega$

### DIMENSION



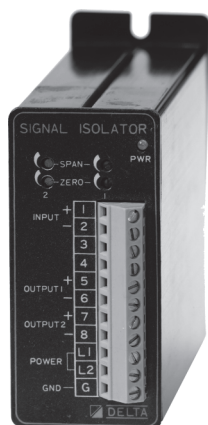
### BLOCK DIAGRAM



# General Specifications

## 2 ISOLATED OUTPUT R.T.D CONVERTER

### 2出力 測溫抵抗體 變換器



This instrument is a high and accurate converter that has RTD as an input signal and converts variation of resistance according to the temperature into DC output signal. Also it actualizes high and accurate linearization and compensation of line resistance.

It is especially advantageous to construct loop because input and output are separated completely and isolated between two outputs.

### SPECIFICATIONS

ITEMS	DESCRIPTIONS
INPUT	Pt 100Ω 3-Wire (Over 50deg) Adjustment needed for 2wire Bulb Permissible resistance of cable less than 10Ω
SUPPLY CURRENT TO Pt BULB	DC 2mA
BURN - OUT	Upper Limit
OUTPUT	DC Current or DC Voltage signal
ACCURACY	±0.2% Max.
TEMP. COEFFICIENT	±0.02% / °C
RESPONSE TIME	Less than 0.5Sec (0~90%)
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V
DIELECTRIC - STRENGTH	Input - Power AC 1,500V
	Input - Output1, Output2 AC 1,500V
	Input1 - Output2 AC 1,000V
	1 Minute
POWER SUPPLY	AC 110V / AC220V ±10%, 50/60Hz, 4VA
AMBIENT - TEMP	-5 ~ +55°C ( 23 ~ 131 °F)
HUMIDITY	Less than 90% RH ( no condensation )
LINEARIZER	Standard Function
CASE MATERIAL	AL
COLOR	Black
WEIGHT	About 500g
DIMENSION	W42 X H90 X D120mm
MOUNTING	WALL

### ORDERING CODE

MODEL : DTRB -  -  -  /

#### • INPUT SIGNAL

1. JPt 100Ω (JIS) 3-Wire
2. Pt 100Ω (DIN) 3-Wire
3. Others

#### • OUTPUT1 SIGNAL

7. 4~20mA DC
- F. 1~5V DC
- G. Other

#### • OUTPUT2 SIGNAL

7. 4~20mA DC
- F. 1~5V DC
- G. Other
- N. None

#### • POWER SUPPLY

1. AC 110V
2. AC 220V

#### • BURN OUT

- U. Up scale

\* Please Specify the Input Range When you Order.

### ■ STANDARD INPUT RANGE

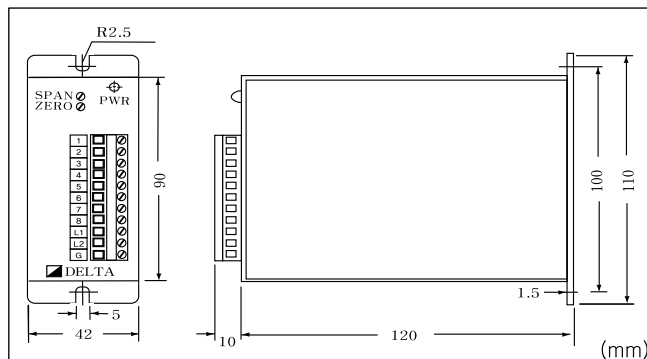
(UNIT : °C)

INPUT	RANGE
Pt 100Ω	0~50, 0~100, 0~150, 0~200, 0~250, 0~300, 0~400 0~500, -20 ~ +80, -50 ~ +50, -50 ~ +150, 50~100 50~150, 100~200, 100~300, 200~400

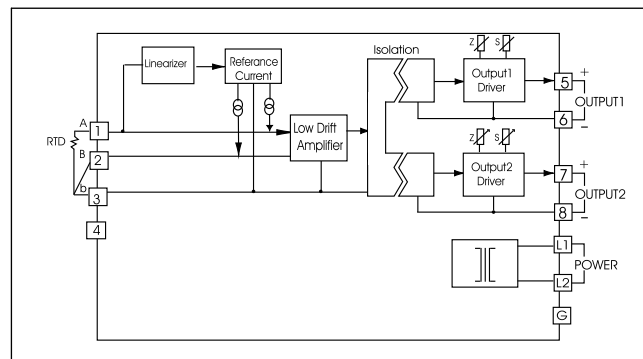
### ■ OUTPUT LOAD RESISTANCE

OUTPUT SIGNAL	LOAD RESISTANCE
DC 4~20mA	Less than 600Ω
DC 1~5V	More than 2.5KΩ
DC 0~10V	More than 5KΩ

### DIMENSION

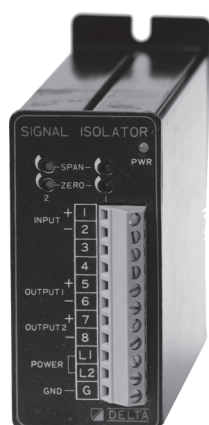


### BLOCK DIAGRAM



# General Specifications

## 2 ISOLATED OUTPUTS THERMOCOUPLE CONVERTER 2出力 熱電對 變換器



This instrument is a high accurate converter that has various T/C as an input, then converts it into DC signal through temperature compensation and linear circuit as receiving a signal corresponding to temperature.

It is especially advantageous to construct loop because input and output are separated completely and isolated between two outputs.

### SPECIFICATIONS

ITEMS	DESCRIPTIONS
INPUT	Thermocouple ( K, J, T, E, B, R, S )
BURN - OUT	Upper Limit
OUTPUT	DC Current or DC Voltage signal
ACCURACY	$\pm 0.5\%$ Max.
TEMP. COEFFICIENT	$\pm 0.02\%$ / $^{\circ}\text{C}$
RESPONSE TIME	Less than 0.5Sec (0~90%)
INSULATION RESISTANCE	Greater than 100M $\Omega$ at DC 500V
DIELECTRIC - STRENGTH	Input - Power AC 1,500V
	Input - Output1, Output2 AC 1,500V
	Input1 - Output2 AC 1,000V
	1 Minute
POWER SUPPLY	AC 110V / AC220V $\pm 10\%$ , 50/60Hz, 4VA
AMBIENT - TEMP	-5 ~ +55 $^{\circ}\text{C}$ ( 23 ~ 131 $^{\circ}\text{F}$ )
HUMIDITY	Less than 90% RH ( no condensation )
LINEARIZER	Standard Function
CASE MATERIAL	AL
COLOR	Black
WEIGHT	About 500g
DIMENSION	W42 X H90 X D120mm
MOUNTING	WALL

### ORDERING CODE

MODEL : DTTC -    -  /

#### INPUT SIGNAL

- |           |                       |
|-----------|-----------------------|
| 1. K(CA)  | 5. B                  |
| 2. J(IC)  | 6. S                  |
| 3. T(CC)  | 7. R                  |
| 4. E(CRC) | 8. Other Thermocouple |

#### OUTPUT1 SIGNAL

7. 4~20mA DC  
F. 1~5V DC  
G. Other

#### OUTPUT2 SIGNAL

7. 4~20mA DC  
F. 1~5V DC  
G. Other

#### POWER SUPPLY

1. AC 110V      2. AC 220V

#### BURN OUT

- U. Up scale

\* Please Specify the Input Range When you Order.

### STANDARD INPUT RANGE

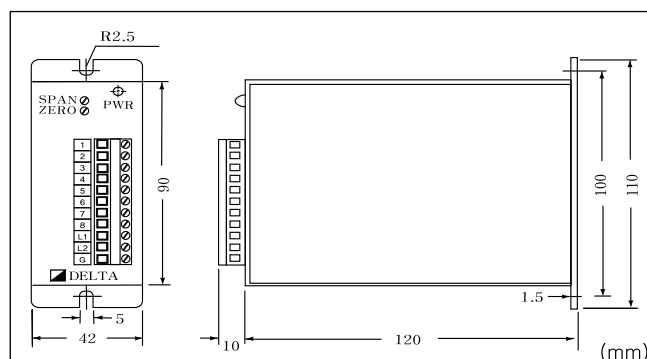
(UNIT :  $^{\circ}\text{C}$ )

INPUT	RANGE
K	-50~+100, 0~300, 0~400, 0~500, 0~600 0~800, 0~1000, 0~1200
J	0~200, 0~300, 0~400, 0~800
T	-20~80, 0~100, 0~200
R	600~1600

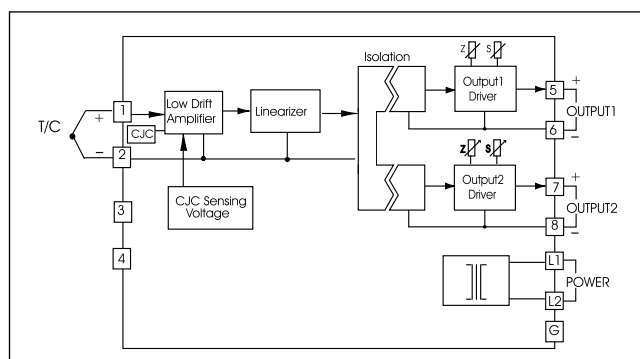
### OUTPUT LOAD RESISTANCE

OUTPUT SIGNAL	LOAD RESISTANCE
DC 4~20mA	Less than 600 $\Omega$
DC 1~5V	More than 2.5K $\Omega$
DC 0~10V	More than 5K $\Omega$

### DIMENSION

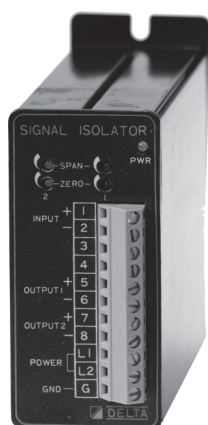


### BLOCK DIAGRAM



# General Specifications

## 2 ISOLATED OUTPUT POTENTIOMETER CONVERTER 2出力 可變抵抗 變換器



This instrument is a high and accurate converter that has resistance signal of 3 lines potentiometer ( $100\Omega \sim 100K\Omega$ ) as an input, then converts it into DC signals.

it is widely used for float type water level detector etc, and has hardly mutual interference of zero and span.

It is especially advantageous to construct loop because input and output are separated completely and isolated between two outputs.

### SPECIFICATIONS

ITEMS	DESCRIPTIONS
INPUT	Potentiometer ( from $100\Omega \sim 100K\Omega$ )
OUTPUT	DC Current or DC Voltage signal
ACCURACY	$\pm 0.2\%$ Max.
TEMP. COEFFICIENT	$\pm 0.015\%$ / $^{\circ}\text{C}$
RESPONSE TIME	Less than 0.5Sec (0~90%)
INSULATION RESISTANCE	Greater than $100M\Omega$ at DC 500V
DIELECTRIC - STRENGTH	Input - Power AC 1,500V
	Input - Output1, Output2 AC 1,500V
	Input1 - Output2 AC 1,000V
	1 Minute
POWER SUPPLY	AC 110V / AC220V $\pm 10\%$ , 50/60Hz, 4VA
AMBIENT - TEMP	$-5 \sim +55^{\circ}\text{C}$ ( $20 \sim 130^{\circ}\text{F}$ )
HUMIDITY	Less than 90% RH ( no condensation )
CASE MATERIAL	AL
COLOR	Black
WEIGHT	About 500g
DIMENSION	W42 X H90 X D120mm
MOUNTING	WALL

### ORDERING CODE

MODEL : DTPC -

#### • INPUT SIGNAL

POTENTIOMETER( Total resistance  $100\Omega \sim 100K\Omega$  )

#### • OUTPUT1 SIGNAL

7. 4~20mA DC

F. 1~5V DC

G. Other

#### • OUTPUT2 SIGNAL

7. 4~20mA DC

F. 1~5V DC

G. Other

#### • POWER SUPPLY

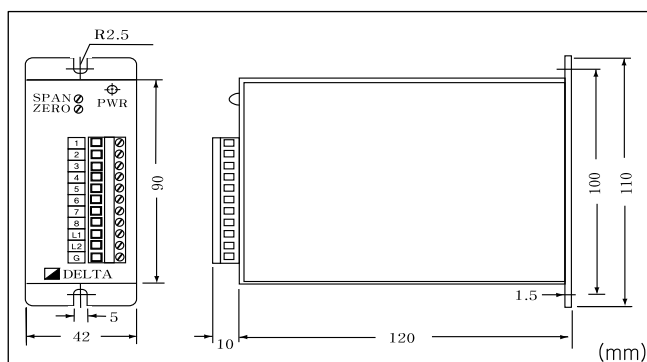
1. AC 110V

2. AC 220V

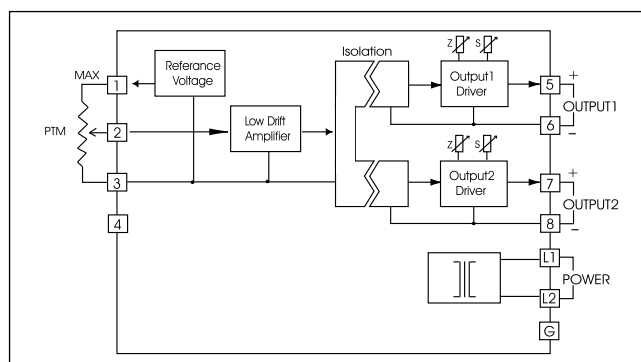
### ■ OUTPUT LOAD RESISTANCE

OUTPUT SIGNAL	LOAD RESISTANCE
DC 4~20mA	Less than $600\Omega$
DC 1~5V	More than $2.5K\Omega$
DC 0~10V	More than $5K\Omega$

### DIMENSION



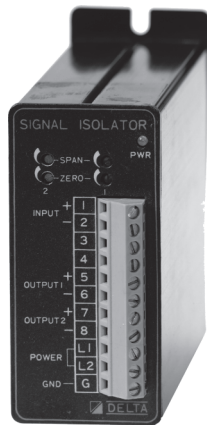
### BLOCK DIAGRAM



# General Specifications

## 2 ISOLATED OUTPUT SIGNAL ISOLATOR

### 2出力 信號絶縁 變換器



This instrument has DC voltage and current as an input signal, then converts and outputs it under the condition that input and output are separated completely.

It especially selects 3ways isolation circuit of which input and output are separated by transformer and power and input / output by transformer.

It is high and accurate converter that is suitable to protect a pulse noise and high peak voltage demanded in a computer interface and field instruments.

It is especially advantageous to construct loop because input and output are separated completely and isolated between two outputs.

### SPECIFICATIONS

ITEMS	DESCRIPTIONS
INPUT	DC Current or DC Voltage signal
OUTPUT	DC Current or DC Voltage signal
ACCURACY	$\pm 0.1\%$ Max.
TEMP. COEFFICIENT	$\pm 0.015\%$ / $^{\circ}\text{C}$
RESPONSE TIME	Less than 0.5Sec (0~90%)
INSULATION RESISTANCE	Greater than 100M $\Omega$ at DC 500V
DIELECTRIC - STRENGTH	Input - Power AC 1,500V
	Input - Output1, Output2 AC 1,500V
	Input1 - Output2 AC 1,000V
	1 Minute
POWER SUPPLY	AC 110V / AC220V $\pm 10\%$ , 50/60Hz, 4VA
AMBIENT - TEMP	-5 ~ +55 $^{\circ}\text{C}$ ( 23 ~ 131 $^{\circ}\text{F}$ )
HUMIDITY	Less than 90% RH ( no condensation )
CASE MATERIAL	AL
COLOR	Black
WEIGHT	About 500g
DIMENSION	W42 X H90 X D120mm
MOUNTING	WALL

### ORDERING CODE

MODEL : DTSI -

#### • INPUT SIGNAL

7. 4~20mA DC  
F. 1~5V DC  
G. Other

#### • OUTPUT1 SIGNAL

7. 4~20mA DC  
F. 1~5V DC  
G. Other

#### • OUTPUT2 SIGNAL

7. 4~20mA DC  
F. 1~5V DC  
G. Other

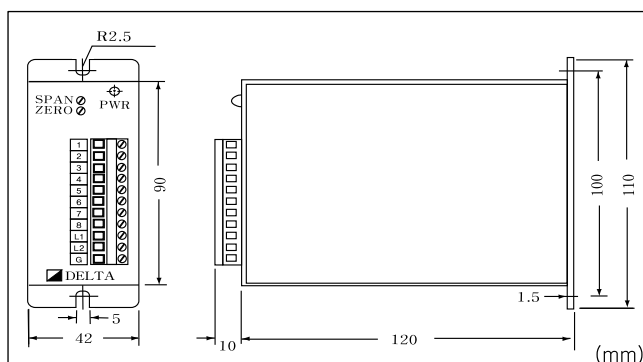
#### • POWER SUPPLY

1. AC 110V 2. AC 220V

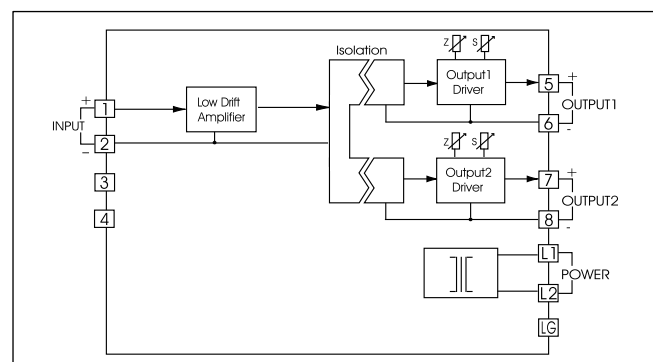
### ■ OUTPUT LOAD RESISTANCE

OUTPUT SIGNAL	LOAD RESISTANCE
DC 4~20mA	Less than 600 $\Omega$
DC 1~5V	More than 2.5K $\Omega$
DC 0~10V	More than 5K $\Omega$

### DIMENSION



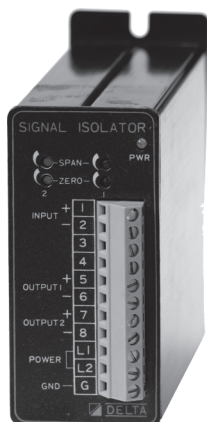
### BLOCK DIAGRAM



# General Specifications

## 2 ISOLATED OUTPUT REVERSE CONVERTER

### 2出力 逆信號 變換器



This instrument is a high and accurate converter that has DC voltage and current as an input signal then converts them into reverse signal. It is possible to design loop freely and synthetically using input and output of all instruments.

It is especially advantageous to construct loop because input and output are separated completely and isolated between two output.

### SPECIFICATIONS

ITEMS	DESCRIPTIONS
INPUT	DC Current or DC Voltage signal
OUTPUT	DC Current or DC Voltage signal
ACCURACY	$\pm 0.1\%$ Max.
TEMP. COEFFICIENT	$\pm 0.015\%$ / $^{\circ}\text{C}$
RESPONSE TIME	Less than 0.5Sec (0~90%)
INSULATION RESISTANCE	Greater than 100M $\Omega$ at DC 500V
DIELECTRIC - STRENGTH	Input - Power AC 1,500V
	Input - Output1, Output2 AC 1,500V
	Input1 - Output2 AC 1,000V
	1 Minute
POWER SUPPLY	AC 110V / AC220V $\pm 10\%$ , 50/60Hz, 4VA
AMBIENT - TEMP	$-5 \sim +55^{\circ}\text{C}$ ( $23 \sim 131^{\circ}\text{F}$ )
HUMIDITY	Less than 90% RH ( no condensation )
CASE MATERIAL	AL
COLOR	Black
WEIGHT	About 500g
DIMENSION	W42 X H90 X D120mm
MOUNTING	WALL

### ORDERING CODE

MODEL : DTRC -          -   

#### • INPUT SIGNAL

7. 4~20mA DC  
F. 1~5V DC  
G. Other

#### • OUTPUT1 SIGNAL

7. 20~4mA DC  
F. 5~1V DC  
G. Other

#### • OUTPUT2 SIGNAL

7. 20~4mA DC  
F. 5~1V DC  
G. Other

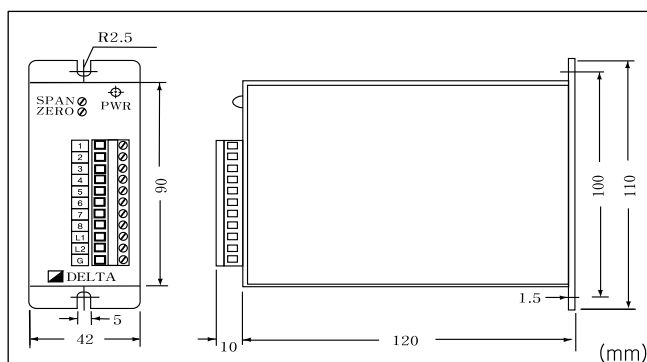
#### • POWER SUPPLY

1. AC 110V      2. AC 220V

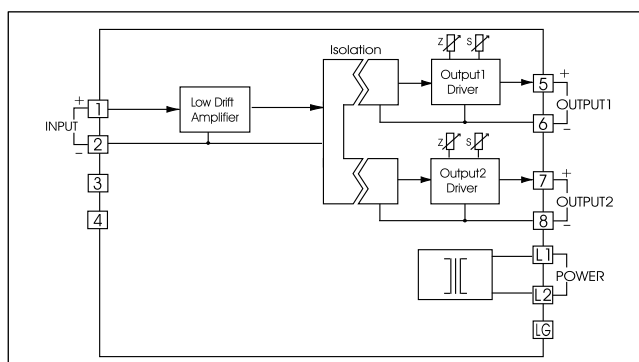
### ■ OUTPUT LOAD RESISTANCE

OUTPUT SIGNAL	LOAD RESISTANCE
DC 4~20mA	Less than 600 $\Omega$
DC 1~5V	More than 2.5K $\Omega$
DC 0~10V	More than 5K $\Omega$

### DIMENSION

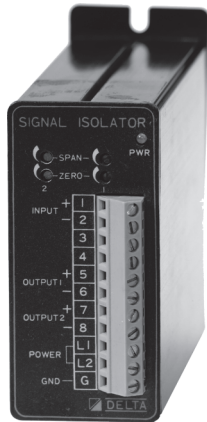


### BLOCK DIAGRAM



# General Specifications

## 2 ISOLATED OUTPUT STRAIN GAUGE CONVERTER 2出力 Strain gauge 變換器



This instrument converts Load cell or strain gauge as an input signal into DC voltage or current. It actualizes a high and accurate performance that residual magnetic voltage selects constant voltage and amplifier circuit select low noise type.

It is especially advantageous to construct loop because input and output are separated completely and isolated between two outputs.

### SPECIFICATIONS

ITEMS	DESCRIPTIONS
LOAD CELL TO BE COMBINED	Bridge Resistance 350Ω or more rated output Voltage 2mV/V and other
APPLIED VOLTAGE	DC 10V (Standard)
OUTPUT	DC Current or DC Voltage signal
ACCURACY	±0.2% Max.
TEMP. COEFFICIENT	±0.02% / °C
RESPONSE TIME	Less than 0.5Sec (0~90%)
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V
DIELECTRIC - STRENGTH	Input - Power AC 1,500V
	Input - Output1, Output2 AC 1,500V
	Input1 - Output2 AC 1,000V
	1 Minute
POWER SUPPLY	AC 110V / AC220V ±10%, 50/-60Hz, 4VA
AMBIENT - TEMP	-5 ~ +55°C ( 23 ~ 131 °F)
HUMIDITY	Less than 90% RH ( no condenstation )
CASE MATERIAL	AL
COLOR	Black
WEIGHT	About 500g
DIMENSION	W42 X H90 X D120mm
MOUNTING	WALL

### ORDERING CODE

MODEL : DTL5 - [ ] [ ] [ ] [ ] - [ ]

#### • INPUT SIGNAL

- 7. DC 5V
- F. DC 10V
- G. Other Voltage

#### • LOAD CELL

- 1. 2mV/V
- 2. Other

#### • OUTPUT1 SIGNAL

- 7. 4~20mA DC
- F. 1~5V DC
- G. Other

#### • OUTPUT2 SIGNAL

- 7. 4~20mA DC
- F. 1~5V DC
- G. Other

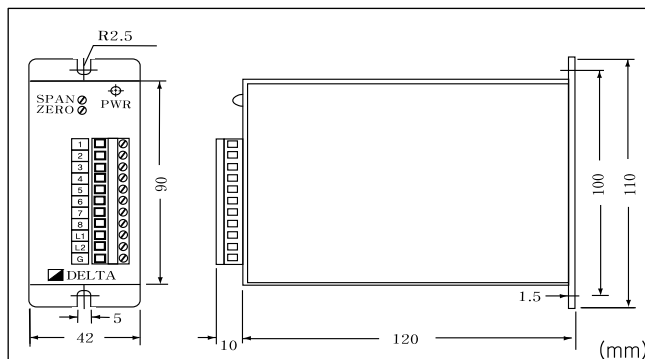
#### • POWER SUPPLY

- 1. AC 110V
- 2. AC 220V

### ■ OUTPUT LOAD RESISTANCE

OUTPUT SIGNAL	LOAD RESISTANCE
DC 4~20mA	Less than 600Ω
DC 1~5V	More than 2.5KΩ
DC 0~10V	More than 5KΩ

### DIMENSION



### BLOCK DIAGRAM

