

KD Digital Display Unit

R shaped smart design 7-segment display unit includes Dual-Color Type.

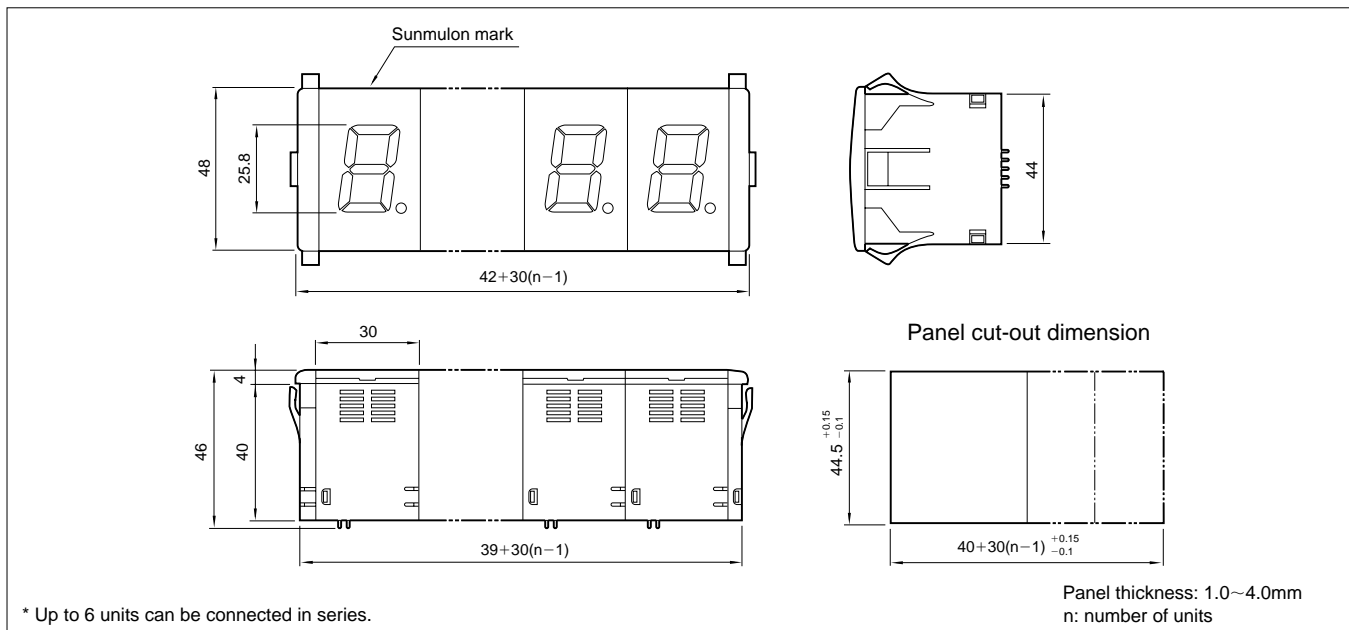
Easy to recognize with 25.8mm character height.

FEATURES

- Compact size 7-segment display unit.
- Depth behind panel : 40mm
- Character height : 25.8mm
- Numerical unit can be easily displayed by BCD codes.
- R shaped smart design with smoked cover gives good appearance for the panel.
- Red, Green, Dual-Color(R/G) LED available.
- One-touch easy panel mounting with side plates.
- Terminal connection : IC pitch(2.54mm pitch) terminal for Connector.
- Display : 7-segment numerical unit, Character Unit.



DIMENSIONS / PANEL CUT-OUT



* Up to 6 units can be connected in series.

* Panel Cut Dimension should be after panel paintings.

SPECIFICATIONS

Numerical Unit

Electrical Rating

Item	Type	KD-B□□1	KD-B□□2	KD-B□□3
Supply voltage		DC5V±5%	DC12V±10%	DC24V±10%
Current consumption		65mA MAX (1 unit)		
High level input voltage		3.5V~5V		
Low level input voltage		0V~1.5V		

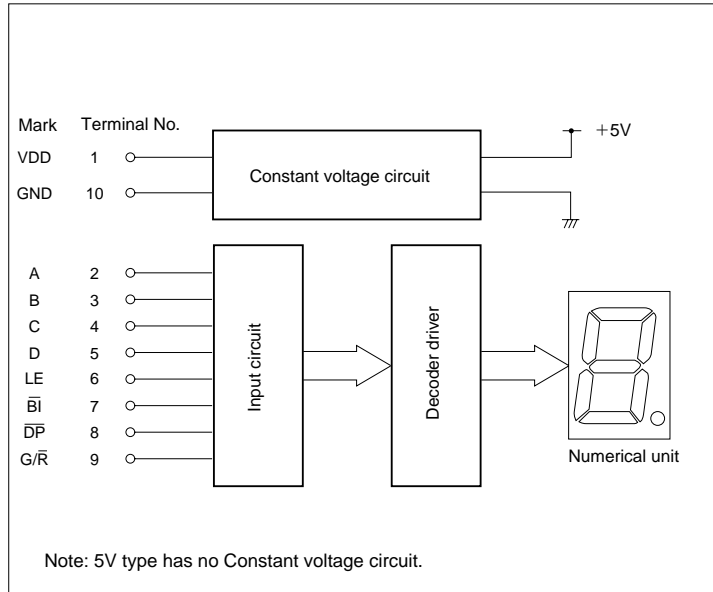
General Specification

Display pattern	7-segment LED : 0~9, Decimal point
Luminous element	Red, Green, Dual-Color(Red/Green)
Input logic(Data only)	Positive, Negative
Ambient Temperature	-15~50°C
Ambient Humidity	80%RH

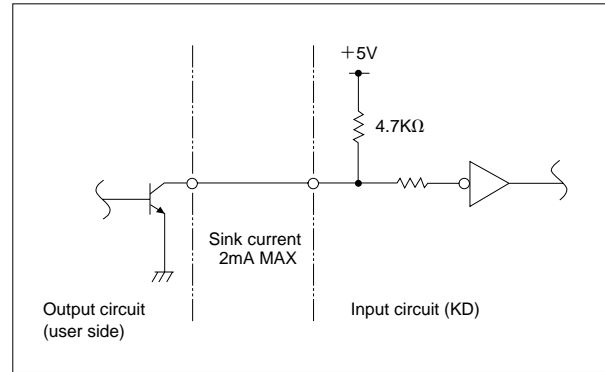
Tolerance : ±0.4mm

SPECIFICATIONS

● Block Diagram

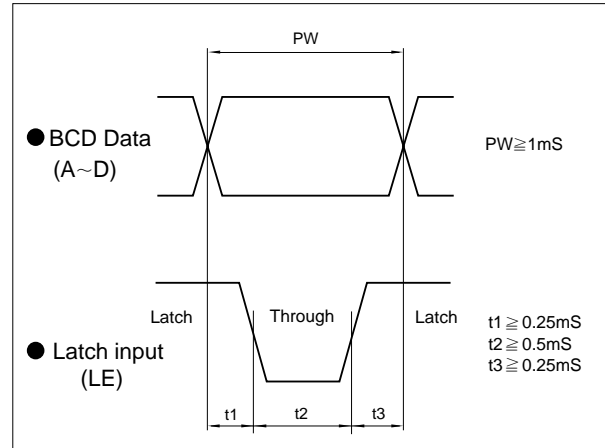


● Input circuit and connection



- Note 1) Since internal circuit is operated with +5V, user side output should be Open Collector Circuit, or less than +5V impression circuit.
- 2) While power is not supplied in the unit, even low voltage not to be impressed on the input circuit.

● Input Timing



● BCD Signals Truth Table

Input								Output
G/R	DP	BI	LE	D	C	B	A	BCD
X	H	H	L	L(H)	L(H)	L(H)	L(H)	0
X	H	H	L	L(H)	L(H)	L(H)	H(L)	1
X	H	H	L	L(H)	L(H)	H(L)	L(H)	2
X	H	H	L	L(H)	L(H)	H(L)	H(L)	3
X	H	H	L	L(H)	H(L)	L(H)	L(H)	4
X	H	H	L	L(H)	H(L)	L(H)	H(L)	5
X	H	H	L	L(H)	H(L)	H(L)	L(H)	6
X	H	H	L	L(H)	H(L)	H(L)	H(L)	7
X	H	H	L	H(L)	L(H)	L(H)	L(H)	8
X	H	H	L	H(L)	L(H)	H(L)	L(H)	9
X	H	H	L	H(L)	L(H)	H(L)	H(L)	Blank
X	H	H	L	H(L)	H(L)	H(L)	H(L)	Blank
X	H	H	L	H(L)	H(L)	L(H)	L(H)	Blank
X	H	H	L	H(L)	H(L)	L(H)	H(L)	Blank
X	H	H	L	H(L)	H(L)	H(L)	H(L)	Blank
X	L	X	X	X	X	X	X	•
X	X	L	X	X	X	X	X	Blank
X	X	X	H	X	X	X	X	Latch Data (A-D) before 'H'
H	X	X	X	X	X	X	X	Green
L	X	X	X	X	X	X	X	Red

Note: 1) Either H, L is acceptable for X
 2) () = Negative Logic

SPECIFICATIONS

Character Unit

● LED Rating

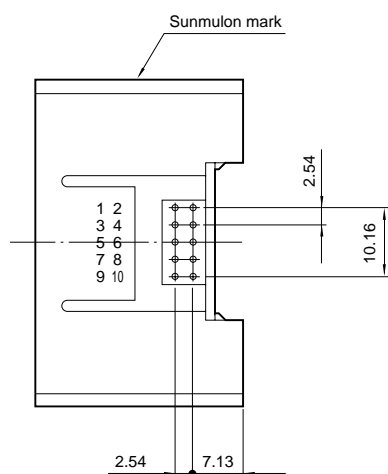
Rated voltage	Rated current (mA)		
	Full-Face	Split-Face	Dual-Color
5V	40	20×2	40×2
12V	20	10×2	10×2
24V	10	10×2	10×2

● Connecting Circuit

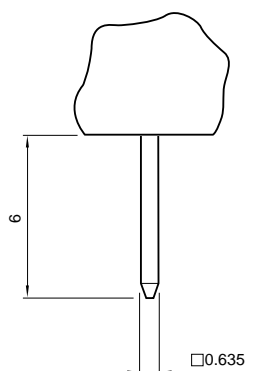
Rated voltage	Full-Face	Split-Face	Dual-Color
5V	Terminal No. 1 ○ 	Terminal No. 1 ○ 6 (Upper) 8 (Lower) 	Terminal No. 1 ○ 6 (Green) 8 (Red)
12V	Terminal No. 1 ○ 6 ○ 	Terminal No. 1 ○ 6 (Upper) 8 (Lower) 	Terminal No. 1 ○ 6 (Green) 8 (Red)
24V	Terminal No. 1 ○ 6 ○ 	Terminal No. 1 ○ 6 (Upper) 8 (Lower) 	Terminal No. 1 ○ 6 (Green) 8 (Red)

TERMINALS

● Terminals Arrangement



● Terminals shape



Connector Set (Type No. BD-0556)

OMRON XG4M-1030 (Socket)
 XG4T-1004 (Strain Relief)
 XG5Z-1002 (Lock Lever)

* Connectors are not appended, please procure above connector set or prepare equivalent.

Tolerance : ±0.4mm

TERMINALS FUNCTION

● Terminals Function Table

Terminal No.	Mark	Description	Numerical Unit	Character Unit		
			Functions	Full-Face	Split-Face	Dual-Color
1	VDD	⊕ Power supply	⊕ Power input	Anode(+)	Anode(+)	Anode(+)
2	A(2 ^o)	Data	Indicate figures and symbols according to data signal input. See truth table.	—	—	—
3	B(2 ¹)					
4	C(2 ²)					
5	D(2 ³)					
6	LE	Latch	'H' makes latching data. 'L' makes data 'through'.	Cathode(-)	Cathode(-)Upper	Cathode(-)Green
7	$\bar{B}I$	Blanking	'L' makes display 'OFF' except Decimal Point.	—	—	—
8	$\bar{D}P$	Decimal point	'L' makes Decimal Point 'ON'.	—	Cathode(-) Lower	Cathode(-)Red
9	G/R	Color Select	'H' for Green, 'L' for Red. (Not use for Mono-Color type)	—	—	—
10	GND	Ground	⊖ Power input. Electrical potential norm of all signals.	—	—	—

ORDERING CODE

BCD Numerical Unit



Character Unit



SIDE PLATES

* A pair of Side Plate (Right/Left) is necessary for mounting on panel.



KD-0671-K

* A pair of Side Plate (Right/Left) be supplied by ordering above part no. Side plates to be ordered separately.

KD-B

* Side plates to be ordered separately.

● DISPLAY

B	Numerical unit
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● INPUT LOGIC

1	Positive
2	Negative

● SUPPLY VOLTAGE

1	5V
2	12V
3	24V

● LED COLOR

R	Red
G	Green
RG	Dual-Color (Red/Green)

KD-D

● DISPLAY

D	Character Unit
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● DISPLAY TYPE

0	Full-Face
2	Split-Face
3	Dual-Color

● LED COLOR

R	Red
G	Green

A

● LEGEND PLATE

A	Attached
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● SUPPLY VOLTAGE

1	5V
2	12V
3	24V

Full-Face : Put color no. into the frame 1
 Split-Face : Put color no. into the frame 1,2
 Dual-Color Put color no. RG into the frame 1, 2

Sunmulon mark

* In case of Split-Face, LED and color location should be specified as follow:

1	Upper
2	Lower