

FEATURES

- RGO Color display setting
- Multi-range input (T/C, RTD, Volt, mA, Etc)
- High accuracy 16bit A/D converter
- Peak hold function (Highest & Lowest)
- RS-485 Communication interface
- 4 points alarm & Dead band set
- Isolation current output (DC 4.00~20.00mA) & Output scaling
- Sensor power source DC 24V in STD specification
- Sensor open function (Current Output Hi & Low by KEY)
- Two unit function it can automatically convert the mmHg and kg/cm<sup>2</sup> when measuring the pressure and vacuum



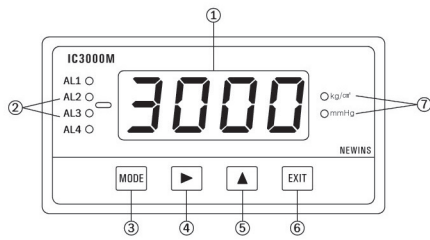
**Color Setting**  
 0 : Red  
 1 : Green  
 2 : Orange

SPECIFICATIONS

- ▶ **Display color** : Red, Green, Orange
- ▶ **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** : 4, 8, 16, 32
- ▶ **Built-in sensor power source** : DC 24V 30mA ±0.5%
- ▶ **Accuracy** : ±0.2% FS
- ▶ **Isolation current output(Optional)**
  - Current : DC 4.00~20.00mA
  - Maximum load resistance : 600Ω
  - Isolation resistance(Input-Output) : 100MΩ or more (DC 500V)
- ▶ **Ambient temperature & Humidity**
  - Operation : -10~50°C, 10~90%
  - Storage : -20~70°C, 5~95%

- ▶ **Alarm(Optional)**
  - Contact output type : Normal open
  - Max switching power : 60W 125VA
  - Max switching voltage : DC 220V, AC 250V
  - Max switching current : DC 2A, AC
  - Max Carrying current : DC 3A, AC
- ▶ **Power supply**
  - Voltage : AC 85~265V(45~65Hz)  
DC 24V(Optional)
  - Power consumption : Max 4VA
  - Isolation resistance : 100MΩ, DC 500V (FG-Input, FG-Power, Power-Input, Input-Output)
- ▶ **Communication interface(Optional)**
  - Type : RS-485
  - Speed : 4800, 9600, 19200bps
  - ID(address) setting : 0~15
- ▶ **Etc**
  - Weight : 500g
  - Mounting : Panel mount
  - Dimension : 99(W) X 51(H) X 112(D)mm

PARTS NAME



- ① Measured value display : RGO Color
- ② Alarm condition display
- 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
- ⑦ Unit

INPUT TYPE

Sensor Type		Range	Scale	Symbol
TC	R(PR 13%)	0~1750°C	-	ℓℓ-r
	K(CA)	-200~1350°C	-	ℓℓ-ℓ
	E(CRC)	-199.9~700.0°C	-	ℓℓ-E
	J(IC)	-199.9~800.0°C	-	ℓℓ-J
	T(CC)	-199.9~400.0°C	-	ℓℓ-ℓ
Volt	mV	-100.0~100.0mV	-1999~9999	ñυ
	Volt	-10.0~10.0V	-1999~9999	υ
mA	mA	4.00~20.00mA	-1999~9999	ñR
PT	Pt100Ω	-199.9~800.0°C	-	d-Pℓ
	JPt100Ω	-199.9~500.0°C	-	J-Pℓ

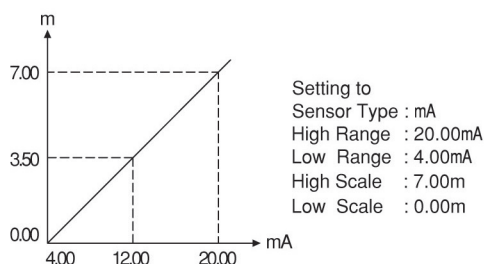
\* mA type : External 250Ω(±0.1% 25ppm) resistance is attached

MAJOR FUNCTIONS

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

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

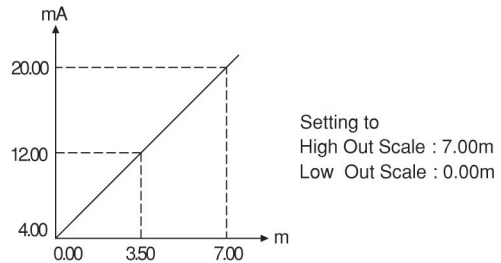
Ex) In case of input range 4.00~20.00mA and Level 0.00~7.00m



▷ 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



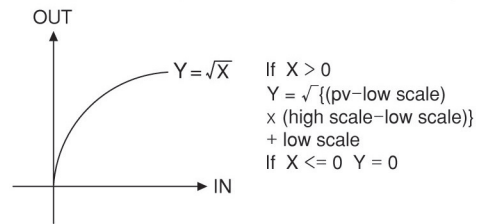
▷ Function(mV, Volt, mA type)

**ℓ in**

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.



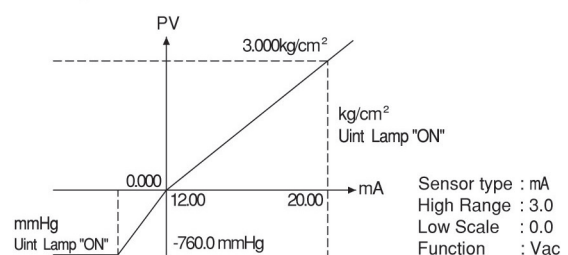
**ℓ ñℓ**

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

**υ Rℓ**

This is the function when measuring from vacuum to pressure(-760.0mmHg~3.000kg/cm<sup>2</sup>) by pressure transmitter, it converts unit and PV to mmHg under Zero value and to scaled kg/cm<sup>2</sup> setting to scale high above zero value. It is possible to trim the zero point in the atmosphere pressure by key used for sensor compensation.

Ex) To see from vacuum to pressure in transmitter specification range -760.0mmHg~3.000kg/cm<sup>2</sup> and output 4.00~20.00mA



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RGB MULTI INDICATOR WITH ALARM

▶ Sensor compensation function

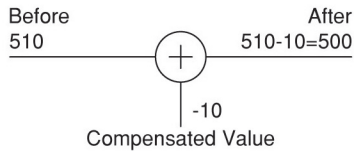
The function is useful for compensating error by long sensor line or changed zero point by aged sensor.

Ex) Before sensor adjust = 510°C

After sensor adjust

= measured value + compensated value

= 510 - 10 = 500°C



▶ Alarm function

Alarm type : High, Low

The alarm consists of 4 relays, and it can output relay contact output individually.

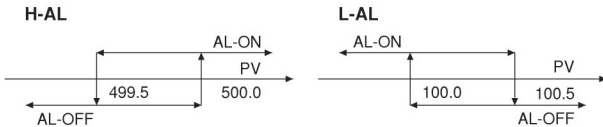
Ex) AL-1 : High alarm value 500.0,

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

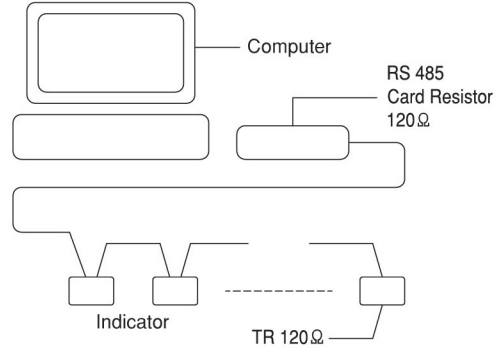
Remember the highest input value, display the highest value in ordinary times, and output the highest transmit output.

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.

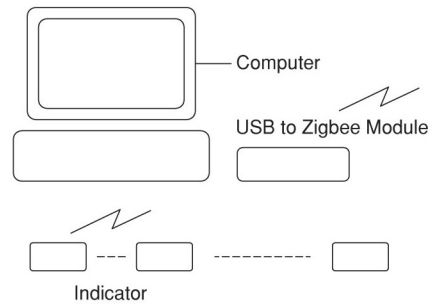
▶ Communication interface

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

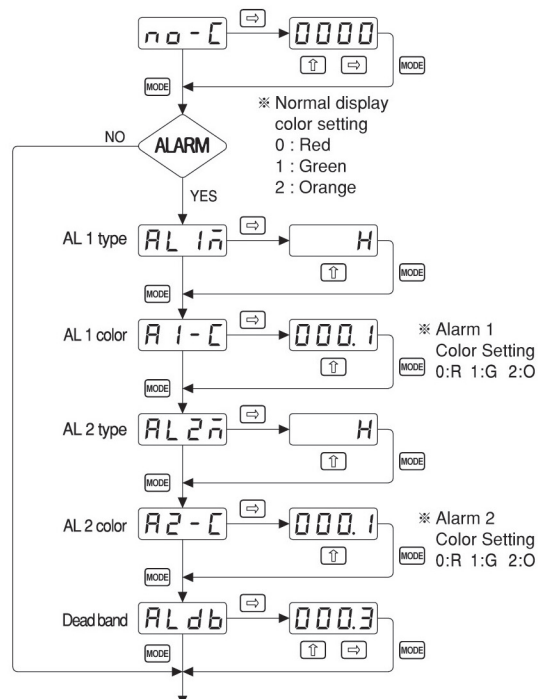


▶ RF Wireless Communication Module(Optional)

- IEEE 802.15.4
- USB to Wifi Module
- SPEED : 38400 bps
- ID : 00~99
- Length : 0~30M



RGB DISPLAY COLOR SETTING



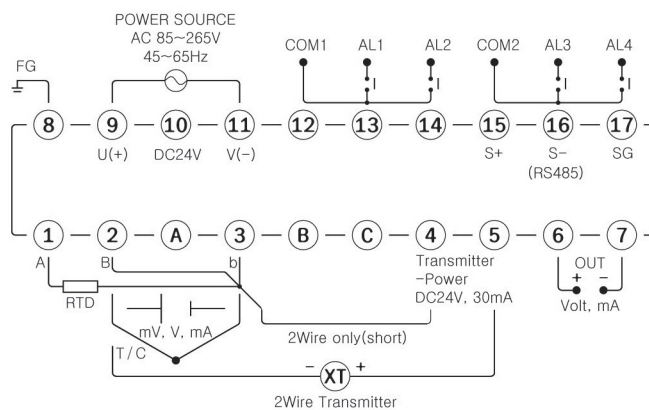
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RGB MULTI INDICATOR WITH ALARM

ORDERING CODE

IC 3				M		Description
Type	1					Indicator
	2					Indicator with 2Alarm
	3					Indicator with 4Alarm
Analog output	0					None
	1					DC 4.00~20.00mA
	2					DC 0.00~10.00V
	3					Etc
Power		0				AC 85~265V (45~65Hz)
		1				DC 24V (20~30V)
		2				Etc
Interface			0			None
			1			RS-485
			2			Etc
Special Input			0			None
			1			Cu(10Ω, 20Ω)
			2			Etc

TERMINAL DIAGRAM



\* mA Input(+ -) Needs 250 OHM 0.05% 25ppm Resistance (2, 3 Pin)

DIMENSION & PANEL CUT

