FEATURES

◉ **Multi-Range input**(TC, RTD, Volt, mV, mA, Etc)

◉ **High accuracy 16bit A/D converter**

◉ **Selectable moving average filter**

◉ **Built-in multiple function**

◉ **DC 4.00~20.00mA 2-wire loop power**

◉ **4 Digit LCD for parameter alteration and PV output on the spot**

Ex d ⅡC T6

A
B
C
D
E
F
G

SPECIFICATIONS

► **Measuring and displaying interval** :
200ms(mV, Volt, mA type)
400ms(TC, RTD type)

► **Input resistance** : Volt type 400kΩ, Other type 1MΩ

► **Signal source resistance** :
PT100Ω..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** : Selectable(None 4, 8, 16)

► **Accuracy** : ±0.25% FS

► **Power** : DC 9~35V

► **Output** : 2-wire DC 4.00~20.00mA
load limit(Vsp9V)/0.022=RΩ

► **Operating condition**
Operating Temp/Humidity : -20~60℃, 0~100% RH
Storage Temp/Humidity : -20~70℃, 5~95% RH

► **Body meterial** : SUS 304 (Ex d ⅡC T6)

► **Degree of protection** : IP-65

► **Etc**
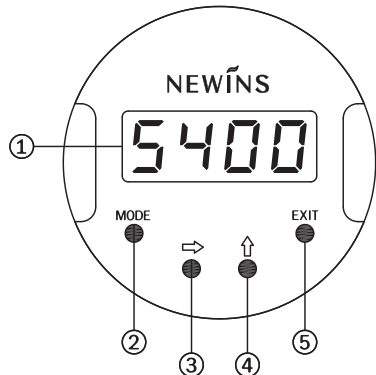Weight : 1.5kg
Mounting : Filed Mount

INPUT TYPE

► **Multi range input**
• Free input selection by code

Sensor Type		Range	Scale	Simbol
TC	B(PR 30%)	0~1800℃	-	tC-b
	R(PR 13%)	0~1750℃	-	tC-r
	S(PR 10%)	0~1750℃	-	tC-S
	K(CA)	-200~1350℃	-	tC-k
	E(CRC)	-200.0~700.0℃	-	tC-E
	J(IC)	-199.9~800.0℃	-	tC-J
	T(CC)	-199.9~400.0℃	-	tC-t
Volt	mV	-100.0~100.0mV	-1999~9999	ñu
	Volt	-10.0~10.0V	-1999~9999	u
mA	mA	4.00~20.00mA	-1999~9999	ñA
PT	Pt100Ω	-199.9~800.0℃	-	d-Pt
	JPt100Ω	-199.9~800.0℃	-	J-Pt

* mA input needs 20Ω 0.05% 25ppm resistance spiral on outside
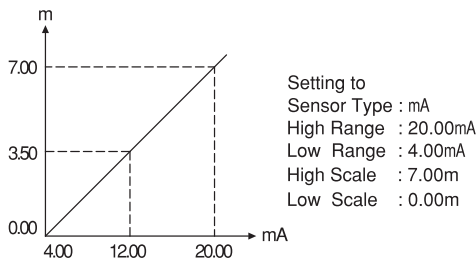
PARTS NAME

① Measured value display
② MODE Key : Storage the set data and
           change the operation menu
③ ⇨ Key : Enter into the data setting mode
           and modify the changed location
④ ⇧ Key : Change the data value
⑤ 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.
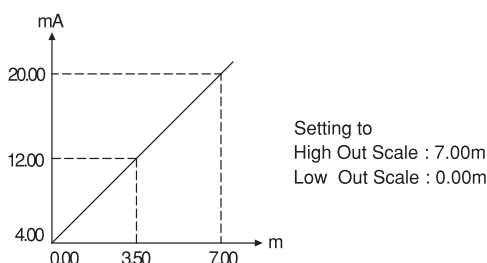
Ex) In case of input range 4.00~20.00mA and
    Level 0.00~7.00m

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
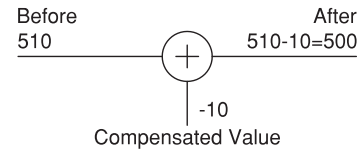Low Out Scale : 0.00m

► **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°C
    After sensor adjust
    = measured value + compensated value
    = 510 - 10 = 500°C

Before   After
510   510-10=500

-10
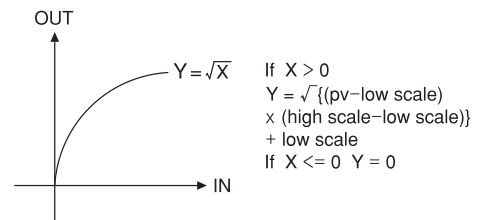Compensated Value

► **Function(mV, Volt, mA type only)**

L in

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

5-rt

Pass the input after $\sqrt{}$. Used for flow rate by orifice.

OUT

$Y = \sqrt{X}$

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

IN

L int

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

► **Filter function**

Filter is moving average filter and it has 4 kinds of function.

nonE

It displays the change of input without filter.

Au 4, 8, 16

It displays in recent input No 4,8,16 sample average.
Setting filter function delays reponse.
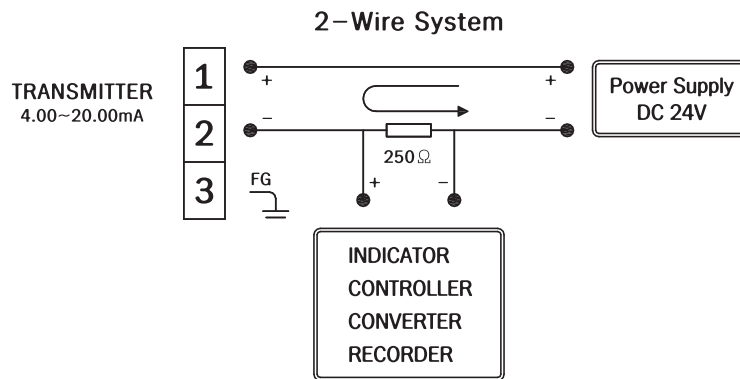Do not use filter when high speed response is needed.
When output and display value are changed by irregular input, it is possible to get regular input and display value by using filter function.

방폭형 2선식 온도 전송기

EXPLOSION PROTECTED TYPE
2-WIRE TEMPERATURE TRANSMITTER

ORDERING CODE

NT 54					Description(Basic)
Input element	B	0			B
	R	0			R
	S	0			S
	K	0			K
	J	0			J
	E	0			E
	T	0			T
	V	1			mV(-100~100mV)
	V	2			V(-10~10V)
	A	0			mA(4~20mA)
	P	1			Pt100Ω at 0℃
	P	2			JPt100Ω
	Z	0			Others element
Explosion proof			E		Ex d II C T6
Sensor					Consult

TERMINAL DIAGRAM

2-Wire System

TRANSMITTER
4.00~20.00mA

1
2
3

FG

250Ω

Power Supply
DC 24V

INDICATOR
CONTROLLER
CONVERTER
RECORDER

A
B
C
D
E
F
G

방폭형 2선식 온도 전송기

DIMENSIONS

* Mounting Bracket

96.4
62.2
PF1/2
PF1/2
86.5
NEWINS
5400
Mounting Bracket
Ground Terminal
DN 50
(2-PIPE)

* Pressure Transmitter

94
PF1/2
26
86.5
Ø68.5
Ground Terminal