

2 ISOLATED OUTPUTS CONVERTER

■ FEATURE

- 2&3 Isolated output
- Actualization of high accuracy
- Free voltage power (AC85~264V) / DC24V
- 3outputs High speed function (DWHI :1msec)

DW - SERIES



CE

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General Specifications



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

This instrument is a high accurate converter that provides simultaneously all transmitters such as pressure transmitter, flow transmitter, and level transmitter with power supply and signal conversion.

Also, It is isolated two outputs and contains overcurrent and overvoltage protection circuit inside.

It is especially advantageous to use both isolator and power distributor that changes wiring jumper.

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	$\pm 0.015\% / ^\circ C$	
RESPONSE TIME	Less than 0.5Sec (0~90%)	
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V	
DIELECTRIC - STRENGTH	Input - Power Input - Output1 - Output2 Input1 - Output2	AC 1,000V AC 1,000V AC 1,000V
		1 Minute
POWER SUPPLY	ISOLATOR : 5VA POWER DISTRIBUTOR : 7VA	DC 24V 100mA DC 24V 130mA
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131°F)	
HUMIDITY	Less than 90% RH (no condensation)	
CASE MATERIAL	ABS	
COLOR	Black	
WEIGHT	About 200g	
DIMENSION	W50 X H80 X D137mm	
MOUNTING	DIN RAIL	

ORDERING CODE

MODEL : DWIP -

• INPUT SIGNAL

4~20mA DC (2-Wire DC24V)

• OUTPUT1 SIGNAL

7, 4~20mA DC
0, Other Current
(Less than 20mA) F, 1~5V DC
Z, Other Voltage
(Less than 12V)

• OUTPUT2 SIGNAL

7, 4~20mA DC
0, Other Current
(Less than 20mA) F, 1~5V DC
Z, Other Voltage
(Less than 12V)

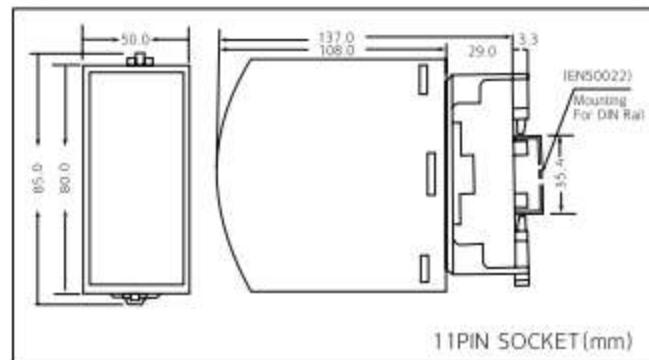
• POWER SUPPLY

1, AC 85V~264V 2, DC 24V

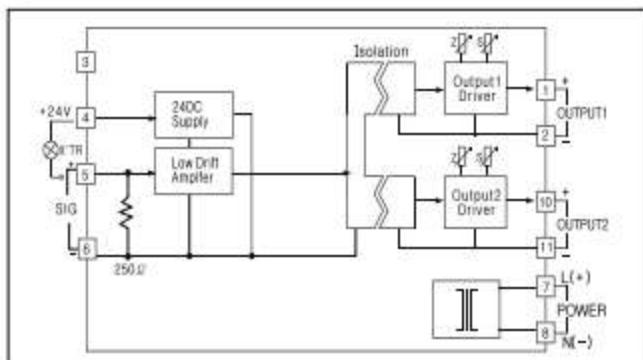
■ OUTPUT LOAD RESISTANCE

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 OUTPUT R.T.D CONVERTER

2出力 激温抵抗体 変換器

This instrument is a high 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

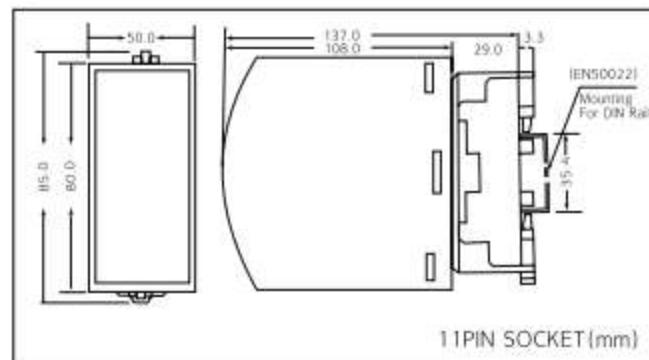
ITEMS	DESCRIPTIONS	
INPUT	Pt 100Ω 3-Wire (Over 50deg) Adjustment needed for 2-wire Bulb Permissible resistance of cable less than 10Ω	
SUPPLY CURRENT TO Pt BULB	DC 2mA	
BURN - OUT	Upper Limit	
OUTPUT	DC Current or DC Voltage signal	
ACCURACY	±0.2% Max.	
TEMP COEFFICIENT	±0.02% / °C	
RESPONSE TIME	Less than 0.5Sec (0~90%)	
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V	
DIELECTRIC - STRENGTH	Input - Power	AC 1,000V
	Input - Output1 - Output2	AC 1,000V
	Input1 - Output2	AC 1,000V
POWER SUPPLY	AC 85~264V, 50~60Hz, 6VA DC 24V ± 10%, 120mA	
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131°F)	
HUMIDITY	Less than 90% RH (no condensation)	
CASE MATERIAL	ABS	
COLOR	Black	
WEIGHT	About 200g	
DIMENSION	W50 X H80 X D137mm	
MOUNTING	DIN RAIL	

■ STANDARD INPUT RANGE

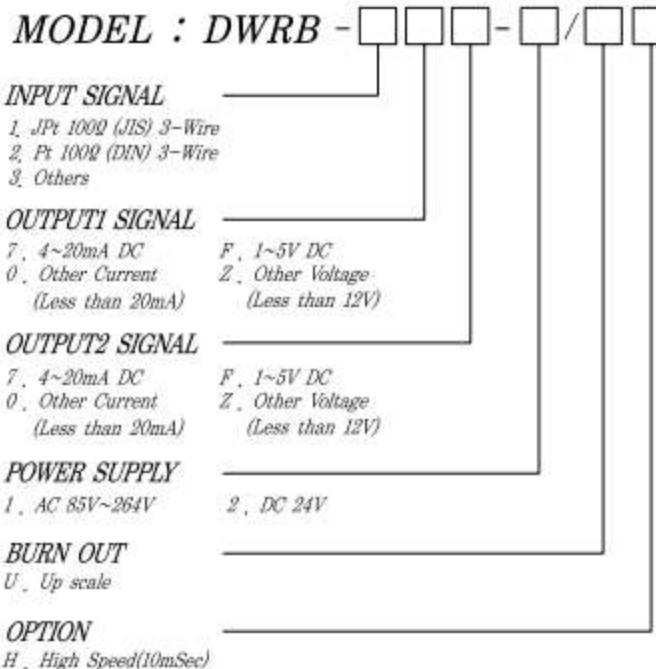
(UNIT : °C)

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

DIMENSION



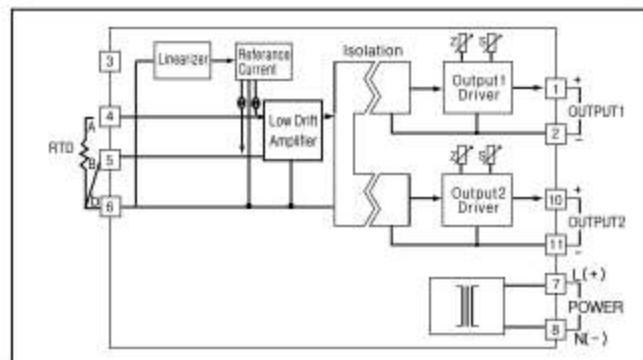
ORDERING CODE



■ 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

BLOCK DIAGRAM



General Specifications



2 OUTPUT THERMOCOUPLE CONVERTER

2出力 热電対 変換器

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

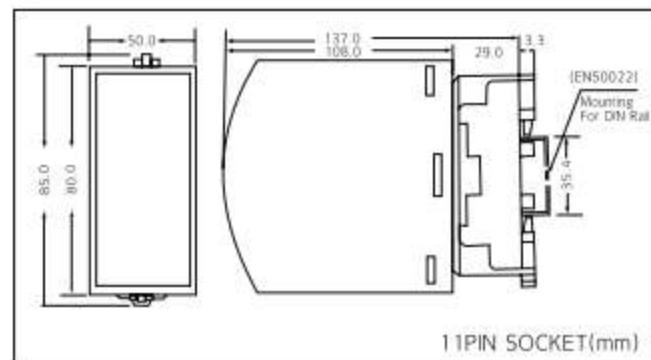
ITEMS	DESCRIPTIONS	
INPUT	Thermocouple (K, J, T, E, B, R, S)	
BURN - OUT	Upper Limit	
OUTPUT	DC Current or DC Voltage signal	
ACCURACY	$\pm 0.3\%$ Max.	
TEMP. COEFFICIENT	$\pm 0.02\% / ^\circ C$	
RESPONSE TIME	Less than 0.5Sec (0~90%)	
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V	
DIELECTRIC - STRENGTH	Input - Power Input - Output1 - Output2 Input1 - Output2	AC 1,000V AC 1,000V AC 1,000V
POWER SUPPLY	AC 85 ~ 264V, 50~60Hz 6VA DC 24V ± 10%, 120mA	
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131°F)	
HUMIDITY	Less than 90% RH (no condensation)	
CASE MATERIAL	ABS	
COLOR	Black	
WEIGHT	About 200g	
DIMENSION	W50 X H80 X D37mm	
MOUNTING	DIN RAIL	

■ STANDARD INPUT RANGE

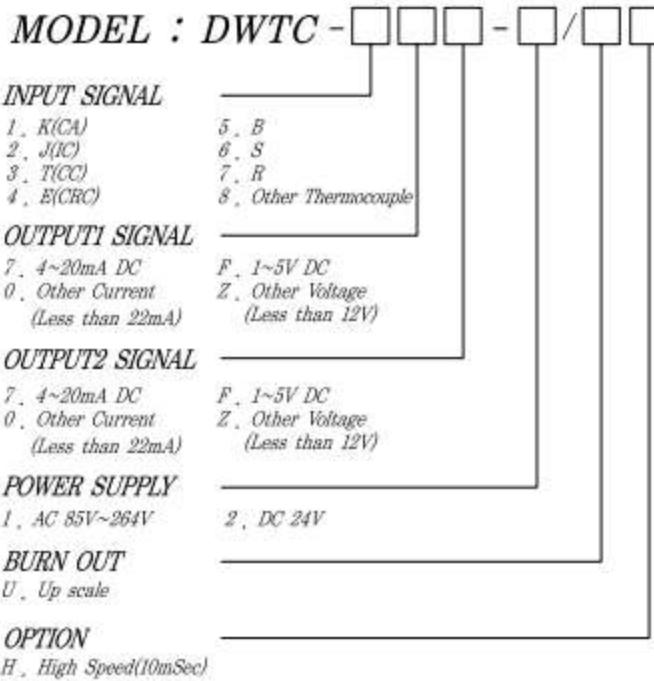
(UNIT : °C)

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

DIMENSION



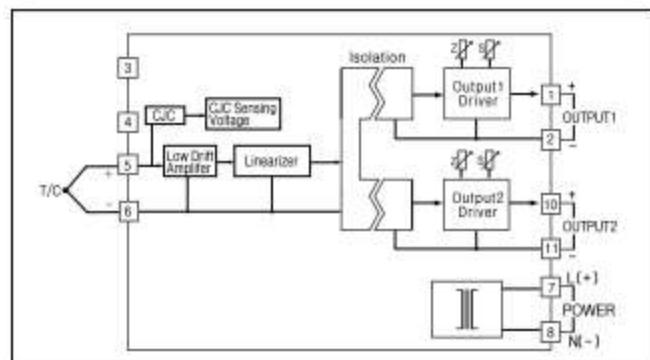
ORDERING CODE



■ 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

BLOCK DIAGRAM



General Specifications



2 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.

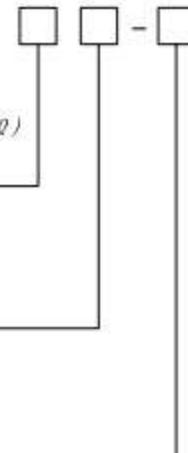
It is especially advantageous to construct loop because input and output are separated completely and isolated between two outputs.

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	$\pm 0.015\% / ^\circ C$						
RESPONSE TIME	Less than 0.5Sec (0~90%)						
INSULATION RESISTANCE	Greater than $100M\Omega$ at DC 500V						
DIELECTRIC - STRENGTH	<table border="1"> <tr> <td>Input - Power</td> <td>AC $1,000V$</td> </tr> <tr> <td>Input - Output1 - Output2</td> <td>AC $1,000V$</td> </tr> <tr> <td>Input1 - Output2</td> <td>AC $1,000V$</td> </tr> </table> 1 Minute.	Input - Power	AC $1,000V$	Input - Output1 - Output2	AC $1,000V$	Input1 - Output2	AC $1,000V$
Input - Power	AC $1,000V$						
Input - Output1 - Output2	AC $1,000V$						
Input1 - Output2	AC $1,000V$						
POWER SUPPLY	AC $85 \sim 264V, 50 \sim 60Hz$ 5VA DC $24V \pm 10\%$ 110mA						
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131°F)						
HUMIDITY	Less than 90% RH (no condensation)						
CASE MATERIAL	ABS						
COLOR	Black						
WEIGHT	About 200g						
DIMENSION	W50 X H80 X D137mm						
MOUNTING	DIN RAIL						

ORDERING CODE

MODEL : DWPC -



• INPUT SIGNAL

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

• OUTPUT1 SIGNAL

7, 4~20mA DC	F, 1~5V DC
0, Other Current	Z, Other Voltage
(Less than 22mA)	(Less than 12V)

• OUTPUT2 SIGNAL

7, 4~20mA DC	F, 1~5V DC
0, Other Current	Z, Other Voltage
(Less than 22mA)	(Less than 12V)

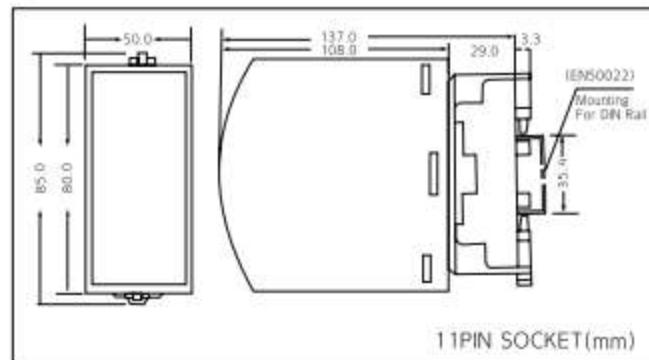
• POWER SUPPLY

1, AC 85V~264V	2, DC 24V
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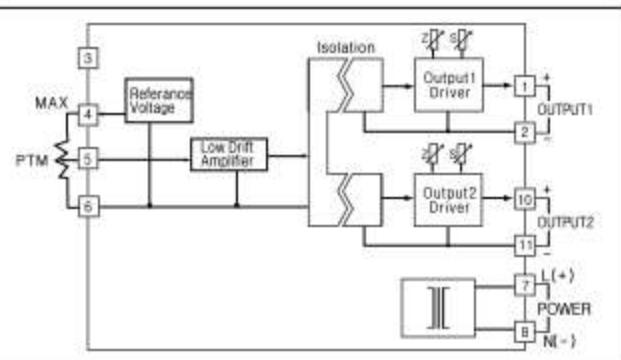
■ OUTPUT LOAD RESISTANCE

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

DIMENSION



BLOCK DIAGRAM



General Specifications



2 OUTPUT SIGNAL ISOLATOR

2出力 信號絶縁 変換器

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 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.

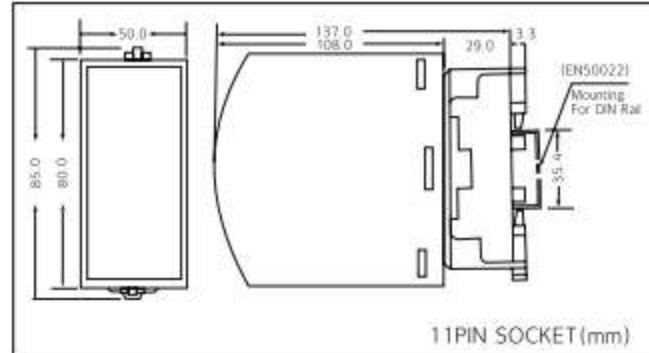
SPECIFICATIONS

ITEMS	DESCRIPTIONS	
INPUT	DC Current or DC Voltage signal	
OUTPUT	DC Current or DC Voltage signal	
ACCURACY	$\pm 0.1\%$ Max	
TEMP. COEFFICIENT	$\pm 0.015\% / ^\circ C$	
RESPONSE TIME	Less than 0.5Sec (0~90%)	
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V	
DIELECTRIC - STRENGTH	Input - Power Input - Output1 - Output2 Input1 - Output2	AC 1,000V AC 1,000V AC 1,000V
POWER SUPPLY	AC 85 ~ 264V, 50~60Hz 5VA DC 24V $\pm 10\%$ 110mA	
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131°F)	
HUMIDITY	Less than 90% RH (no condensation)	
CASE MATERIAL	ABS	
COLOR	Black	
WEIGHT	About 200g	
DIMENSION	W50 X H80 X D37mm	
MOUNTING	DIN RAIL	

■ 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 : DWSI - -

• INPUT SIGNAL

- 1. 0~1mA DC
 - 2. 0~10mA DC
 - 3. 0~16mA DC
 - 4. 0~20mA DC
 - 5. 1~5mA DC
 - 6. 2~10mA DC
 - 7. 4~20mA DC
 - 0. Other Current
- A. 0~10mV DC
 - B. 0~100mV DC
 - C. 0~1V DC
 - D. 0~5V DC
 - E. 0~10V DC
 - F. 1~5V DC
 - Z. Other Voltage

• OUTPUT1 SIGNAL

- 7. 4~20mA DC
 - 0. Other Current
 - (Less than 22mA)
- F. 1~5V DC
 - Z. Other Voltage
 - (Less than 12V)

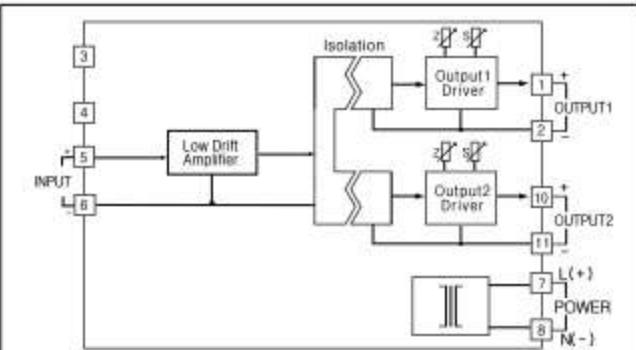
• OUTPUT2 SIGNAL

- 7. 4~20mA DC
 - 0. Other Current
 - (Less than 22mA)
- F. 1~5V DC
 - Z. Other Voltage
 - (Less than 12V)

• POWER SUPPLY

- 1. AC 85V~264V
- 2. DC 24V

BLOCK DIAGRAM



General Specifications



2 OUTPUT REVERSE CONVERTER

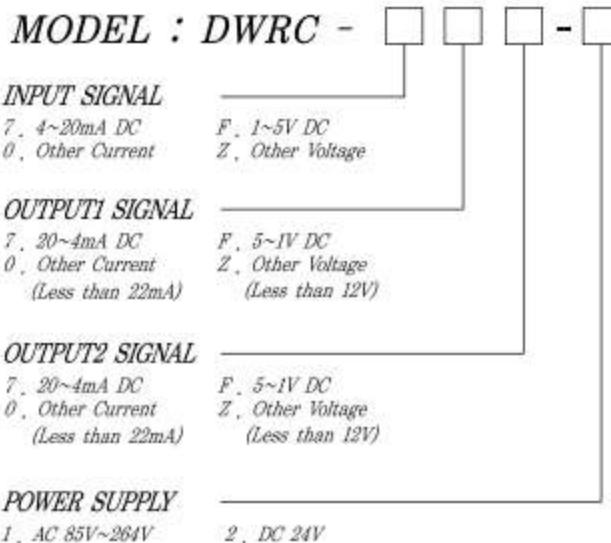
2出力 逆信号 変換器

This instrument receives DC voltage and current as an input signal then reverse output signals of all instrument if the reverse is needed. It is especially advantageous to construct loop because input and output are separated completely and isolated between two outputs. In the mounting method is DIN RAIL mounting.

SPECIFICATIONS

ITEMS	DESCRIPTIONS	
INPUT	DC Current or DC Voltage signal	
OUTPUT	DC Current or DC Voltage signal	
ACCURACY	$\pm 0.1\%$ Max	
TEMP. COEFFICIENT	$\pm 0.015\% / ^\circ C$	
RESPONSE TIME	Less than 0.5Sec (0~90%)	
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V	
DIELECTRIC - STRENGTH	Input - Power Input - Output1 - Output2 Input1 - Output2	AC 1,000V AC 1,000V AC 1,000V
POWER SUPPLY	AC 85 ~ 264V, 50~60Hz 5VA DC 24V ± 10% 110mA	
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131°F)	
HUMIDITY	Less than 90% RH (no condensation)	
CASE MATERIAL	ABS	
COLOR	Black	
WEIGHT	About 200g	
DIMENSION	W50 X H80 X D137mm	
MOUNTING	DIN RAIL	

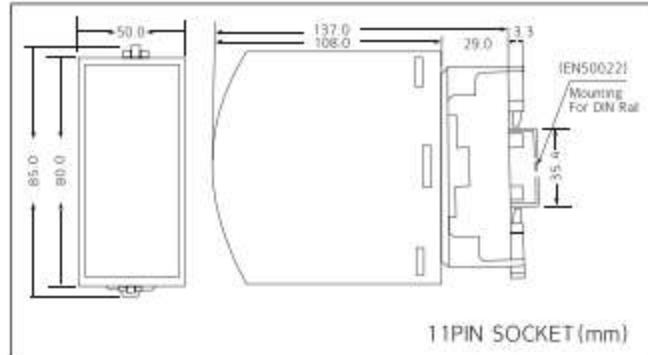
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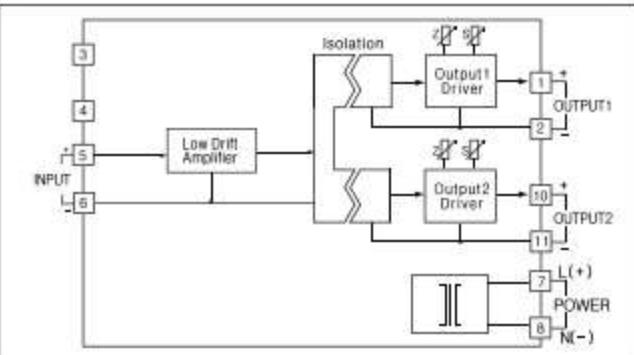
■ OUTPUT LOAD RESISTANCE

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 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	±0.015% / °C	
RESPONSE TIME	Less than 0.5Sec (0~90%)	
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V	
DIELECTRIC - STRENGTH	Input - Power Input - Output1 - Output2 Input1 - Output2	AC 1,000V AC 1,000V AC 1,000V
POWER SUPPLY	AC 85 ~ 264V, 50~60Hz 7VA DC 24V ± 10% 130mA	
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131°F)	
HUMIDITY	Less than 90% RH (no condensation)	
CASE MATERIAL	ABS	
COLOR	Black	
WEIGHT	About 200g	
DIMENSION	W50 X H80 X D137mm	
MOUNTING	DIN RAIL	

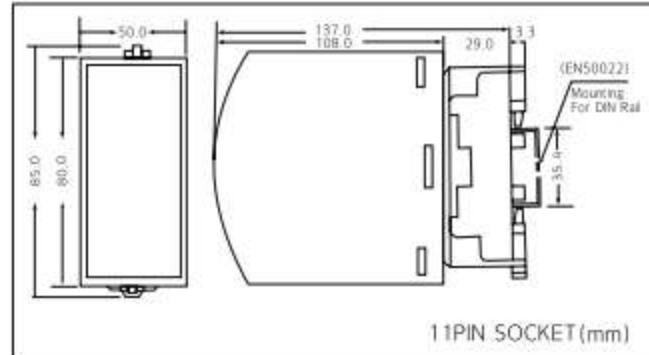
ORDERING CODE

MODEL : DWLS -	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• EXT. VOLTAGE				
7. DC 5V F. DC 10V Z. Other Voltage				
• LOAD CELL				
1. ImV/V 2. Other				
• OUTPUT1 SIGNAL				
7. 4~20mA DC 0. Other Current (Less than 22mA) F. 1~5V DC Z. Other Voltage (Less than 12V)				
• OUTPUT2 SIGNAL				
7. 4~20mA DC 0. Other Current (Less than 22mA) F. 1~5V DC Z. Other Voltage (Less than 12V)				
• POWER SUPPLY				
1. AC 85V~264V 2. DC 24V				

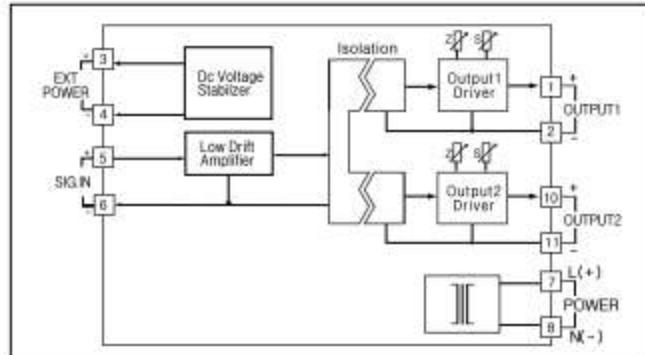
■ OUTPUT LOAD RESISTANCE

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



3 OUTPUT HIGH SPEED ISOLATOR

3 出力 高速 変換器

This instrument receives DC voltage and current as an input signal and provides conversion output when the input & output is separated completely. Especially an input, an output and power are isolate using a transformer and it is called "3 ways isolator", this instrument is a high speed response converter like computer interface.

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

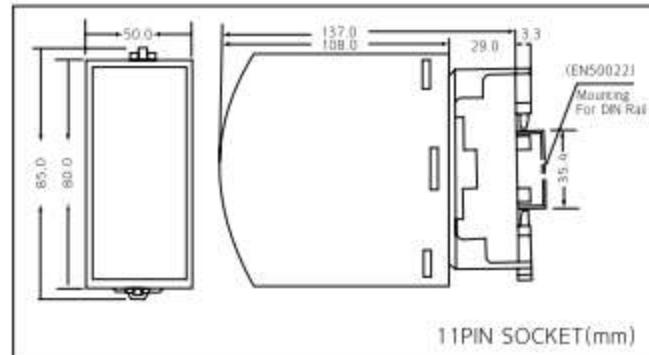
SPECIFICATIONS

ITEMS	DESCRIPTIONS		
INPUT	DC Current or DC Voltage signal		
OUTPUT	DC Voltage(1~5V) or DC Current(4~20mA)Signal		
ACCURACY	$\pm 0.1\%$ Max		
TEMP. COEFFICIENT	$\pm 0.015\% / ^\circ C$		
RESPONSE TIME	Less than 1mSec (0~90%)		
INSULATION RESISTANCE	Greater than 100M Ω at DC 500V		
DIELECTRIC - STRENGTH	Input - Power AC 1,500V Input - Output1, Output2, Output3 AC 1,500V Input1 - Output2 - Output3 AC 1,500V	1 Minute	
POWER SUPPLY	AC 100/220, 50/60Hz, TVA		
AMBIENT - TEMP	-5 ~ +55°C (20 ~ 130°F)		
HUMIDITY	Less than 90% RH (no condensation)		
CASE MATERIAL	ABS		
COLOR	Black		
WEIGHT	About 400g		
DIMENSION	W50 X H80 X D137mm		
MOUNTING	DIN RAIL		

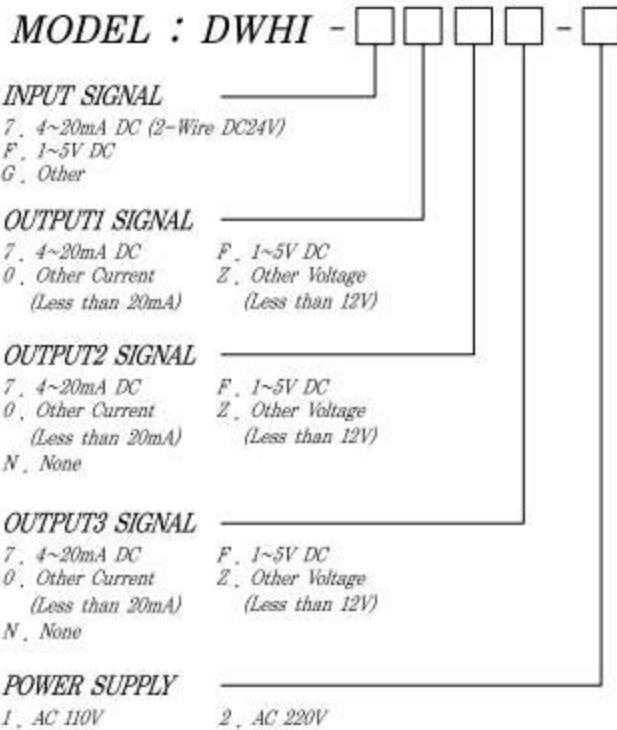
■ OUTPUT LOAD RESISTANCE

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

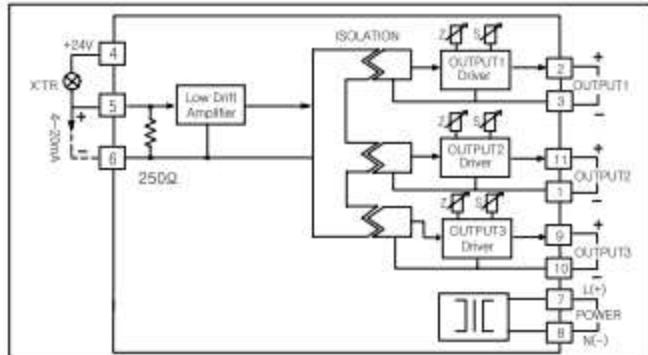
DIMENSION



ORDERING CODE



BLOCK DIAGRAM



General Specifications



2 OUTPUT POWER DISTRIBUTOR WITH SQUARE ROOT EXTRACTOR 2出力 傳送器用 電源 開平演算器(√)

This instrument is a high accurate converter that 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 over voltage inside.

It has a calculating function linear compensated the root scale of current output according to the flow characteristic.

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	$\pm 0.3\%$ Max.	
TEMP. COEFFICIENT	$\pm 0.015\% / ^\circ C$	
RESPONSE TIME	Less than 0.5Sec (0~90%)	
INSULATION RESISTANCE	Greater than 100MΩ at DC 500V	
DIELECTRIC - STRENGTH	Input - Power Input - Output1 - Output2 Input - Output2	AC 1,000V AC 1,000V AC 1,000V
POWER SUPPLY	AC 85 ~ 264V, 50~60Hz 7VA DC 24V $\pm 10\%$ 130mA	
AMBIENT - TEMP	-5 ~ +55°C (23 ~ 131°F)	
HUMIDITY	Less than 90% RH (no condensation)	
CASE MATERIAL	ABS	
COLOR	Black	
WEIGHT	About 200g	
DIMENSION	W50 X H80 X D137mm	
MOUNTING	DIN RAIL	

ORDERING CODE

MODEL : DWPQ -

-

• INPUT SIGNAL

DC 4~20mA (2-Wire DC24V)

• OUTPUT1 SIGNAL

7. 4~20mA DC	F. 1~5V DC
0. Other Current	Z. Other Voltage
(Less than 22mA)	(Less than 12V)

• OUTPUT2 SIGNAL

7. 4~20mA DC	F. 1~5V DC
0. Other Current	Z. Other Voltage
(Less than 22mA)	(Less than 12V)

• POWER SUPPLY

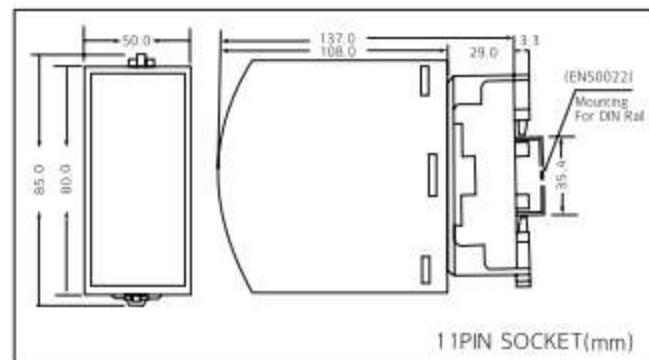
1. AC 85V~264V

2. DC 24V

■ 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

