슬림형 변환기

SLIM TYPE ISOLATED CONVERTER(SOCKET)

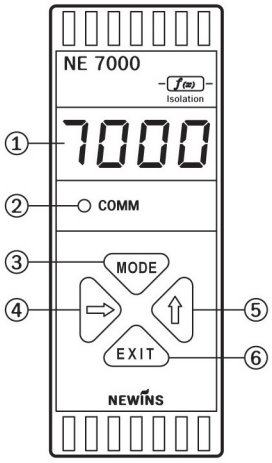
FEATURES

- **Multi-range input** (T/C, RTD, mV, V, mA, Etc)
- **High accuracy 16bit A/D converter**
- **Peak hold function** (Highest & Lowest)
- **RS-485 Communication interface**
- **2, 4 points alarm & Dead band set**
- **Burnout function**
- **Isolation current output** (DC 4.00~20.00mA) **& Output scaling**
- **Sensor power source DC 24V in STD specification**
- **Free voltage** (AC 85~265V, 45~65Hz)

SPECIFICATIONS

- **Measuring and display cycle** : 200ms(mV, Volt, mA type)
  400ms(TC, RTD type)
- **Input resistance** : Volt-400kΩ
  Others type-1MΩ
- **Signal source resistance** : Pt 100Ω type-30Ω/line
  Others type-300Ω/line
- **CMRR(Common Mode Rejection Ratio)** : 140dB or more
- **NMRR(Normal Mode Rejection Ratio)** : 60dB or more
- **Moving average filter**
- **Built-in sensor power source** : DC 24V 30mA ±0.5%
- **Accuracy** : ±0.2% FS
- **Isolation current output**
  (2 output is isolation between output)
  Current : DC 4.00~20.00mA
  Maximum load resistance : 600Ω
  Isolation resistance(Input-Output) : 100MΩ or more (DC 500V)
- **Isolation voltage output(Option)**
  Voltage : DC 0~10V
  Minimum load resistance : 1kΩ
  Isolation resistance(Input-Output) : 100MΩ or more (DC 500V)
- **Alarm output(Alarm setter)**
  Contact output type : Normal open, Normal close
  Max switching power : 60W 125VA
  Max switching voltage : DC 220V, AC 250V
  Max switching current : DC 2A, AC
  Max Carrying current : DC 3A, AC
- **Ambient temperature & Humidity**
  Operation : -10~50℃, 10~90%
  Storage : -20~70℃, 5~95%
- **Power supply**
  Voltage : AC 85~265V(45~65Hz)
  DC 24V(Option)
  Power consumption : Max 4VA
  Isolation resistance : 100MΩ, DC 500V
  (FG-Input, FG-Power, Power-Input, Input-Output)
- **Etc**
  Weight : 200g
  Mounting : Din rail & wall mounted
  Dimension : 30.5(W) X 80(H) X 102(D)mm

PARTS NAME



① Measured value display
② Communication lamp
③ MODE Key :
Storage the set data and change the operation menu
④ ⇨ Key :
Enter into the data setting mode and modify the changed location
⑤ ⇧ Key :
Change the data value
⑥ EXIT Key :
Out of mode

INPUT TYPE

Sensor Type		Range	Scale	Symbol
TC	B(PR)	0~1800℃	-	tC-b
	R(PR)	0~1750℃	-	tC-r
	S(PR)	0~1750℃	-	tC-S
	K(CA)	-200~1350℃	-	tC-K
	E(CRC)	-199.9~700.0℃	-	tC-E
	J(IC)	-199.9~800.0℃	-	tC-J
	T(CC)	-199.9~400.0℃	-	tC-t
Volt	mV	-50.0~50.0mV	-1999~9999	mV
	Volt	-1.000~1.000V	-1999~9999	1V
	Volt	-10.0~10.0V	-1999~9999	10V
mA	mA	4.00~20.00mA	-1999~9999	mA
PT	Pt100Ω	-199.9~800.0℃	-	d-Pt
	JPt100Ω	-199.9~500.0℃	-	J-Pt
Pot	500	0~500Ω	-1999~9999	500Ω
	5k	0~5kΩ	-1999~9999	5K

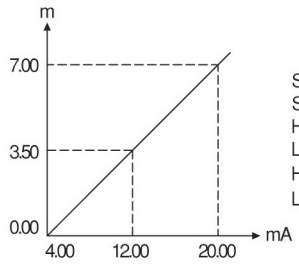
* mA input needs 250Ω(±0.1% 25ppm) resistance spiral on outside

MAJOR FUNCTIONS

▷ Display scaling function(mV, Volt, mA only)

This function changes and sets the display value according to scale and input range.

Ex) In case of input range 4.00~20.00mA and Level 0.00~7.00m

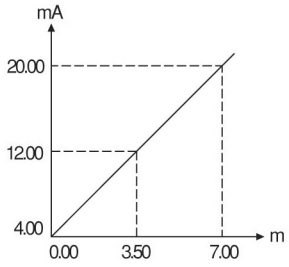


Setting to
Sensor Type : mA
High Range : 20.00mA
Low Range : 4.00mA
High Scale : 7.00m
Low Scale : 0.00m

▷ Output scaling function

This function can change the 4.00~20.00mA value as the output scale.

Ex) In case of display value 0.00~7.00m,
Output 4.00~20.00mA



Setting to
High Out Scale : 7.00m
Low Out Scale : 0.00m

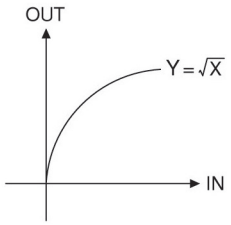
▷ Function(mV, Volt, mA type)

Lin

Pass the input as it is.
Used for general input type and linearity input.

root

Pass the input after √. Used for flow rate by orifice.



If X > 0
Y = √{(pv−low scale)
x (high scale−low scale)}
+ low scale
If X <= 0 Y = 0

LInt

Like level measuring, when it does not display measuring under zero, it always can display zero by using limit function.

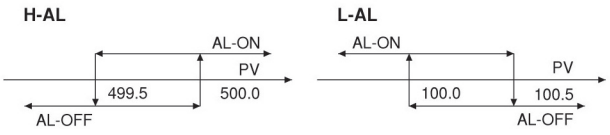
▷ Alarm function

Alarm type : High, Low
The alarm consists of 2 relays, and it can output relay contact output individually

Ex) AL-1 : High alarm value 500.0,
AL-2 : Low alarm value 100.0,
Alarm dead band setting 0.5

The high alarm(AL-1) is ON when the present value(PV) is 500.0 or more, and OFF when 499.5 or less.

The low alarm(AL-2) is OFF when the present value(PV) is 100.5 or more, and ON when 100.0 or less.



▹ Sensor compensation function

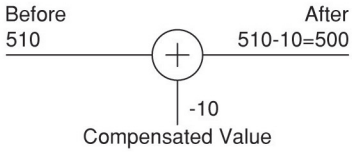
The function is useful for compensating error by long sensor line or changed zero point by aged sensor.

Ex) Before sensor adjust = 510℃

After sensor adjust

= measured value + compensated value

= 510 - 10 = 500℃



▹ Peak hold function

Peak mode 0 High peak mode

Remember the highest input value and display the highest value when pressing the key.

Peak mode 1 Low peak mode

Remember the lowest input value and display the lowest value when pressing the key.

Peak mode 2 High peak & Display mode

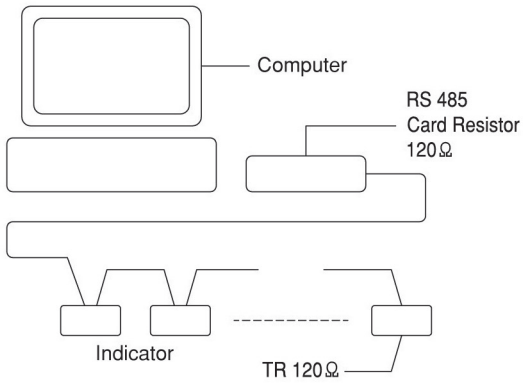
Remember the highest input value, display the highest value in ordinary times, and output the highest transmit output.

Peak mode 3 Low peak & Display mode

Remember the lowest input value, display the lowest value in ordinary times, and output the lowest transmit output.

▹ Communication interface

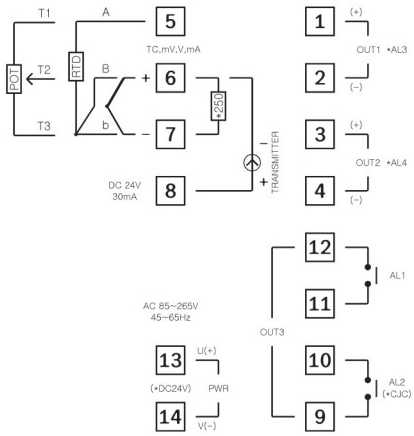
It is possible to communicate with computer and to monitor remote by using RS-485 communication interface.



ORDERING CODE

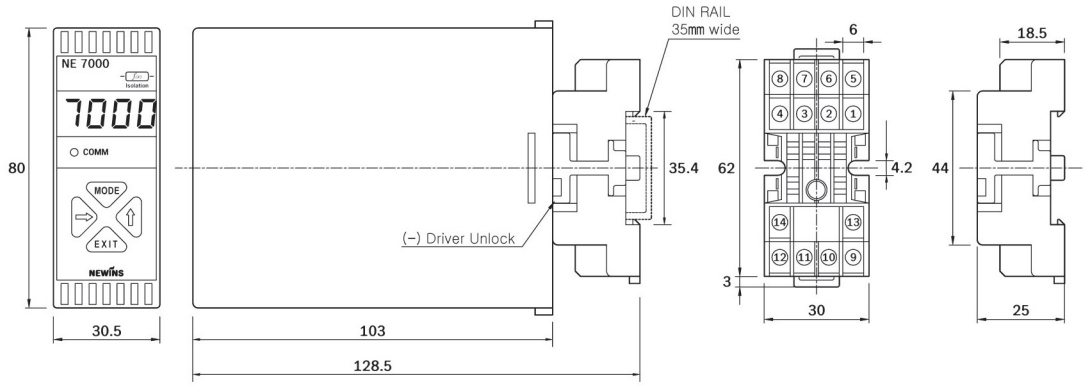
NE 70(*NE 73)		-		Description
Analog output	00			DC 4.00~20.00mA
	01			DC 4.00~20.00mA (2 Output)
	02			DC 1~5V
	03			DC 1~5V (2 Output)
	04			DC 0~10V
	05			DC 0~10V (2 Output)
	06			DC 4.00~20.00mA + 1Alarm
	07			DC 4.00~20.00mA + 2Alarm
	08			DC 1~5V + 1Alarm
	09			DC 1~5V + 2Alarm
	10			DC 4.00~20.00mA + RS-485
	11			DC 1~5V + RS-485
	12			Etc
Power			0	AC 85~265V (45~65Hz)
			1	DC 12~32V
			2	Etc

TERMINAL DIAGRAM



*NOTE
1.mA Input (+,-)Needs 250 OHM 0.05% 25ppm Resistance
2.*TC-TYPE CJC ONLY(AL2 NONE)

DIMENSION & PANEL CUT



* When mounting, no extra space is needed between units