

펄스 변환기

ISOLATED PULSE CONVERTER

FEATURES

- **Multi input** (Pulse voltage, Contact, Open collector, DC 4.00~20.00mA)
- **High response**
- **Peak hold function** (Highest & Lowest)
- **Pulse output** (O.C, Contact, Pulse voltage)
- **1 point alarm & Dead band set**
- **Isolation current output** (DC 4.00~20.00mA)
- **Sensor power source DC 12V**
in STD specification (* DC 24V Option)



SPECIFICATIONS

▷ **mA input** : DC 4.00~20.00mA

▷ **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 : 150k Ω

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 made

▷ **Measuring and display cycle** : Minimum 1s.
more short according to input frequency

▷ **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 $\pm$ 0.5%

▷ **Accuracy** : $\pm$ 0.2% FS

▷ **Isolation current output(Option)**

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

▷ **Isolation voltage output(Option)**

Voltage : DC 0~10V
 Minimum load resistance : 1k Ω or more
 Insolation resistance(Input-Output) : 100M Ω 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 $^{\circ}$ C, 10~90%
 Storage : -20~70 $^{\circ}$ C, 5~95%

▷ **Power supply**

Voltage : AC 110/220V(50~60Hz) by S/W
 DC 24V(Option)
 Power consumption : Max 4VA
 Isolation resistance : 100M Ω , DC 500V
 (FG-Input, FG-Power,
 Power-Input, Input-Output)

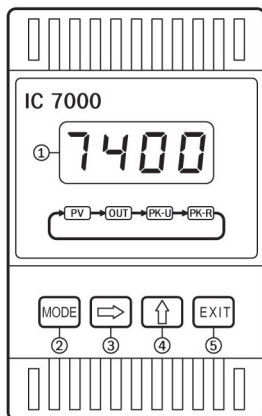
▷ **Etc**

Weight : 500g
 Mounting : Din rail & wall mounted
 Dimension : 50(W) X 80(H) X 102(D)mm

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PARTS NAME



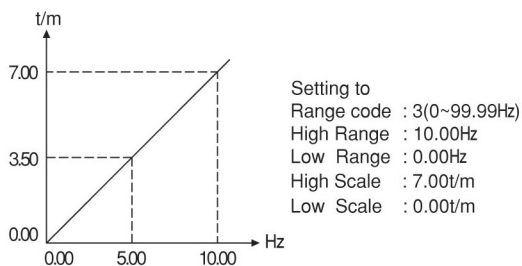
- ① Measured value display
- ② **MODE** Key :
Storage the set data and change the operation menu
- ③ **→** Key :
Enter into the data setting mode and modify the changed location
- ④ **↑** Key :
Change the data value
- ⑤ **EXIT** Key : Out of mode

MAJOR FUNCTIONS

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

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

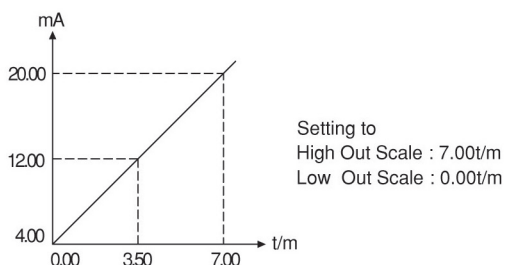
Ex) In case of input range 0.00~10.00Hz and Level 0.00~7.00t/m



▷ 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



▷ 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.

▷ Sensor compensation function

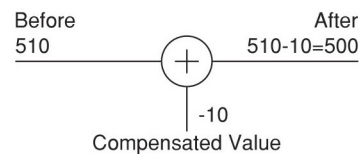
The function is useful for compensating error by long sensor line or changed zero point by aged sensor.

Ex) Before sensor adjust = 510°C

After sensor adjust

= measured value + compensated value

= 510 - 10 = 500°C



▷ Function(Volt, mA type only)

L i n

Pass the input as it is.

Used for general input type and linearity input.

r o o t

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

L i m i t

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

▷ Alarm function

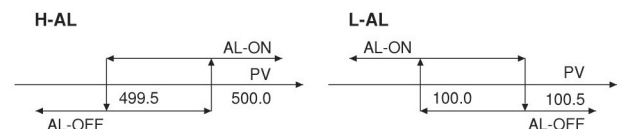
Alarm type : High, Low

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.

n o n E

It displays the change of input without filter.

R u 4, 8, 16

It displays in recent input No 4,8,16 sample average.

Setting filter function delays response.

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.

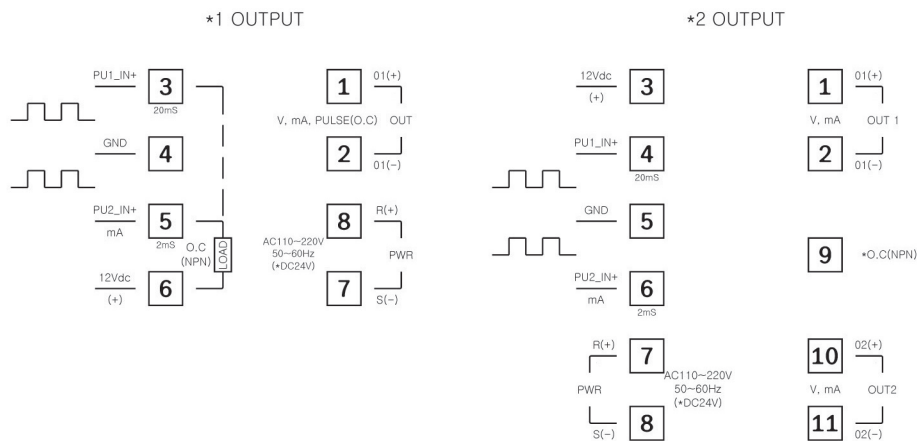
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ORDERING CODE

IC 74					Description
Input	0 1				Pulse input DC 4.00~20.00mA input
Power	0 1 2 3 4 5				DC 4.00~20.00mA DC 4.00~20.00mA + Relay contact DC 4.00~20.00mA + OC pulse output DC 4.00~20.00mA + Voltage pulse output DC 4.00~20.00mA + Relay contact pulse output Etc
Communication		0 1			AC 110/220V by S/W DC 24V (Option)

TERMINAL DIAGRAM



DIMENSION & PANEL CUT

