멀티 지시 경보계

IC 3000W - White Digital Indicator with alarm

Features

- Multi-range input (T/C , RTD , Volt , mA , Etc)
- 4step LED Brightness control
- High accuracy 16bit A/D converter
- Peak hold function (Highest & Lowest)
- Cut off function (low value limit function)
- RS-485 Communication interface
- 4 points alarm & Dead band set
- Isolation current two output (4.0~20.0mA) & Output scaling
- Sensor power source DC 24V in STD specification

Specifications

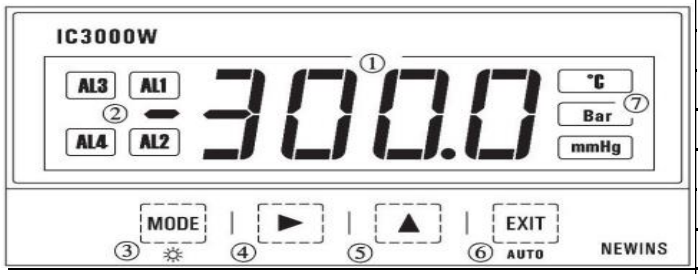
Measuring and display cycle	200ms(mV, Volt, mA type)	**Ambient temperature & Humidity**	
	400ms(TC, RTD type)	Operation	-10~50℃, 10~90%
		Storage	-20~70℃, 5~95%
Input resistance	Volt - 400kΩ	**Power supply**	
	Others type - 1MΩ	voltage	AC 85~265V(45~65Hz)
			DC 24V(option)
Signal source resistance	Pt 100Ω type-30Ω/line	Power consumption	Max 4VA
	Others type-300Ω/line	Isolation resistance	100Ω , DC 500V
			(FG-Input, FG-Power,
CMRR(Common Mode Rejection Ratio)	140dB or more		Power-Input, Input-Output)
NMRR(Normal Mode Rejection Ratio)	50dB or more		
Moving average filter	4 , 8 , 16 , 32	**Communication Interface (option)**	
		Type	RS-485 & modbus.RTU
Built-in Sensor power source	DC 24V 30mA ±0.5%	Speed	4800, 9600, 19200bps
Accuracy	Display ±0.2% FS	ID(address) setting	0 ~ 99
Isolation current output(Option)		**Etc**	
Current	DC 4.00 ~ 20.00mA	Weight	500g
Maximum load resistance	600Ω	Mounting	Panel mount
Isolation resistance(Input-Output)	100MΩ or more (DC 500V)	Dimension	99(W) × 51(H) × 112(D)mm
Alarm(Option)			
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		

INPUT TYPE

Sensor Type		Range	Scale	Simbol
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	mu
	Volt	-1.000~1.000V	-1999~9999	1u
	Volt	-10.0~10.0V	-1999~9999	10u
mA	mA	4.00~20.00mA	-1999~9999	mA
PT	Pt100Ω	-199.9~800.0℃	-	d-Pt
	JPt100Ω	-199.9~500.0℃	-	J-Pt

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

PARTS NAME



① Measured value display : white color

② Alarm condition display

③ "mode" Key : Storage the set data and change the operation menu

④ ▶Key : Enter into the data detting mode
and modify the changed location

⑤ ▲Key : Change the data value

⑥ "EXIT" Key : Out of mode

⑦ Unit

MAJOR FUNCTIONS

FND Bright set function

Mode 1 - FND bright 100%

Mode 2 - FND bright 75%

Mode 3 - FND bright 25%

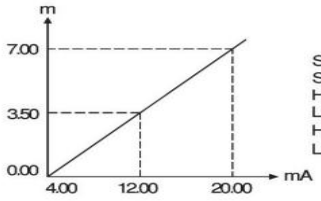
Mode 4 - FND off

This mode is display measure value after 10second disappear measure value. Push the any key expression measure value.

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

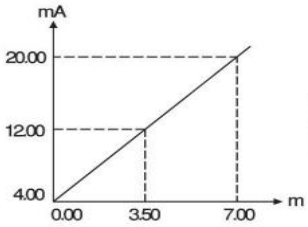


Setting to
Sensor Type : mA
High Range : 20.00mA
Low Range : 4.00mA
High Scale : 7.00m
Low Scale : 0.00m

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 Output 4.00 ~ 20.00mA



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

Function (mV , Volt , mA , type)

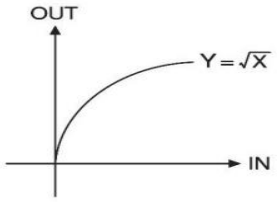
L in

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.



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

C-oF

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

Sensor compensation function

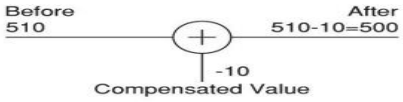
The function is useful for compensating error by long sensor line or changed zero point by aged sensor.

Ex) Before sensor adjust = 510℃

After sensor adjust

= measured value + compensated value

= 510 - 10 = 500℃



Alarm function

Alarm type : High , Low

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

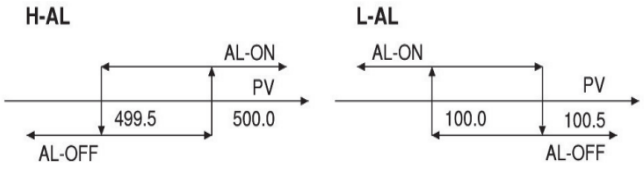
Ex) AL-1 : High alarm value 500.0

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 iuput 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**

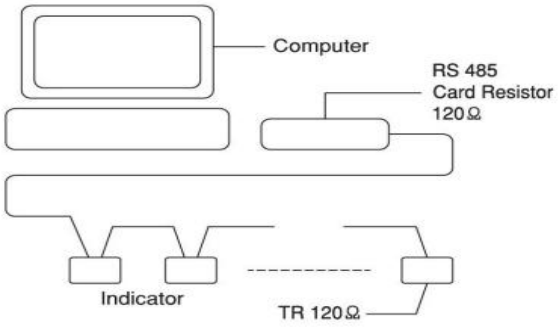
Remember the highest input value, display the highest value in ordinary times, and out put'the highest transmit output.

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 and modbus communication interface.

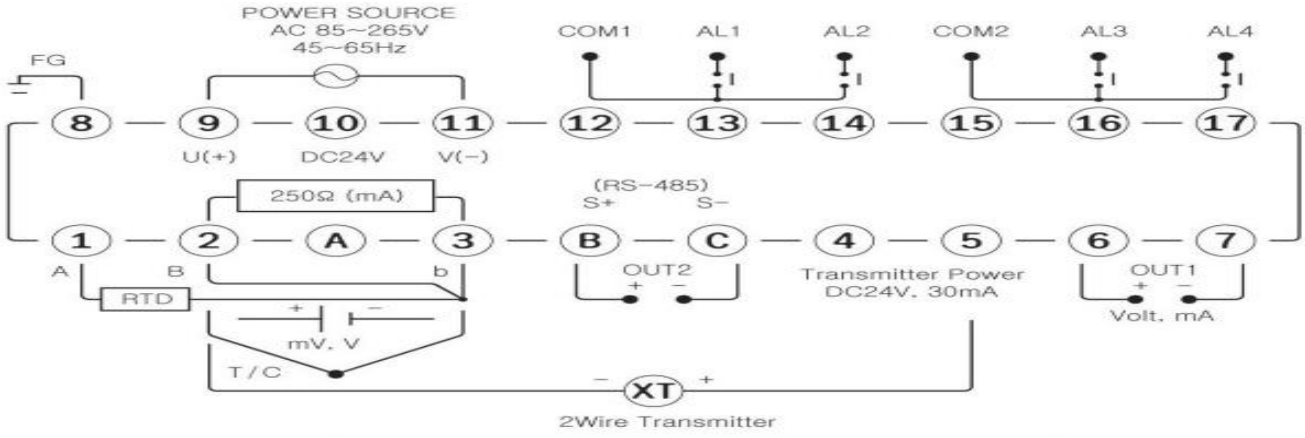


ORDERING CODE

IC 3				W		Description
Type	1					Indicator
	2					Indicator with 2Alarm
	3					Indicator with 4Alarm
Analog output		0				None
		1				DC 4.00~20.00mA
		2				DC 4.00~20.00mA (2 Output)
		3				Etc
Power			0			AC 85~265V (45~65Hz)
			1			DC 24V
			2			Etc
Interface					0	None
					1	RS-485
					2	Modbus RTU(485)

In case of 2AO dual output does not became interface communication.

TERMINAL DIAGRAM



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

DIMENSION & PANEL CUT