

Instruction Manual

Digital Large Display Meter Model 4012 (Analog input)

I-01683

Please take care that this instruction manual is certainly delivered to the person in charge of operating it. For safety and proper use of this product, please observe the following caution and also read the instruction manuals to follow before the initial operation.

⚠ WARNING
<p>To avoid an electrical shock, preserve followings.</p> <ul style="list-style-type: none"> ● Turn the power off when wiring. ● Do not touch terminals when turning the power on. ● Locate away from the wet place.

⚠ CAUTION
<p>Do not install the product in the following conditions.</p> <ul style="list-style-type: none"> ● Where it is exposed to direct sunlight. ● Where ambient temperature or humidity is high. ● Where it is exposed to excessive noise or static electricity. ● Where there is constant vibration or shock.

● Check at Delivery

• When the product is delivered to you, please check that its specifications conform to your requirement and that there is no damage in transit. This product is carefully inspected before delivery from factory under our strict quality control program, but if you find any defect or inconvenience, please inform us of the model name, serial number etc. of the product.

● Cautions for Use

- No power on-off switch is provided on the model 4012 so it immediately starts to work when connected to the power source. The rated data of this instrument is, however, defined with the pre-heating for 15 minutes or more.
- When the product is installed in the cabinet, perform the appropriate heat radiation to keep less than 50°C in it.

■ Standard Specifications

● **Model Name** **4012** -□-□-□-□-□-□
1 2 3 4 5 6

【1】 Input signal

Model	Measuring Range	Input Resistance	Accuracy ※	Overload
4012-03	±1.9999 V	1MΩ	±(0.1% of rdg +2digit)	DC±250 V
4012-04	±19.999 V	1MΩ	±(0.1% of rdg +2digit)	DC±250 V
4012-05	±199.99 V	10MΩ	±(0.1% of rdg +2digit)	DC±500 V
4012-09	DC1~ 5 V	1MΩ	±(0.1% of rdg +5digit)	DC±250 V
4012-V1	DC0~ 1 V	1MΩ	±(0.1% of rdg +2digit)	DC±250 V
4012-V2	DC0~ 5 V	1MΩ	±(0.1% of rdg +2digit)	DC±250 V
4012-V3	DC0~10 V	1MΩ	±(0.1% of rdg +2digit)	DC±250 V
4012-19	DC4~20mA	13 Ω	±(0.1% of rdg +5digit)	DC±150mA
4012-A1	DC0~ 1mA	200 Ω	±(0.1% of rdg +2digit)	DC± 50mA

※ Accuracy: Defined at 23°C±5°C, 45 to 75%RH
 Temperature coefficient: ±200ppm/°C within the 0 to 50°C temperature range.

【2】Power Supply

No.	Power
3	AC 100~120V
5	AC 200~240V
9	DC 24V

【3】Sensor power supply

No.	Power voltage	Output current
(Blank)	No sensor power supply	
3	12V±5%	150mA
5	24V±5%	100mA

【4】Mounting

No.	Type
51	Wall-mount
52	Hanging-mount
53	Sticking-mount

【5】Display

No.	Color
(Blank)	Red LED
G	Green LED

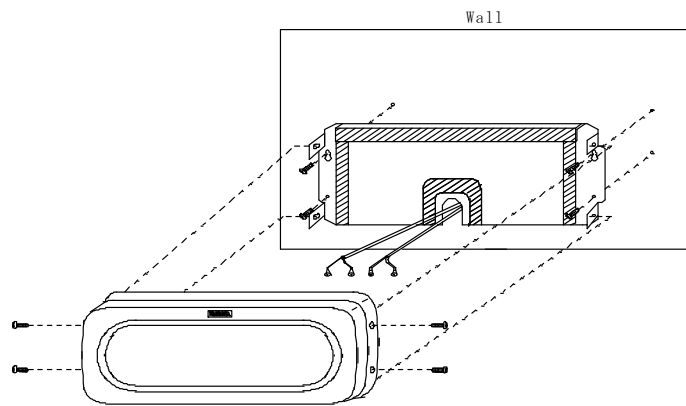
【6】Option

No.	Function
(Blank)	N/A
A01	Display sampling 1 second
A02	Fixed 10 ⁰ digit to 0
A03	Display sampling 1 second, Fixed 10 ⁰ digit to 0

■ Mounting

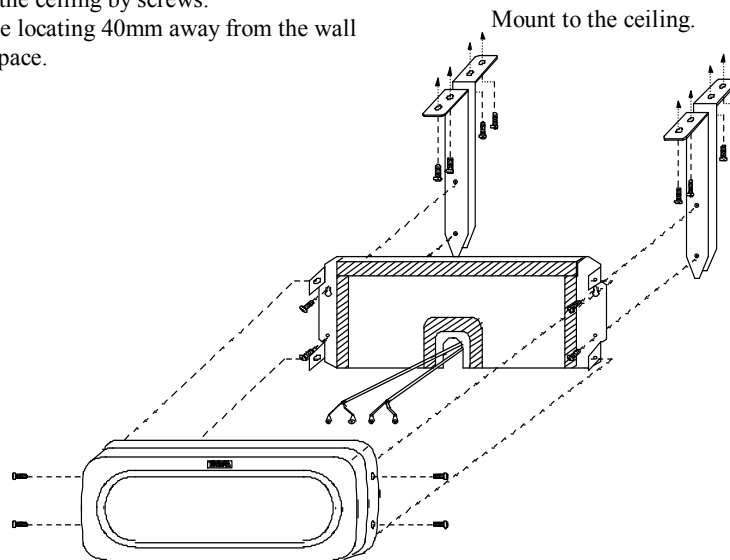
● Wall-mount (model code-51)

Cut the case bottom or side to pull out lead wires.



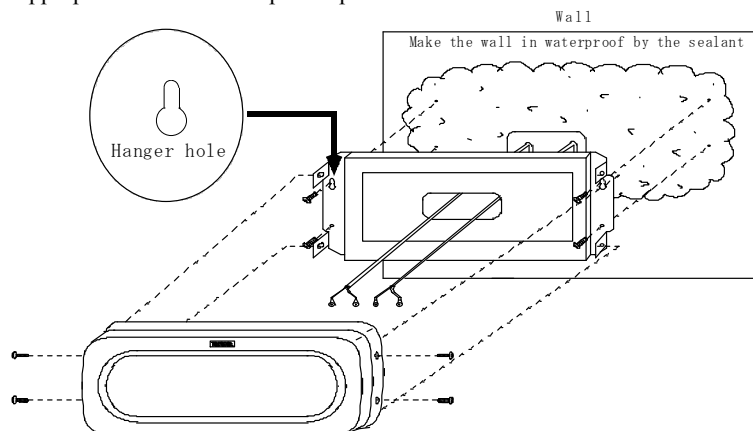
● Hanging-mount (model code-52)

Fix lifting brackets to the ceiling by screws.
Fixing points should be locating 40mm away from the wall to keep maintenance space.



● Sticking-mount (model code-53)

Use coaching bond or appropriate sealant to keep IP65 protection.



⚠ CAUTION

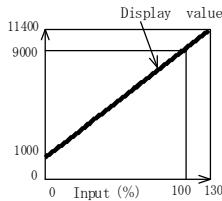
• Hanger hole of the mounting panel should be upright position as shown in the drawing.

Scaling

Full scale value and Offset value are programmable within the range from -19999 to +19999. Refer to “Parameter Setting.”

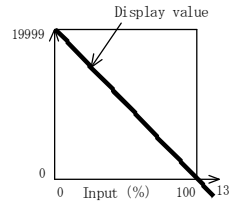
E.g.1 From elevation (over 0%) to suppression (below 100%)

Full scale value: 9000
Offset value: 1000



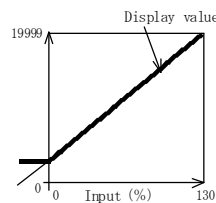
E.g.2 From 100% to 0%

Full scale value: 0
Offset value: 19999



Offset fixing

Display can be fixed to the offset value when the input value is lower than the offset value. Refer to “Parameter Setting.”



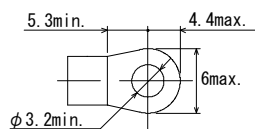
Terminal Arrangement

Terminal	INHi	INLo	COM	HOLD	DP1	DP2	DP3	Dp4	P2(+)	P1(-)
	1	2	3	4	5	6	7	8	9	10
Function	+	-	Common	Hold	10 ¹ dig	10 ² dig	10 ³ dig	10 ⁴ dig	Power	
	Input				Decimal point					

(Option)

Terminal	+V	0V	NC							
	11	12	13	14	15	16	17	18	19	20
Function	Sensor power supply		-	-	-	-	-	-	-	-

Terminal screws: M3
Fastening torque: 0.46~0.62N·m
Crimp terminal: As shown on the right.



Input terminals (INHi, INLo)

Pay attention to the polarity when wiring. Connect input of higher electric potential to Hi. Input and power line shall lay separately. Otherwise, display may be unstable.

Hold (HOLD)

Display can be held by connecting the Hold terminal and the Common terminal.

Active “L” In ≤ -1mA, “L”=0~0.8V, “H”=3.5~5V

Hold terminal is not isolated to the input. Use a photo-coupler or switch to insulate. It is essential when using the input floating. When using plural numbers of the product, the hold terminal should be insulated at each instruments.

Decimal point (DP1~DP4)

Decimal point is programmable. Connect and short-circuit the desired decimal point terminal and the common terminal.

Active “L”, In ≤ -1mA, “L”=0~0.8V, “H”=3.5~5V

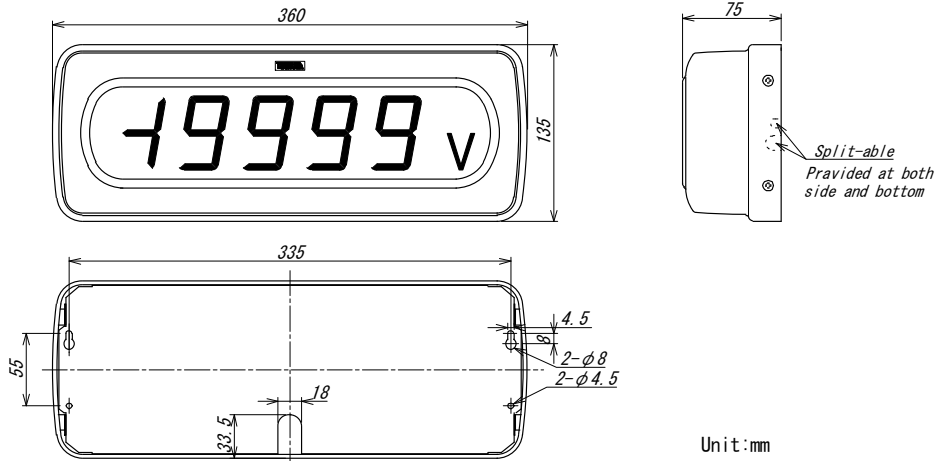
Those terminals are not isolated to the input. Use a photo-coupler or switch to insulate. It is essential when using the input floating.

Common (COM)

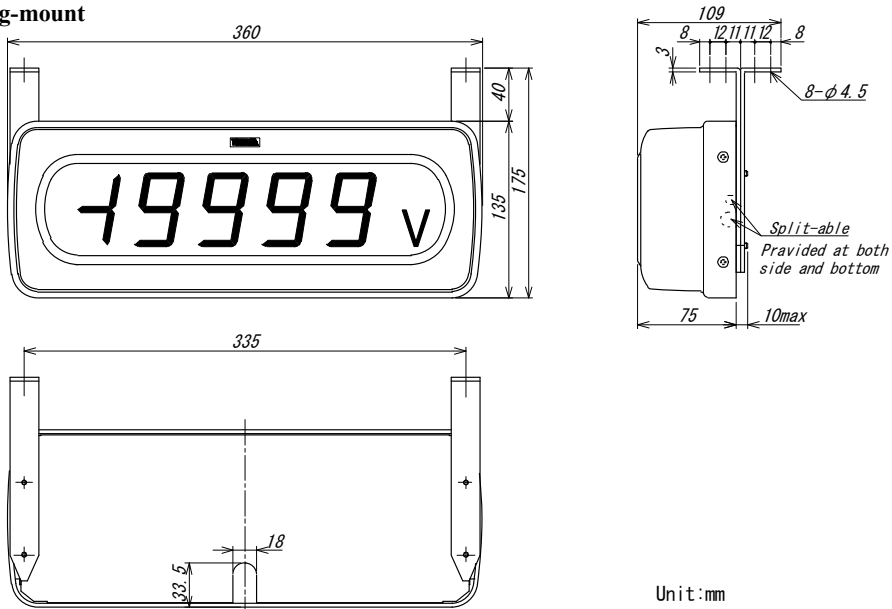
For Hold and Decimal point terminals.

■ Dimensions

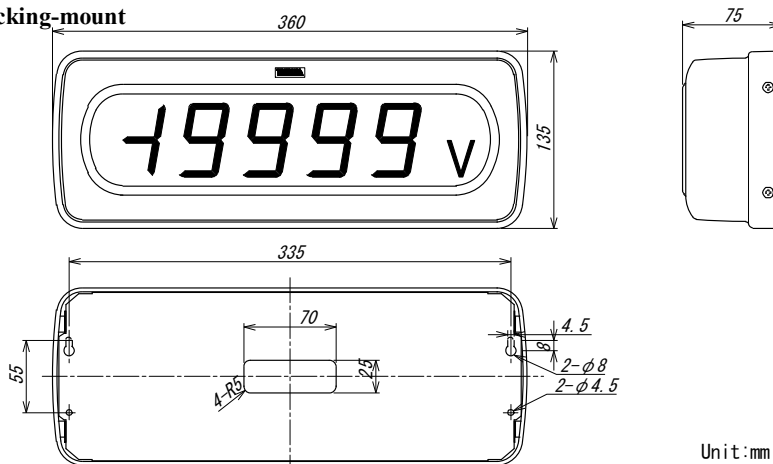
● Wall-mount



● Hanging-mount



● Sticking-mount



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