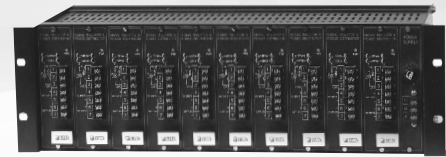


19" RACK TYPE CONVERTER(10CH)

DU - SERIES

■ FEATURE

- 1&2 Isolated output
- Solution of inconvenience of maintenance
- Following collective power supply
- Capability of RACK & Wall mounting
- AC110V, AC220V Power supply



Contents

	ITEMS		MODEL	PAGE
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2	1&2 OUTPUT R.T.D CONVERTER	1&2出力 測溫抵抗體 變換器	DURB	155
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General Specifications



1&2 OUTPUT SIGNAL ISOLATOR & POWER DISTRIBUTOR 1&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 has provides all transmitters such as pressure transmitter, flow and overvoltage protection circuit inside with power supply and signal conversion. 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, Riffle : less than 0.1Vp-p		
OUTPUT	DC Current or DC Voltage signal		
ACCURACY	±0.1% Max,		
TEMP. COEFFICIENT	±0.015% / °C		
RESPONSE TIME	Less than 0.5Sec (0~90%)		
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V		
DIELECTRIC - STRENGTH	Input - Power	AC 1,500V	1 Minute
	Input - Output1, 2	AC 1,500V	
	Output1 - Output2	AC 1,000V	
POWER SUPPLY	AC 110 / 220V ±10%, 50/60Hz 5VA		
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131 °F)		
HUMIDITY	Less than 90% RH (no condenstation)		
CASE MATERIAL	AL		
COLOR	Black		
WEIGHT	About 360g		
DIMENSION	W41 X H128, 5 X D173mm		
MOUNTING	19 Inch STD. RACK MOUNTING FRAME(DUR-10G)		

ORDERING CODE

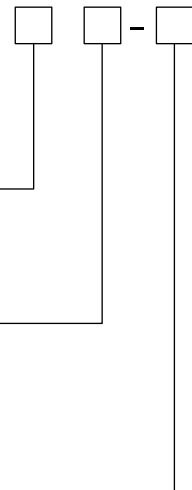
MODEL : DUIP -

• 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
N. None

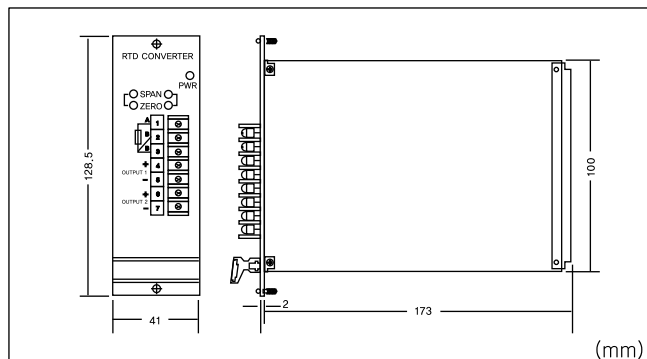
• POWER SUPPLY
1. AC 110V 2. AC 220V



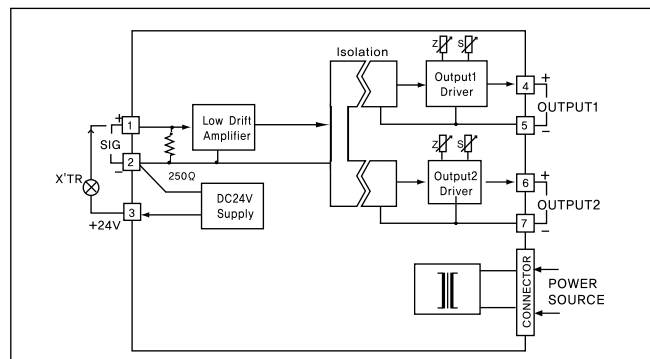
OUTPUT LOAD RESISTANCE

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

DIMENSION



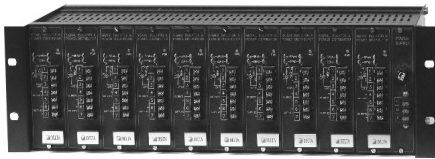
BLOCK DIAGRAM



General Specifications

1&2 OUTPUT R, T, D CONVERTER

1&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. Especially an input and an output are totally separated. It is isolated between two outputs so it is advantageous when a loop is constructed.

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	Up scale		
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	1 Minute
	Input - Output1, 2	AC 1,500V	
	Output1 - Output2	AC 1,000V	
POWER SUPPLY	AC 110V / AC220V ±10%, 50/60Hz, 4VA		
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131 °F)		
HUMIDITY	Less than 90% RH (no condensation)		
CASE MATERIAL	AL		
COLOR	Black		
WEIGHT	About 360g		
DIMENSION	W41 X H128.5 X D173mm		
MOUNTING	19 Inch STD. RACK MOUNTING FRAME(DUR-10G)		

ORDERING CODE

MODEL : DURB - [] [] [] - [] / []

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

- OUTPUT1 SIGNAL
 - F. 4~20mA DC
 - F. 1~5V DC
 - G. Other

- OUTPUT2 SIGNAL
 - F. 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.

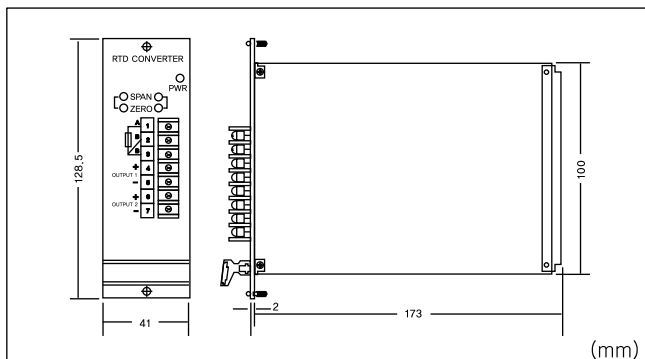
STANDARD INPUT RANGE (UNIT : °C)

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

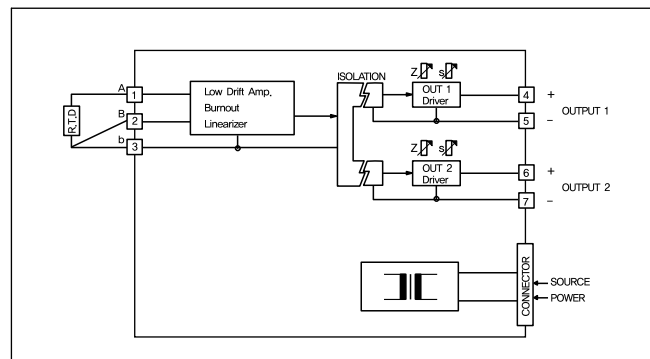
OUTPUT LOAD RESISTANCE

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

DIMENSION



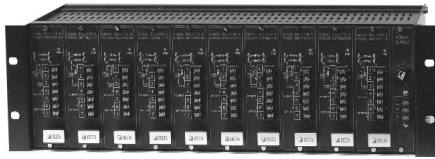
BLOCK DIAGRAM



General Specifications

1&2 OUTPUT THERMOCOUPLE CONVERTER

1&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	Up scale		
OUTPUT	DC Current or DC Voltage signal		
ACCURACY	±0.3% 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	1 Minute
	Input - Output1, 2	AC 1,500V	
	Output1 - Output2	AC 1,000V	
POWER SUPPLY	AC 110V / AC220V ±10%, 50/60Hz, 4VA		
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131 °F)		
HUMIDITY	Less than 90% RH (no condensation)		
CASE MATERIAL	AL		
COLOR	Black		
WEIGHT	About 360g		
DIMENSION	W41 X H128.5 X D173mm		
MOUNTING	19 Inch STD. RACK MOUNTING FRAME(DUR-10G)		

ORDERING CODE

MODEL : DUTC - [] [] [] - [] / []

INPUT SIGNAL

- 1. K(CA)
- 2. J(IC)
- 6. S
- 4. E(CRC)
- 5. B
- 7. R

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

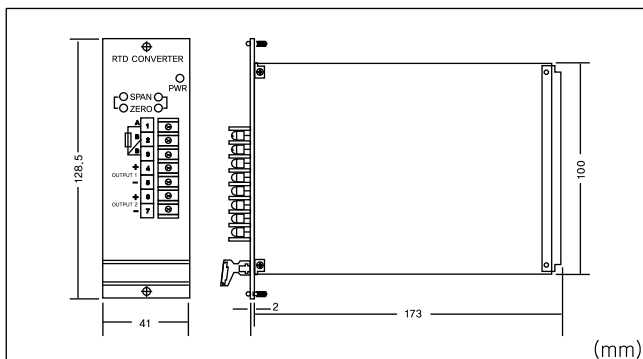
(UNIT : °C)

INPUT	RANGE
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

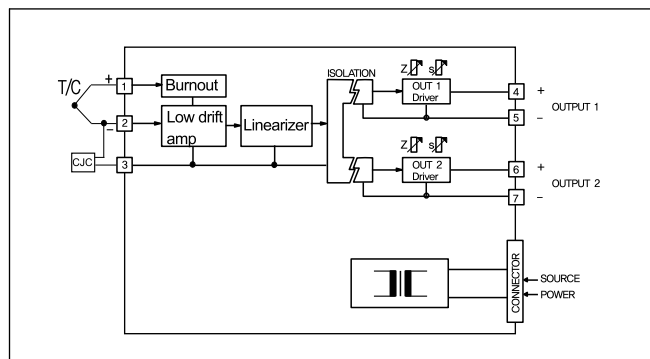
OUTPUT LOAD RESISTANCE

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

DIMENSION



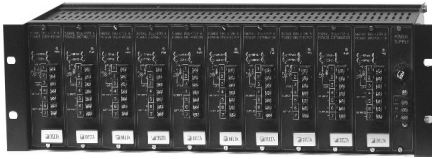
BLOCK DIAGRAM



General Specifications

1&2 OUTPUT POTENTIOMETER CONVERTER

1&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 (100Ω ~ 100kΩ) 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.

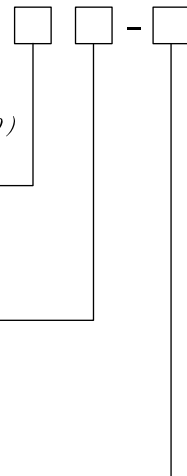
SPECIFICATIONS

ITEMS	DESCRIPTIONS		
INPUT	Potentiometer (from 100Ω ~ 100KΩ)		
OUTPUT	DC Current or DC Voltage signal		
ACCURACY	±0.2% Max.		
TEMP. COEFFICIENT	±0.015% / °C		
RESPONSE TIME	Less than 0.5Sec (0~90%)		
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V		
DIELECTRIC - STRENGTH	Input - Power	AC 1,500V	1 Minute
	Input - Output1, 2	AC 1,500V	
	Output1 - Output2	AC 1,000V	
POWER SUPPLY	AC 110V / AC220V ±10%, 50/60Hz, 4VA		
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131 °F)		
HUMIDITY	Less than 90% RH (no condensation)		
CASE MATERIAL	AL		
COLOR	Black		
WEIGHT	About 360g		
DIMENSION	W41 X H128.5 X D173mm		
MOUNTING	19 Inch STD. RACK MOUNTING FRAME(DUR-10G)		

ORDERING CODE

MODEL : DUPC -

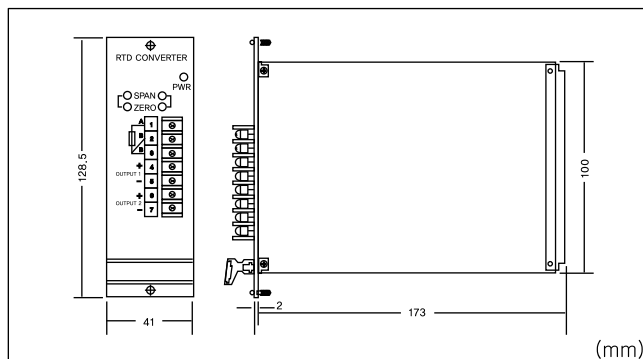
- INPUT SIGNAL
POTENTIOMETER(Total resistance 100Ω ~ 100KΩ)
- OUTPUT1 SIGNAL
7. 4~20mA DC
F. 1~5V DC
G. Other
- OUTPUT2 SIGNAL
7. 4~20mA DC
F. 1~5V DC
G. Other
N. None
- POWER SUPPLY
1. AC 110V 2. AC 220V



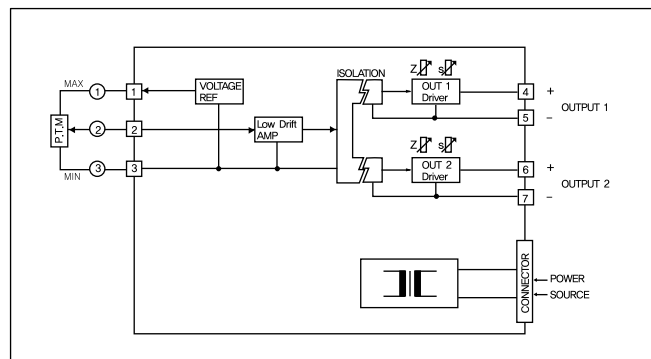
OUTPUT LOAD RESISTANCE

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

DIMENSION



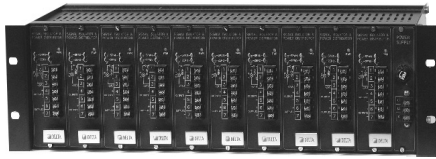
BLOCK DIAGRAM



General Specifications

1&2 OUTPUT SIGNAL ISOLATOR

1&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	±0.1% Max.		
TEMP. COEFFICIENT	±0.015% / °C		
RESPONSE TIME	Less than 0.5Sec (0~90%)		
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V		
DIELECTRIC - STRENGTH	Input - Power	AC 1,500V	1 Minute
	Input - Output1, 2	AC 1,500V	
	Output1 - Output2	AC 1,000V	
POWER SUPPLY	AC 110V / AC220V ±10%, 50/60Hz, 4VA		
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131 °F)		
HUMIDITY	Less than 90% RH (no condensation)		
CASE MATERIAL	AL		
COLOR	Black		
WEIGHT	About 360g		
DIMENSION	W41 X H128,5 X D173mm		
MOUNTING	19 Inch STD. RACK MOUNTING FRAME(DUR-10G)		

ORDERING CODE

MODEL : DUSI -

• INPUT SIGNAL

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

• OUTPUT1 SIGNAL

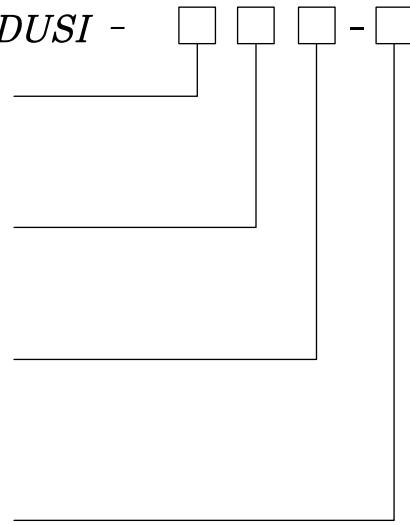
- 7. 4~20mA DC
- F. 1~5V DC
- G. Other

• OUTPUT2 SIGNAL

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

• POWER SUPPLY

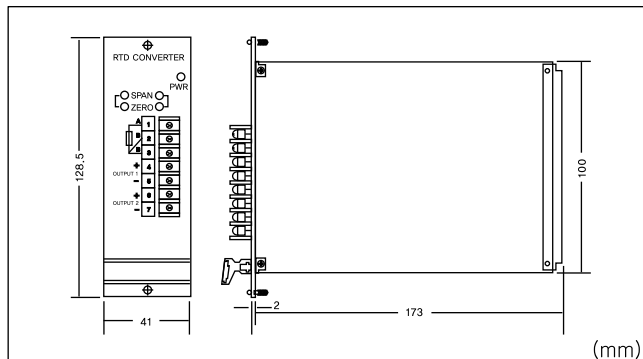
- 1. AC 110V
- 2. AC 220V



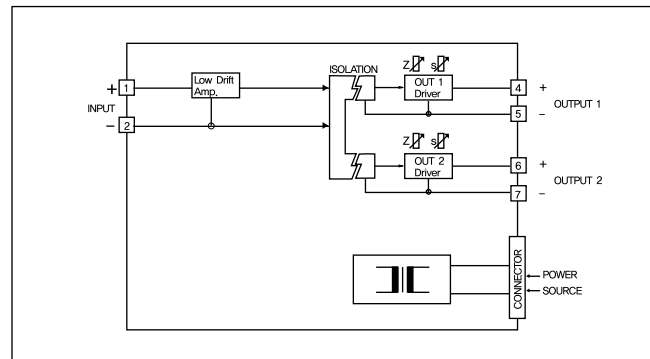
■ OUTPUT LOAD RESISTANCE

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

DIMENSION



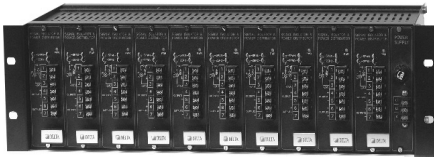
BLOCK DIAGRAM



General Specifications

1&2 OUTPUT REVERSE CONVERTER

1&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	±0.1% Max.		
TEMP. COEFFICIENT	±0.015% / °C		
RESPONSE TIME	Less than 0.5Sec (0~90%)		
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V		
DIELECTRIC - STRENGTH	Input - Power	AC 1,500V	1 Minute
	Input - Output1, 2	AC 1,500V	
	Output1 - Output2	AC 1,000V	
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 360g		
DIMENSION	W41 X H128.5 X D173mm		
MOUNTING	19 Inch STD. RACK MOUNTING FRAME(DUR-10G)		

ORDERING CODE

MODEL : DURC - [] [] [] - []

• 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
- N. None

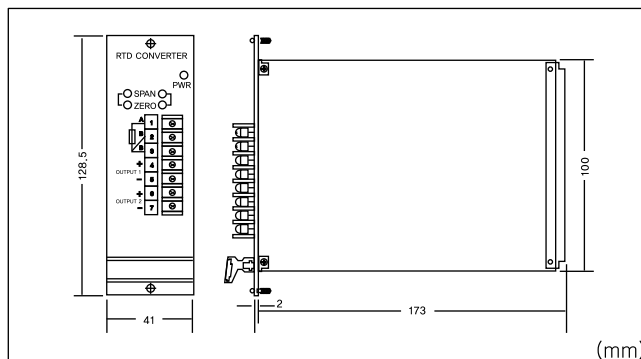
• POWER SUPPLY

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

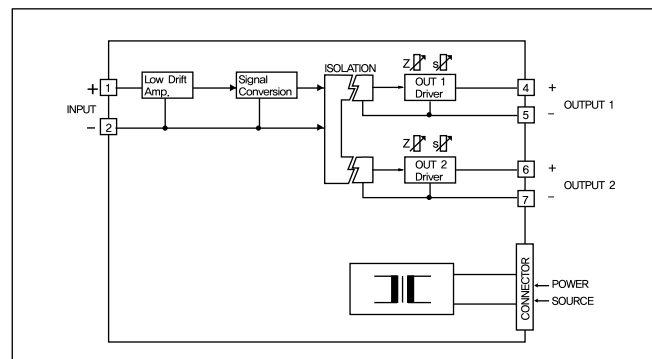
■ OUTPUT LOAD RESISTANCE

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

DIMENSION



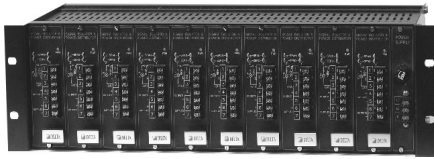
BLOCK DIAGRAM



General Specifications

1&2 OUTPUT STRAIN GAUGE CONVERTER

1&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.

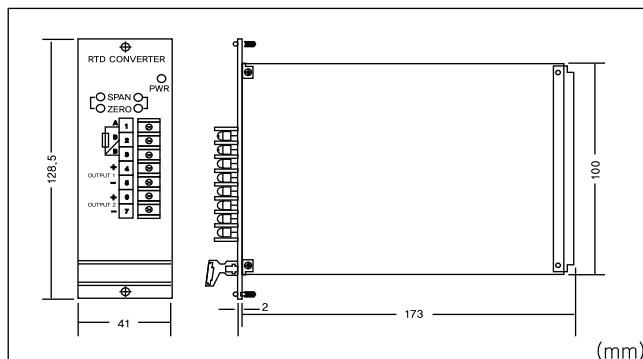
SPECIFICATIONS

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	±0.15% / °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, 2	AC 1,500V
	Output1 - Output2	AC 1,000V
	1 Minute	
POWER SUPPLY	AC 110V / AC220V ±10%, 50/60Hz, 5VA	
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131 °F)	
HUMIDITY	Less than 90% RH (no condensation)	
CASE MATERIAL	AL	
COLOR	Black	
WEIGHT	About 360g	
DIMENSION	W41 X H128,5 X D173mm	
MOUNTING	19 Inch STD. RACK MOUNTING FRAME(DUR-10G)	

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



ORDERING CODE

MODEL : DULS - [] [] [] [] - []

EXT. VOLTAGE

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

LOAD CELL

- 1. 2mV/V
- 2. Other Voltage

OUTPUT1 SIGNAL

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

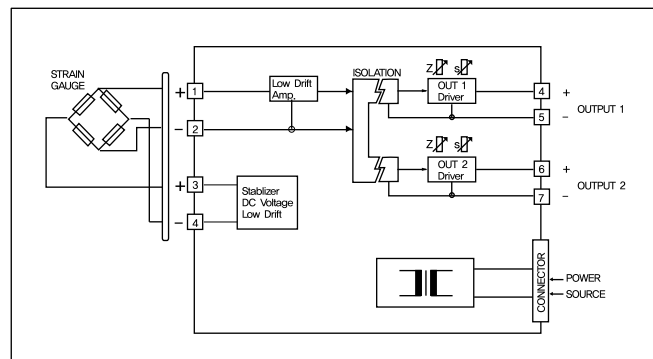
OUTPUT2 SIGNAL

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

POWER SUPPLY

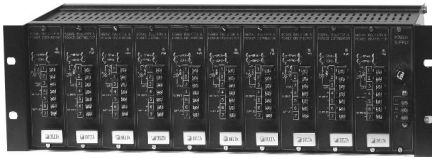
- 1. AC 110V
- 2. AC 220V

BLOCK DIAGRAM



General Specifications

2 CHANNEL POWER DISTRIBUTOR 2CH 傳送器用 電源 (非絶縁)



This instrument is a high and accurate converter that has provides all transmitters such as pressure transmitter, a flow transmitter and a level transmitter with power supply and signal conversion. Also it contains a protection circuit for over current and voltage inside.

SPECIFICATIONS

ITEMS	DESCRIPTIONS
OUTPUT RATING SUPPLY TO X' TR	DC 24V 30mA Max, Riffle : less than 0.1Vp-p
OUTPUT	DC Current or DC Voltage signal
ACCURACY	±0.5% Max.
TEMP. COEFFICIENT	±0.02% / °C
RESPONSE TIME	Less than 0.1Sec (0~90%)
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V
DIELECTRIC - STRENGTH	Input - Power (ch1,ch2) AC 1,500V Output - Power (ch1,ch2) AC 1,500V 1 Minute
POWER SUPPLY	AC 110 / 220V ±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 360g
DIMENSION	W41 X H128.5 X D173mm
MOUNTING	19 Inch STD. RACK MOUNTING FRAME(DUR-10G)

ORDERING CODE

MODEL : DUPD -

• INPUT SIGNAL
DC 4~20mA (2-Wire DC24V)

• CHANNEL
1. 1Point
2. 2Point

• OUTPUT RATING
(X' TR SUPPLY)
A. DC 24V use
B. Other

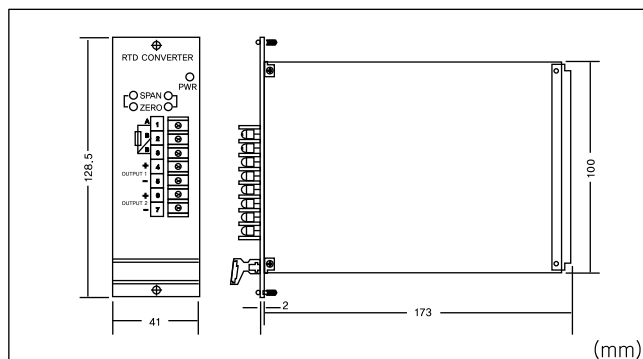
• OUTPUT1 SIGNAL
7. 4~20mA DC
F. 1~5V DC

• POWER SUPPLY
1. AC 110V 2. AC 220V

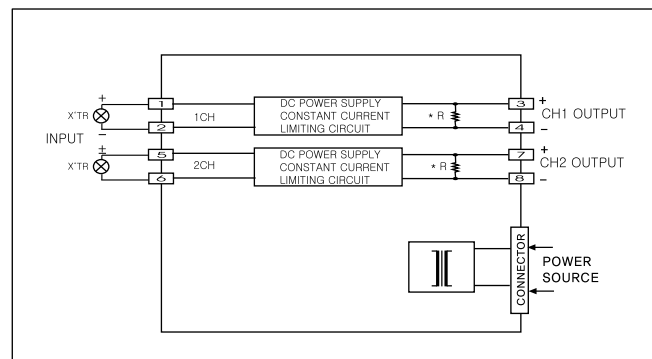
OUTPUT LOAD RESISTANCE

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



General Specifications

19 INCH STD RACK MOUNTING FRAME



This has a 19 Inch STD Rack Mounting Frame structure that mounts up to 10 DU-Series simultaneously.

It provides power at once.

Rack Mounting and Wall Mounting are possible to use.

SPECIFICATIONS

ITEMS	DESCRIPTIONS
CAPACITY	10 POINT
POWER SUPPLY	Screw Terminals at the right of Rack
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131 °F)
HUMIDITY	Less than 90% RH (no condensation)
CONSTRUCTION	AL metal plates assembly
MOUNTING	EIA standard Rack or surface
CONNECTION	M3 x 6 screw terminals
CASE MATERIAL	AL
COLOR	Black
DIMENSION	W482.8 X H132.5 X D192.5mm
WEIGHT	About 2.2kg

ORDERING CODE

MODEL : DUR - 10G - - -

• RACK POINT
10, 10CHANNEL

• WIRING
1, M3,5 Screw terminal

• POWER SUPPLY
1, AC 110V 2, AC 220V

DIMENSION

