

### FEATURES

- Multi-range input (T/C, RTD, Volt, mA, etc).
- High accuracy 16bit A/D converter
- Peak hold function (Highest & Lowest)
- Burnout function
- 2points alarm & Dead band set
- Isolation current output(4~20mADC) & Output scaling
- Sensor power source DC24V in STD specification.
- RS-485 Communication interface.
- Slim size (30.5X80X102)
- Free voltage (AC 85~265V, 45~65Hz)



### SPECIFICATIONS

- **Measuring and display cycle** : 200ms(mV, Volt, mA type)  
400ms(TC, RTD type)
- **Input resistance** : Volt - 400k $\Omega$   
Others type-1M $\Omega$
- **Signal source resistance** : Pt100 $\Omega$  type - 30 $\Omega$ /line  
Others type - 300 $\Omega$ /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** : DC24V 30mA $\pm$ 0.5%
- **Accuracy** :  $\pm$  0.2%FS
- **Isolation current output** (2output is isolation between output)
  - Current : 4~20mADC
  - Maximum load resistance : 600 $\Omega$
  - Isolation resistance (Input-Output): 100M $\Omega$  or more (500VDC)
- **Isolation Voltage output (Option)**
  - Voltage : 0~10VDC
  - Minimum load resistance : 1k $\Omega$
  - Isolation resistance : 100M $\Omega$  or more (500VDC)
- **Alarm Output (Alarm setter)**
  - Contact output type : Normal open,  
Normal Close
  - Max switching power : 60W 125VA
  - Max switching voltage : 220VDC, 250VAC
  - Max switching Current : 2A DC, AC
  - Max Carrying current : 3A DC, AC
- **Ambient temperature & Humidity**
  - Operation : -10 $^{\circ}$ C~60 $^{\circ}$ C, 10%~90%
  - Storage : -20 $^{\circ}$ C~70 $^{\circ}$ C, 5%~95%
- **Power supply**
  - Voltage : Free Voltage  
AC85~265V 45~65HZ  
DC24V(Optional)
  - Power consumption : 10VA Max
  - Isolation resistance : 100M $\Omega$  500VDC  
(FG-Input, FG-Power,  
Power-Input, Input-Output)
- **Communication interface**
- **Etc**
  - Weight : 200g
  - Mounting : Din rail & wall mounted
  - Dimension : 30.5(W) $\times$  80(H) $\times$  102(D)mm

INPUT TYPE

Type		Range	Scale	Symbol
TC	B(PR)	0~1800°C	-	ℓC - b
	R(PR)	0~1750°C	-	ℓC - r
	S(PR)	0~1750°C	-	ℓC - s
	K(CA)	-200~1350°C	-	ℓC - ℓ
	E(CRC)	-200.0~700.0°C	-	ℓC - E
	J(IC)	-200.0~800.0°C	-	ℓC - J
	T(CC)	-200.0~400.0°C	-	ℓC - t
Volt	mV	-50~50mV	-1999~9999	ñv
	Volt	-1.000~1.000V	-1999~9999	!v
	Volt	-10~10V	-1999~9999	!0v
mA	mA	4~20mA	-1999~9999	ñA
PT	Pt100Ω	-199.9~800.0°C	-	Pℓ
	JPt100Ω	-199.9~500.0°C	-	JPℓ

※ mA input needs 250Ω 0.05% 25ppm resistance Spiral on outside

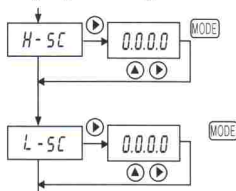
PARTS NAME



- 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

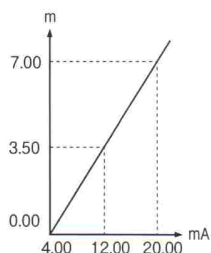
MAJOR FUNCTIONS

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



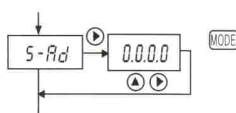
This Function changes and sets the display value according to scale and input range.

Ex) In case of input range 4.0~20.0mA and Level 0.000~7.000m



Setting to  
 Sensor type : mA  
 High Range : 20.00mA  
 Low Range : 4.00mA  
 High Scale : 7.000  
 Low Scale : 0.000

• Sensor compensation function



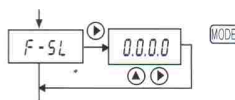
The function is useful for compensating error by long sensor

line or changed zero point by aged sensor.

Ex) Before sensor adjust = 510

After sensor adjust = measured value + compensated value  
 = 510 - 10 = 500

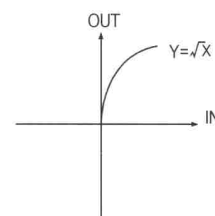
• Function (mV, Volt, mA type only)



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

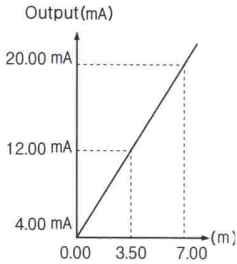
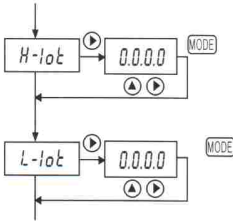
**root** Pass the input after √. Used for flow rate by orifice.

if  $x > 0$   
 $Y = \sqrt{\{(pv - \text{low scale}) \cdot X(\text{high scale} - \text{low scale})\} + \text{low scale}}$   
 if  $x \leq 0$   $Y = 0$



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

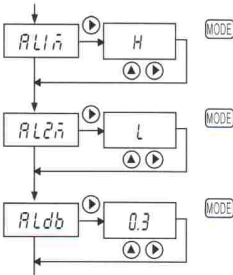
• Output scaling function



This function can change the 4~20mA value as the output scale.

Ex) In case of display value 0.000~7.000m, Output 4~20mA setting to

• Alarm function



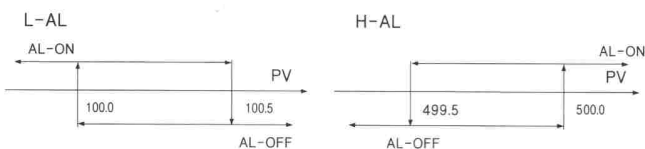
Alarm type : High, Low

The alarm consists of 2 relays, and it can output Relay contact output individually

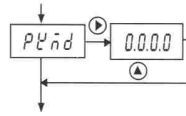
Ex) AL-1:High alarm value 500.0, AL-2:Low alarm value 100.0 alarm dead band setting 0.5

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.



• 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.

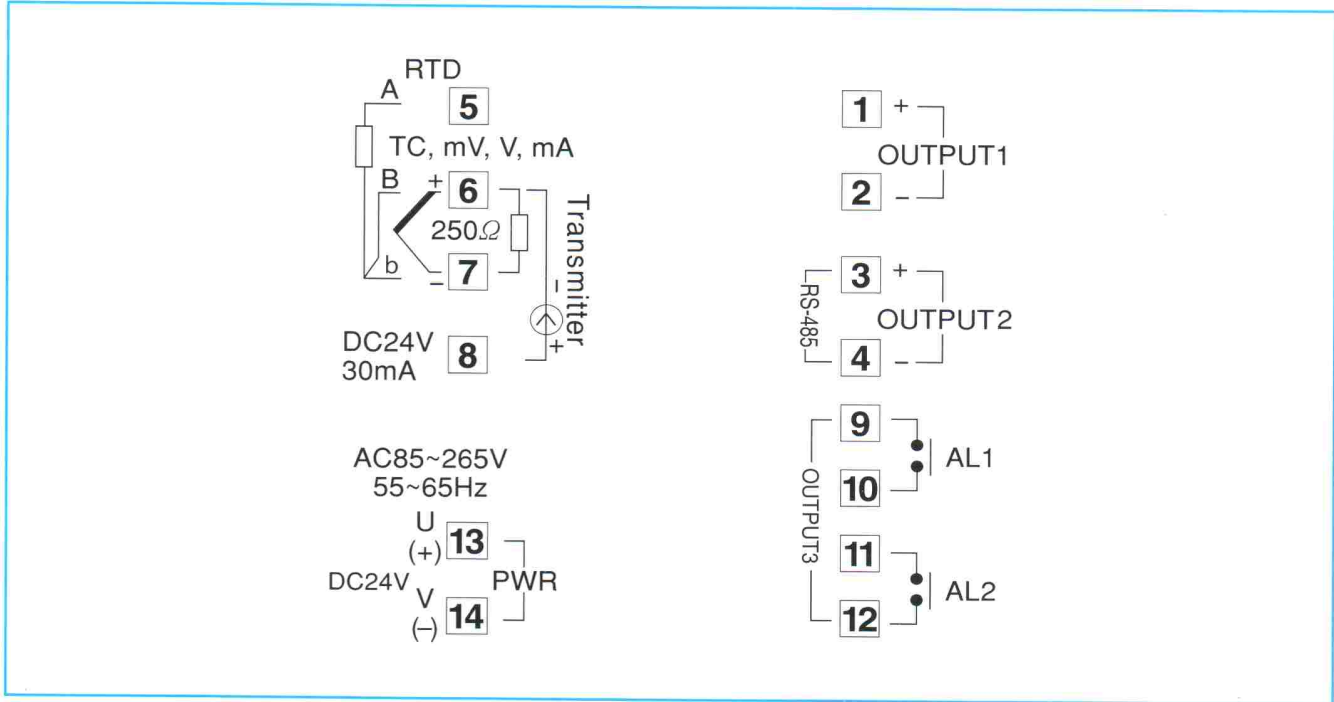
**Peak mode 3:** Low peak & Display mode  
Remember the lowest input value, display the lowest value in ordinary times, and output the lowest transmit output.

ORDERING CODE

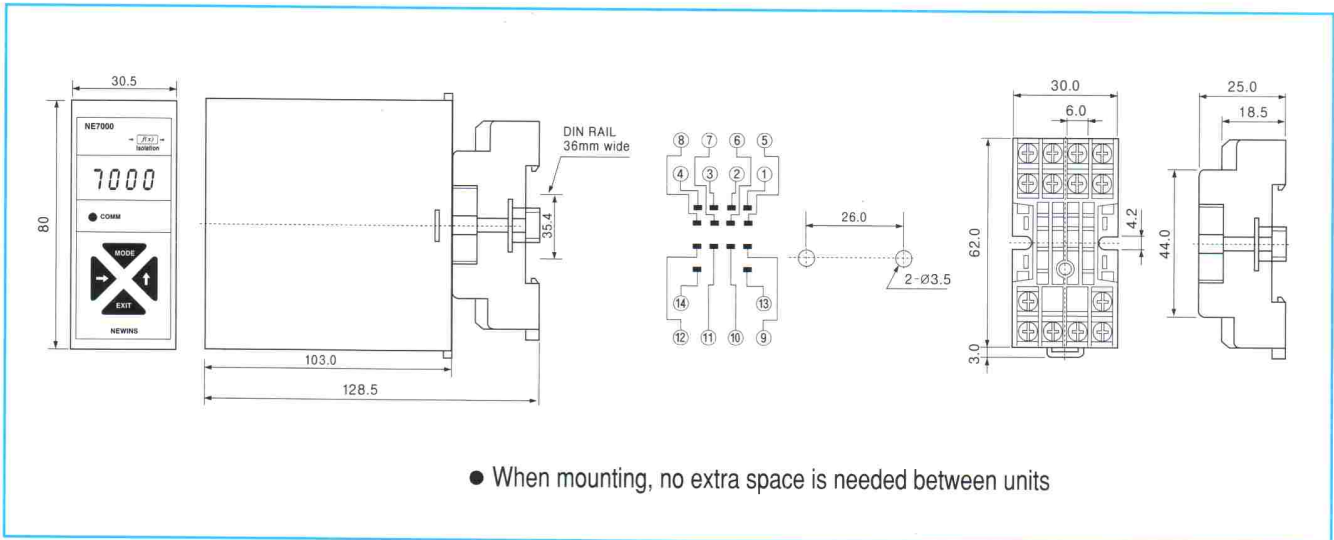
MODEL	DESCRIPTION	
NE70	Isolated Slim Converter Output	
	CODE	Output
	00	4-20mA
	01	4-20mA (2Out)
	02	1-5Volt
	03	1-5Volt (2Out)
	04	0-10Volt
	05	0-10Volt (2Out)
	06	4-20mA+1 Alarm
	07	4-20mA+2 Alarm
	08	1-5Volt + 1 Alarm
	09	1-5Volt + 2 Alarm
	10	4-20mA + RS-485
11	1-5Volt + RS-485	
12	ETC	
CODE	Power Supply	
A	AC85~265V 45~65Hz	
B	DC6~32V	
C	ETC	



**TERMINAL DIAGRAM**



**DIMENSION & PANEL CUT**



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