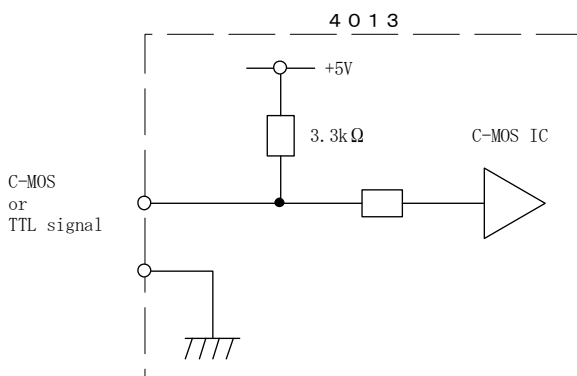


Insulation Resistance	: Input terminals – Case Power terminals Power terminals	DC500V 100MΩ or more – Case DC500V 100MΩ or more – Input terminals DC500V 100MΩ or more
Withstanding Voltage	: Input terminals – Case Power terminals Power terminals	AC1500V for 1 minute – Case AC1500V for 1 minute – Input terminals AC1500V for 1 minute
Power Supply	: AC 100~120V 50/60 Hz AC 200~240V 50/60 Hz DC 24V	(DC power supply AC 500V for 1 minute)
Allowable supply voltage	: AC 85~132V 50/60 Hz AC 170~250V 50/60 Hz DC 20~30V	
Power Consumption	: Approx. 10VA at AC 100V. Approx. 13VA at AC 200V. Approx. 200mA at DC 24V.	
Operating Temperature	: 0~50°C	
Storage Temperature	: -20~70°C	
Weight	: Approx. 2.5kg	
Digit	: Specified character	
Accessory	: Connector by DDK (57-30360)	
Protection	: IP44 (Wall-mount and Hanging-mount) IP65 (Sticking-mount with water-proof works)	

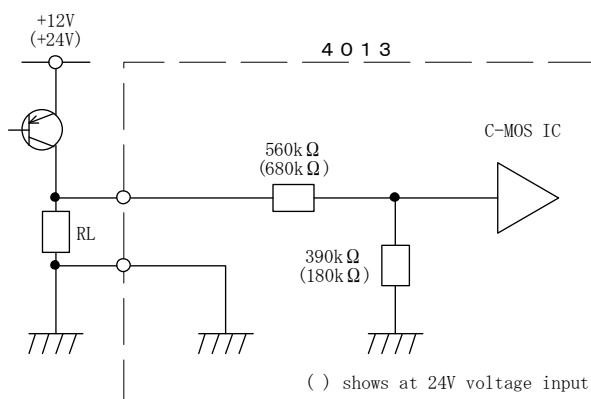
■ Input level

- TTL level input (Fin=1.0)
 - “H”= 3.5~5V
 - “L”= 0~1.5V



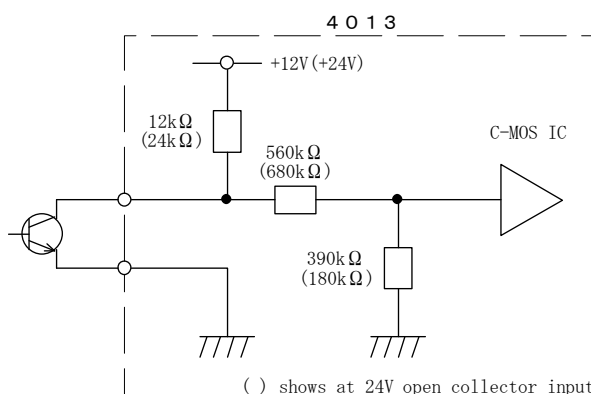
- Voltage input

12V voltage	24V voltage
“H”= 8.4~12V	“H”= 16.8~24V
“L”= 0~1.9V	“L”= 0~3.8V



- Open collector (OC) input

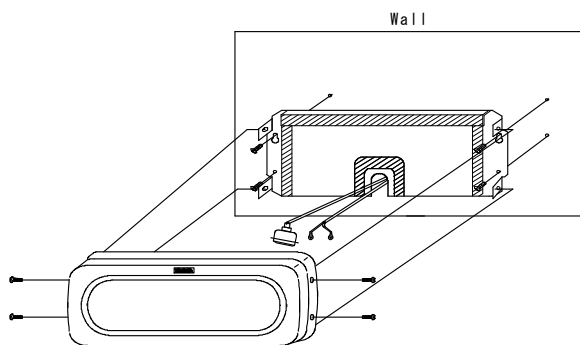
12V OC	24V OC
“H”= 8.5~12V	“H”= 16.8~24V
“L”= 0~1.9V	“L”= 0~3.8V



■ Mounting

● Wall-mount (model code-51)

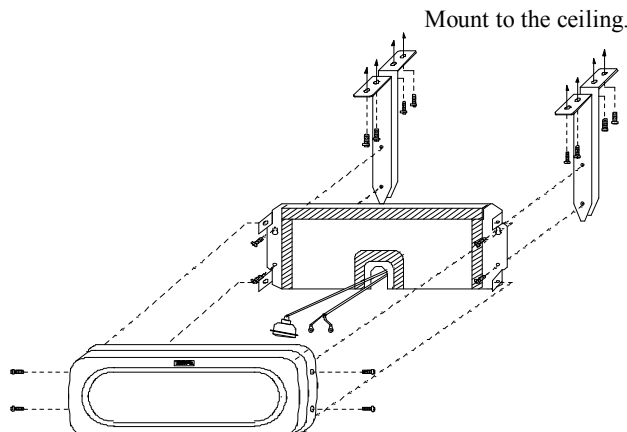
Cut the case bottom or side to pull out lead wires.



● Hanging-mount (model code-52)

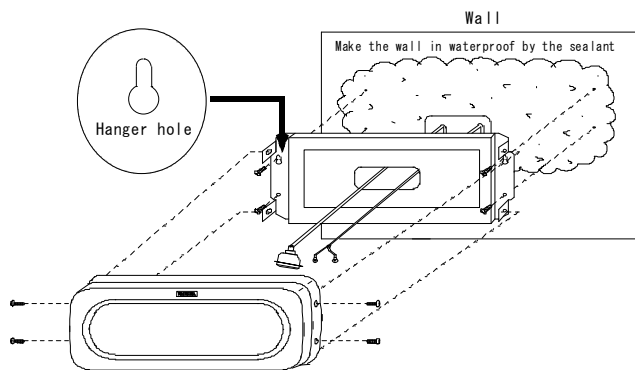
Fix lifting brackets to the ceiling by screws.

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.

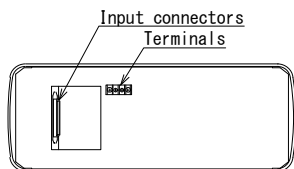


⚠ CAUTION

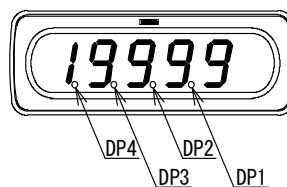
• Hanger hole of the mounting panel should be upright position as shown in the drawing.

■ Each function

● Location of terminals and input connectors



● Decimal point position

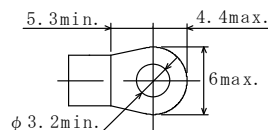


■ Terminal Arrangement and Explanation

⚠ CAUTION	
<ul style="list-style-type: none"> ● Do not use the meter with wrong wiring as it may cause breakage of meter or equipment connected. ● To avoid an electric shock; <ul style="list-style-type: none"> - Turn off the power when the wiring work is done. - Do not do the wiring work in the humid environment or with the wet hands. - Do not touch the power source terminals while the meter is powered. 	

● Terminal Arrangement

No.	P2(+)	P1(-)
	1	2
Function	Supply voltage	



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

● Power Supply [P1(-), P2(+)]

The power source voltage to be supplied to the instrument is specified on the terminal plate at delivery from factory.

- AC power source (3)..... Use the instrument within the range AC85~132V.
 - AC power source (5)..... Use the instrument within the range AC170~250V.
 - DC power source (9)..... Use the instrument within the range DC20~30V.
- Connect +24 of DC power source to P2(+), and 0V side to P1(-).

⚠ CAUTION	
<ul style="list-style-type: none"> ● Do not use the product with the voltage out of the rated range as it may cause breakage of the products. 	

■ Arrangement of the input connector

Function			Function		
× 10 ⁰	1	1	19	1	× 10 ¹
	2	2	20	2	
	4	3	21	4	
	8	4	22	8	
× 10 ²	1	5	23	1	× 10 ³
	2	6	24	2	
	4	7	25	4	
	8	8	26	8	
DATA COM		9	27	DATA COM	
× 10 ⁴	1	10	28	NC	
	2	11	29		
	4	12	30		
	8	13	31	DP1	
SYNC		14	32	DP2	
LATCH		15	33	DP3	
POL		16	34	DP4	
LT		17	35	DATA COM	
P/N		18	36	DATA COM	

■ **Function Table**

● **Data function**

Negative logic (P/N="L")				Positive logic (P/N="H")				LT	LATCH	Numbers
8	4	2	1	8	4	2	1			
"H"	"H"	"H"	"H"	"L"	"L"	"L"	"L"	"H"	"H"	0
"H"	"H"	"H"	"L"	"L"	"L"	"L"	"H"	"H"	"H"	1
"H"	"H"	"L"	"H"	"L"	"L"	"H"	"L"	"H"	"H"	2
"H"	"H"	"L"	"L"	"L"	"L"	"H"	"H"	"H"	"H"	3
"H"	"L"	"H"	"H"	"L"	"H"	"L"	"L"	"H"	"H"	4
"H"	"L"	"H"	"L"	"L"	"H"	"L"	"H"	"H"	"H"	5
"H"	"L"	"L"	"H"	"L"	"H"	"H"	"L"	"H"	"H"	6
"H"	"L"	"L"	"L"	"L"	"H"	"H"	"H"	"H"	"H"	7
"L"	"H"	"H"	"H"	"H"	"L"	"L"	"L"	"H"	"H"	8
"L"	"H"	"H"	"L"	"H"	"L"	"L"	"H"	"H"	"H"	9
"L"	"H"	"L"	"H"	"H"	"L"	"H"	"L"	"H"	"H"	A
"L"	"H"	"L"	"L"	"H"	"L"	"H"	"H"	"H"	"H"	B
"L"	"L"	"H"	"H"	"H"	"H"	"L"	"L"	"H"	"H"	C
"L"	"L"	"H"	"L"	"H"	"H"	"L"	"H"	"H"	"H"	D
"L"	"L"	"L"	"H"	"H"	"H"	"H"	"L"	"H"	"H"	E
"L"	"L"	"L"	"L"	"H"	"H"	"H"	"H"	"H"	"H"	F
※	※	※	※	※	※	※	※	"L"	"H"	Lighting
※	※	※	※	※	※	※	※	"H"	"L"	Hold

※: means H or L level

● **Polarity function**

Negative logic (P/N="L")	Positive logic (P/N="H")	LT	LATCH	Minus sign
"H"	"L"	"H"	"H"	Lighting
"L"	"H"	"H"	"H"	Shut-off
※	※	"H"	"L"	Hold
※	※	"L"	※	Lighting

※: means H or L level

■ **Explanation of function**

● **Data input (10⁰~10⁴)**

Input numeric data from 10⁰ to 10⁴ by parallel BCD code.

Pin 1 "1"	} × 10 ⁰ digit	Pin 19 "1"	} × 10 ¹ digit
Pin 2 "2"		Pin 20 "2"	
Pin 3 "4"		Pin 21 "4"	
Pin 4 "8"		Pin 22 "8"	

Pin 5 "1"	} × 10 ² digit	Pin 23 "1"	} × 10 ³ digit
Pin 6 "2"		Pin 24 "2"	
Pin 7 "4"		Pin 25 "4"	
Pin 8 "8"		Pin 26 "8"	

Pin 10 "1"	} × 10 ⁴ digit
Pin 11 "2"	
Pin 12 "4"	
Pin 13 "8"	

Note: Set unassigned pins to L at positive logic or to H at negative.

● **Polarity input (POL)**

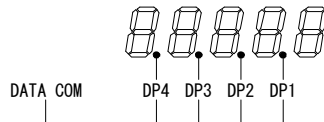
Minus sign (-) is lit. Set No. 16 pin to L at positive logic or to H at negative.

● **Logic switching (P/N)**

Input logic of numeric data (from × 10⁰ to × 10⁴) and polarity (POL) can switch positive or negative. Set No.18 pin to H at positive logic or to L at negative.

● **Decimal point (DP1~DP4)**

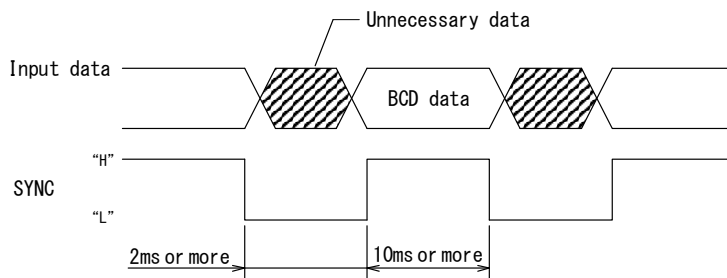
Decimal point can be set to desired position. Set No.31, 32, 33 and 34 pins for 10¹ to 10⁴ digits to L.



Note: Fix unassigned decimal point to H at voltage input.

● **Synchronization (SYNC)**

This enables BCD datum without hold to display H level only. BCD datum at L level does not display, and starts to display when switching from L to H. BCD datum at H level shall be hold.



Note: Fix to H at voltage input without synchronization (SYNC).

● **Latch (LATCH)**

This enables data, POL, and DP1~DP4 to hold. Set No.15 pin to L.

Note: Fix to H at voltage input without Latch (LATCH).

● **Lamp test (LT)**

All segment of 10⁰ to 10⁴ digit, minus sign (-), and decimal points are lit. Bridge pin 17 and pin 35 or 36 with a non-voltage contact irrespective of input level.

● **Data common (DATA COM)**

Pin 9, 27, 35, 36 are common for data, decimal point, logic switching, latch, lamp test, polarity, and synchronization. Those pins are internally connected.

● **NC**

Do not use non-occupied NC pin for junction purpose.

■ **Option**

● **Function table when reversing logic of polarity against standard.**

Negative logic (P/N="L")	Positive logic (P/N="H")	LT	LATCH	Minus sign
"L"	"H"	"H"	"H"	Lighting
"H"	"L"	"H"	"H"	Shut-off
※	※	"H"	"L"	Hold
※	※	"L"	※	Lighting

※: means H or L level

● **Operation when reversing logic of latch (LATCH) against standard.**

Data, polarity (POL), and decimal point (DP1~DP4) when setting pin 15 to H level.

■ **Maintenance**

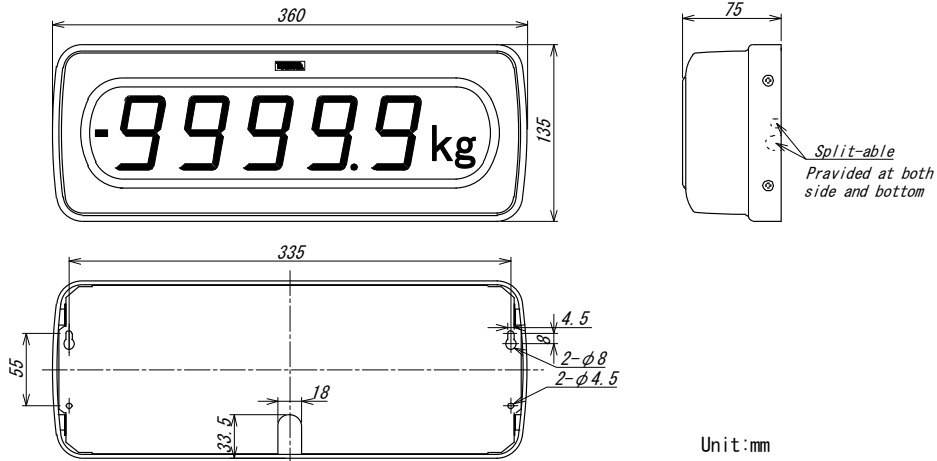
Store within the rated storage temperature (-20~+70°C).

When the front panel or the case becomes dirty, wipe it with soft cloth.

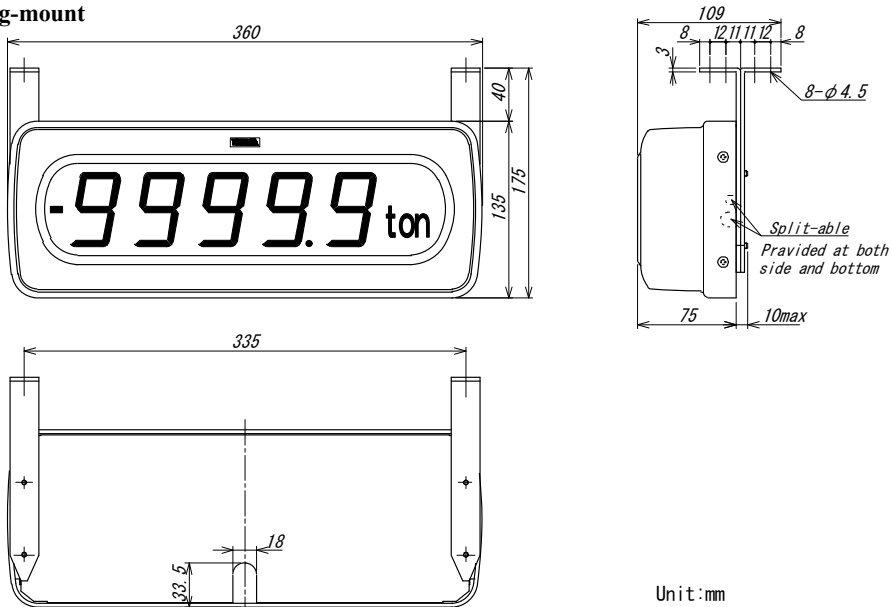
For heavy dirt, wipe it lightly with the soft cloth wetted with the neutral cleaner thinned by water, and finish the cleaning with dry cloth. Do not use organic solvent like benzene or paint thinner as they may deform or discolor the case.

■ Dimensions

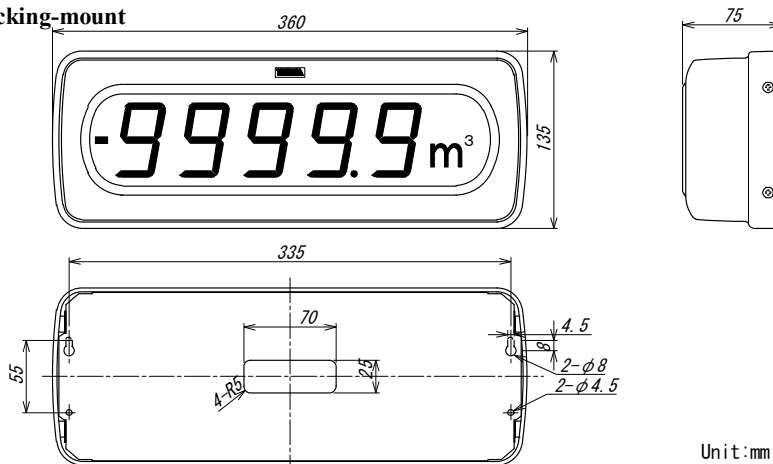
● Wall-mount



● Hanging-mount



● Sticking-mount



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