펄스 지시 경보계

TG3500 Series - Pulse Indicator With Alarm

Feature

- The response is fast
- 4 point alarm & Dead band set
- Isolation current output (DC 4.00~20.00mA) & Output scaling

SPECIFICATION

mA input	DC 4.00 ~ 20.00 Ma
Pulse input	
-> Low level voltage	DC 0.7V or less
-> High level voltage	DC 1.5V or more
-> Max high voltage	DC 30V
-> Input resistance	150kΩ

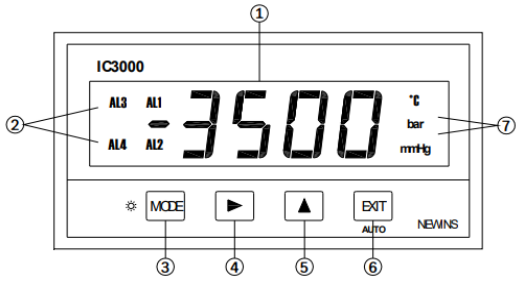
Range Code	Input	Minimum setting range
Range 0	4.00~20.00mA	-
Range 1	0.000~1.000Hz	0.100Hz
Range 2	0.000~9.999Hz	1.00Hz
Range 3	0.00~99.99Hz	10.0Hz
Range 4	0.0~999.9Hz	100Hz
Range 5	0.0000~9.999kHz	1.000Hz
Range 6	0.00~40.00kHz	10.00kHz

* Others is order is made

Measuring and display cycle	Minimum 1S.
More short according to input frequence	
CMRR(Common Mode Rejection RATIO)	140dB or more
NMRR(Normal Mode Rejection Ratio)	60dB or more
Moving average filter by selection	
None, Average 4, Average 8, Average 16	
Built-in sensor power source	DC 12V 30mA ±0.5%
Accuracy	±0.5% Full Scale
Isolation voltage output(Option)	
Voltage	DC 0 ~ 10V
Minimum load resistance	1kΩ or more
Insolation resistance(Input - Output)	100MΩ or more(DC 500V)

Isolation current output(Option)	
Current	DC 4.00~20.00mA
Maximum load resistance	600Ω
Isolation resistance(Input-Output)	100MΩ or more (DC 500V)
Pulse output	
Open collector output	Max 100Hz, DC 50V/within 30mA
Voltage output	Max 100Hz, Lo(DC 0V), Hi(DC 24V)
Relay contact output	Max 5Hz same as alarm
Alarm Output	
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	500g
Mounting	Panel mount
Dimension	99(W) X 51(H) X 112(D)mm

PARTS



① Measured value display

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

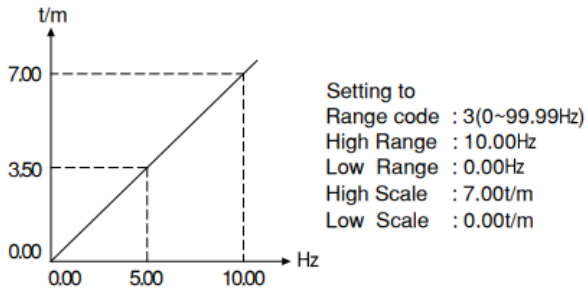
⑦ Unit

MAJOR

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 0.00~10.00Hz and Level 0.00~7.00t/m

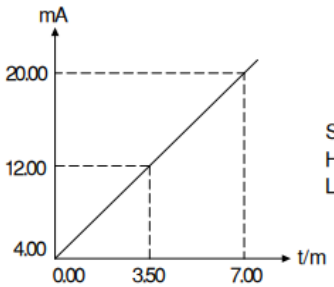


Setting to
Range code : 3(0~99.99Hz)
High Range : 10.00Hz
Low Range : 0.00Hz
High Scale : 7.00t/m
Low Scale : 0.00t/m

Current output scaling function

This function is that 4.00~20.00mA output value is changed by output scale.

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

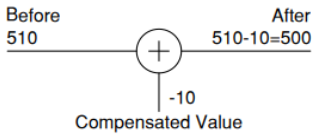


Setting to
High Out Scale : 7.00t/m
Low Out Scale : 0.00t/m

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℃



Pulse output scaling function

If input is mA(Range 0), it sets pulse number per hour when full scale(20mA)

Ex) Setting 3600, it outputs 3600 pulse a hour(1 pulse a second) when 20mA current inputs. If input is pulse (Range : 1~6), it sets a rate of input versus output.
Ex) Setting 100, It output 1 pulse when 100 pulse inputs.

Function (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 inE

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

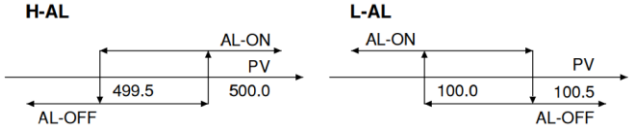
Alarm function

Alarm type : High, Low

according to scale and input range.

Ex) AL-1 : High alarm value 500.0,
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 high alarm(AL-2) is OFF when the present value (PV) is 100.5 or more, and ON when 100.0 or less.



Filter function

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

NONE, 4, 8, 16, 32

It displays sample value on an average the in recent input value 4,8,12,16,32

In case of setting the filter function, the response will be delay.

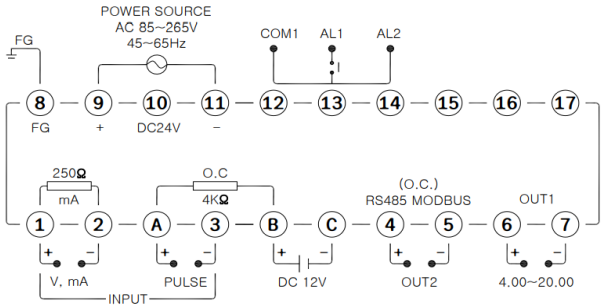
Do not use filter when high speed response is needed.

When output and display value are changed by irregular input, it is possible to get regular input and display value by using filter function.

ORDERING

TG35			-			Description
Input	0					Pulse Input
	1					DC 4.00 ~ 20.00mA Input
Analog Output		0				None
		1				Isolation currunt output DC 4.00 ~ 20mA
		2				Isolation currunt output DC 4.00 ~ 20mA + Relay Contact
		3				Isolation currunt output DC 4.00 ~ 20mA + OC Pulse Output
		4				Isolation currunt output DC 4.00 ~ 20mA + Voltage Pulse Output
		5				Isolation currunt output DC 4.00 ~ 20mA + Relay Contact Pulse Output
		6				Etc(Consult to the factory)
Power				0		AC 85 ~ 265V
				1		DC 24V(Option)
Interface					0	None
					1	RS-485
					2	Etc

TERMINAL DIAGRAM



* mA Input(+ −) Needs 250 Ohm 0.05% 25ppm Resistance (1, 2 Pin)

TERMINAL