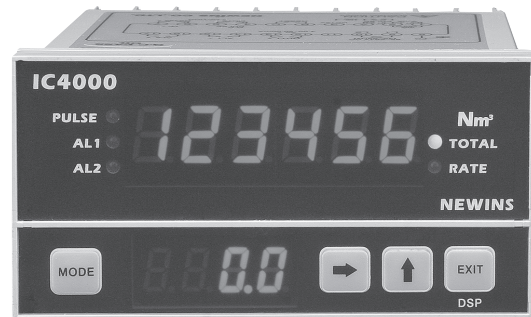


FEATURES

- 10 Digit total integrating & 4 Digit rate display
- Multi-range input (Pulse, Volt, mA)
- High accuracy 16bit A/D converter
- Built-in Batch function
- RS-485 Communication interface
- 2 points alarm & Rate alarm, Batch function and Dead band set.
- Isolation current output (DC 4.00~20.00mA) & Output scaling
- Pulse output function (Open collect) in STD specification
- Sensor power source 12V (DC 24V : option) in STD specification



SPECIFICATIONS

▶ Measuring and display cycle

Rate value : 200ms(Volt, mA input)
 Total count : 1s(Volt, mA input)
 Pulse input : on basis of frequency

▶ **Input resistance** : Volt, mA input - 100kΩ
 Pulse input - 1MΩ

▶ **CMRR(Common Mode Rejection Ratio)** : 140dB or more

▶ **NMRR(Normal Mode Rejection Ratio)** : 60dB or more

▶ **Moving average filter**

▶ **Built-in sensor power source** : DC 12V(24V option)

▶ **Rate accuracy**

Linearity : 0.05% FS
 Repeatability : 0.1% FS
 Temperature drift : 0.02% FS/°C
 Long term drift : 0.1% per 1000Hr

▶ **Totalized function**

Data preservation : Semi-permanent(More than 10 years)
 Max count : 10 Digit(9999999999 count)

▶ **Pulse output(STD)**

Output : Isolation open collect
 Rated voltage : Max DC 50V/50mA
 Max frequency : 5Hz or Less

▶ **Isolation current output : Rate value(Optional)**

Current : DC 4.00~20.00mA
 Maximum load resistance : 600Ω
 Isolation resistance(Input-Output) : 100MΩ or more
 (DC 500V)

▶ **Alarm(Optional)**

Contact output type : Normal open
 (Normal close-Order made)
 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°C, 10~90%
 Storage : -20~70°C, 5~95%

▶ **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 BPS
 ID(address) setting : 0~15

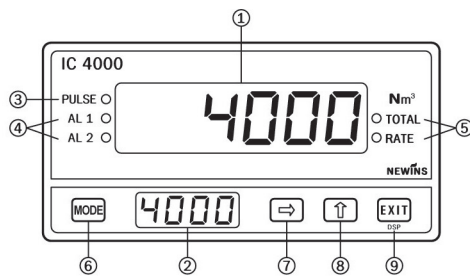
▶ **Etc**

Weight : 500g
 Mounting : Panel mount
 Dimension : 99(W) X 51(H) X 112(D)mm

디지털 적산계

PROGRAMMABLE INTEGRATING TOTALIZER

PARTS NAME



- ① Display the total count
- ② Display the rate value(PV)
- ③ Pulse output lamp
- ④ Alarm condition lamp
- ⑤ Total count or Reset count lamp
- ⑥ **MODE** Key : Storage the set data and change the operation menu
- ⑦ **↵** Key : Enter into the data setting mode and modify the changed location
- ⑧ **↑** Key : Change the data value
- ⑨ **EXIT** Key : Out of mode

▶ Pulse input

The function counts the input pulse and converts it to rate value. It calculates count factor, rate and time unit.

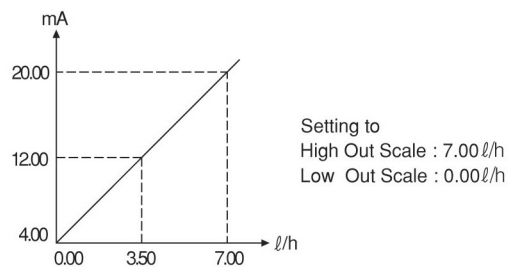
Ex) When max flow is 100 l/h and output pulse is 50Hz,
Count factor = $50 \times 3600 / 100 = 180 \text{ pulse} / \text{l}$.

If setting the rate time unit to "H", it integrates 100 l per hour and indicates the rate value to 100 when the maximum flow.

▶ Output scaling function

This function can change the 4.00~20.00mA output value by output scale.

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



INPUT TYPE

Sensor Type	Range	Scale	Symbol
mA(Volt)	DC 4.00~20.00mA (DC 1~5V)	0000~9999	mA00
Pulse 1	0.1~10Hz	0000~9999	PN01
Pulse 2	0.1~100Hz	0000~9999	PN02
Pulse 3	10Hz~1kHz	0000~9999	PN03

▶ Function(Volt, mA type only)

Lin

Pass the input as it is.

Used for general input type and linearity input.

Lint

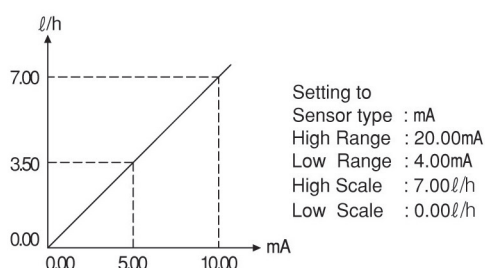
Like level measuring, when it does not display measuring under zero, it always can display zero by using limit function.

MAJOR FUNCTIONS

▶ Rate scaling function(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 0.00~7.00 l/h



▶ Integrator function

• mA, Volt, Input

Integrate the rate value after compensating the rate time unit and total factor.

• Pulse, Input

Integrate after input pulse divided by count factor

▶ Alarm & Batch function

• Rate alarm : 2 point

This consists of two individual setting alarms(High and Low), and it can individually output relay contact output as compared with rate value.

Ex) AL-1 : High alarm value 500.0,

AL-2 : Low alarm value 100.0,

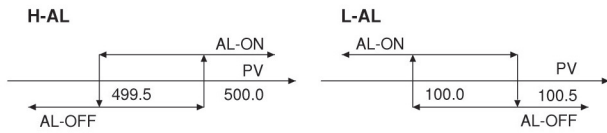
Alarm dead band setting 0.5

디지털 적산계

PROGRAMMABLE INTERGRATING TOTALIZER

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.

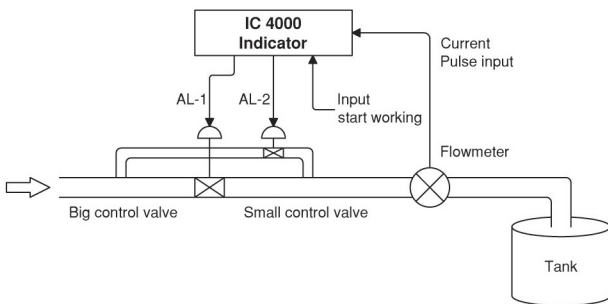


• Batch[Dosage]

It is possible to work consecutively with this function when pulling the counted fixed volume into case.

For precise control, it can decrease the value by two output contacts when the value reaches to the target flow.

After setting the batch and hysteresis value and then inputting the reset contact, the AL-1, AL-2 relay is OFF and reaching to batch value the AL-1 relay is OFF.



• Count alarm + Rate alarm

Alarm 1 : Over alarm for reset count value.

This alarm is operated when the reset count over the setting value.

Alarm 2 : Alarm for rate value.

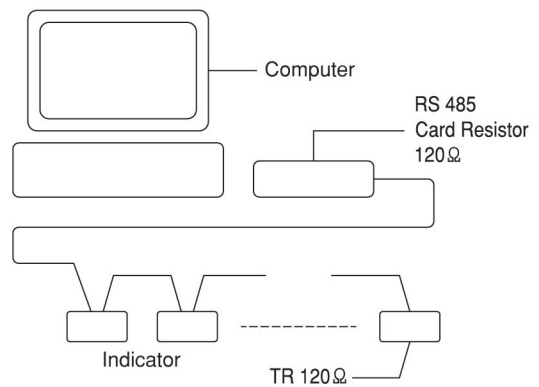
This alarm is operated equally as rate alarm.

• 2 Count alarm

Both Alarm 1 and Alarm 2 are over alarm for reset count value and operated when reset count value is over the setting value. If resetting the reset count, it will become the alarm too.

► Communication interface

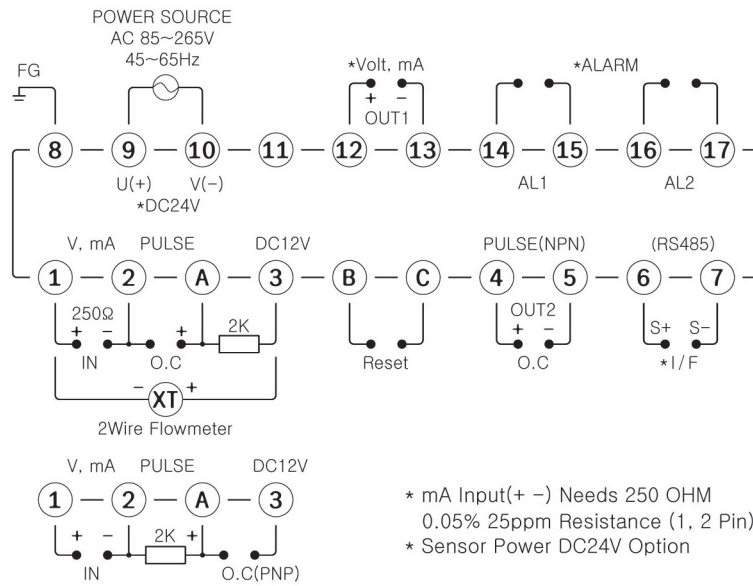
It is possible to communicate with computer and to monitor remote by using RS-485 communication interface.



ORDERING CODE

IC 4	-					Description
Type	1					Counter
	2					Totalizer
Alarm Relay		0				None
		1				2Point Alarm relay
Analog output (only totalize)			0			None
			1			DC 4.00~20.00mA
			2			Etc
Power				0		AC 85~265V (45~65Hz)
				1		DC 24V
				2		Etc
Interface					0	None
					1	RS-485 (BPS 4800)
					2	Etc

TERMINAL DIAGRAM



A

B

C

D

E

F

G

H

I

J

DIMENSION & PANEL CUT

