

TL LED Indicator

Free Size LED Indicator

- Arrange 25 mm square size light cartridge as matrix, and make large size Indicator as you like.
- It is also used as LED backlight.
(PCB mounting type available)



(Unit)



(Matrix Indicator)



(Free Size Indicator)



Specifications

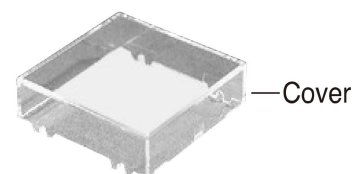
Insulation Resistance	More than 100MΩ at 500V DC
Dielectric Strength	1500V AC RMS between terminals and ground (50/60Hz for 60sec. at normal ambient temperature and humidity)
Reverse Dielectric Strength	150V
Ambient Temperature	-10°C~+40°C
Ambient Humidity	45~80% RH

LED DATA

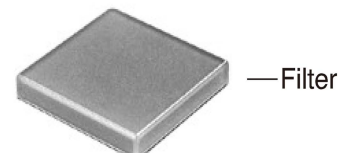
DC Supply Voltage (V)	Current Rating (mA)														
	Mono-Color			3-Color									Mono, Super LED		
	Red	Green	Yellow	Red/Green			Green/Yellow			Yellow/Red			Super Blue	Super Green	Super White
				Red	Green	Red/Green	Green	Yellow	Green/Yellow	Yellow	Red	Yellow/Red			
DC12V (±5%)	12	21	17	12	21	18	21	17	19	17	12	18	21	14	9
DC24V (±5%)	7	11	10	7	11	11	11	10	11	10	7	11	11	8	5

Structure

(Unit)



—Cover



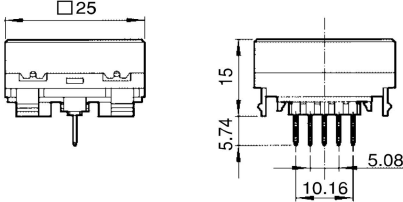
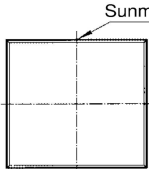
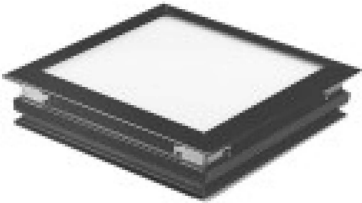
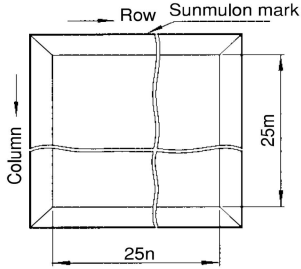
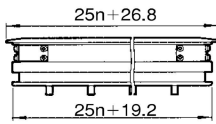
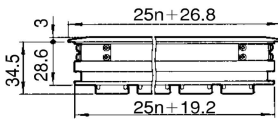
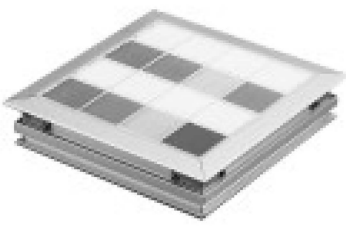
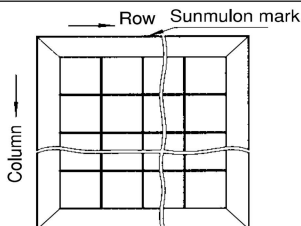
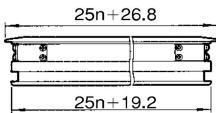
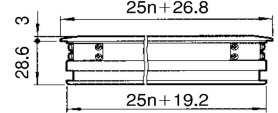
—Filter



—Light Cartridge (LED mounted)

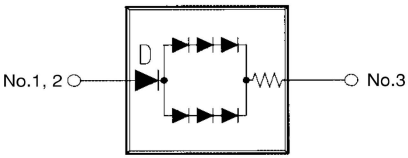
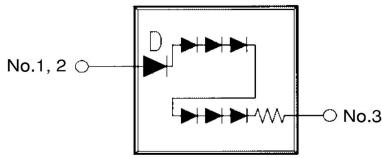
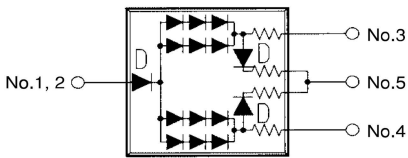
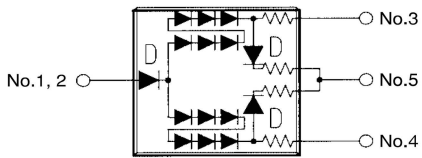
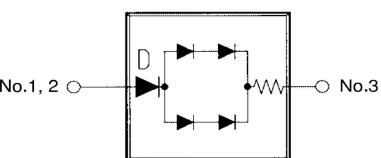
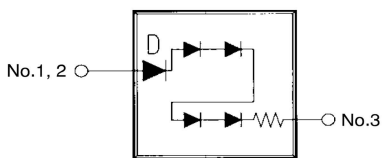
TL LED Indicator

Dimensions

Unit		  Top View
Free Size Indicator		  Panel Cut Dimension ※ Panel Thickness 1mm~6mm ※ n : Row m : Column (Face size : times of 25mm) 
Matrix Indicator		  Panel Cut Dimension ※ Panel Thickness 1mm~6mm ※ n : Row m : Column 

Tolerance : $\pm 0.4\text{mm}$

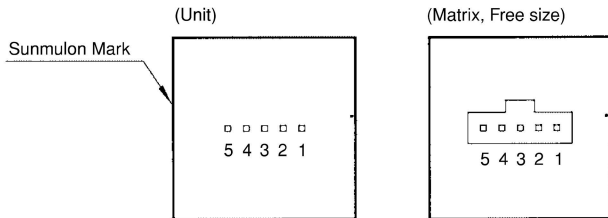
Internal Connection Arrangements

Mono-color	Red/Green/Yellow			
	12V		24V	
3-Color	Red/Green/Yellow combination			
	12V		24V	
Mono-color, Bright	Blue/Green/White			
	12V		24V	

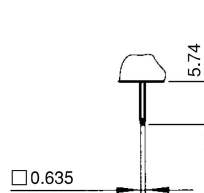
TL LED Indicator

Terminal

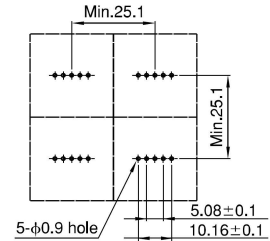
● TERMINAL LAYOUT



● TERMINAL SHAPE

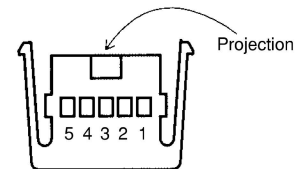


● PCB HOLE DIMENSIONS (UNIT)



Terminal No.	Mono Color	Mono Color Bright	3-Color (G/R)	3-Color (Y/R)	3-Color (G/Y)
1	Anode (+)	Anode (+)	Anode (+)	Anode (+)	Anode (+)
2	Cathode (-)	Anode (+)	Anode (+)	Anode (+)	Anode (+)
3	Cathode (-)	Cathode (-)	Cathode (-) Green	Cathode (-) Yellow	Cathode (-) Yellow
4			Cathode (-) Red	Cathode (-) Red	Cathode (-) Green
5			Cathode (-) G/R	Cathode (-) Y/R	Cathode (-) G/Y

● CONNECTOR

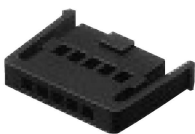


● Suitable wire

Wire size	Diameter
AWG #24-28	φ1.0~1.5mm

Accessories

● CONNECTOR (to be appended to Free Size/ Matrix Indicator)



Part No.	BL-0077
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Housing

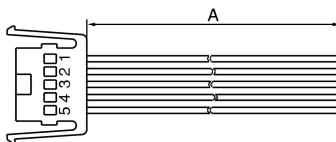


Contact Pin
Honda Tsushin Kogyo
made (HKP-F403)

Connector
(1 Housing & 5 Contact Pins)
to be appended.

● Wire Harness

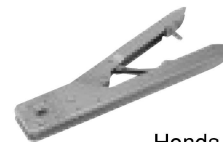
Wire : UL1061, AWG26



Pin no.	5	4	3	2	1
Color	Red	Green	Yellow	Blue	Grey

A Length	Part No.
50cm	CL-0230
100cm	CL-0231

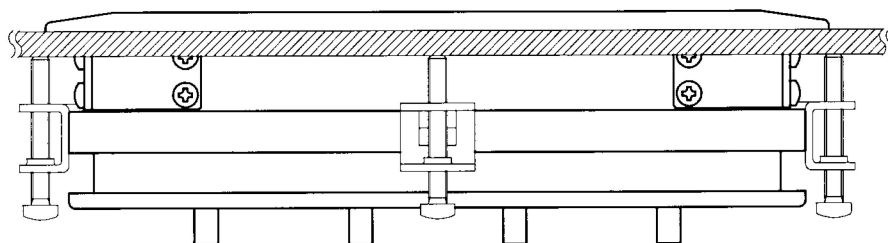
● Contact Pin press Tool



Honda Tsushin Kogyo made
(KP-309)

Mounting

● Mounting method for Free size/Matrix Indicators.



Fix with mounting screws(appended) from back side.

TL LED Indicator

Ordering Code

UNIT

TL — 1 2 C

● **ILLUMINATION**

S0	Mono-color	※ 1)
S3	3-color	
S4	Mono-color, super LED	

● **LED COLOR**

7	Red	Mono-color : Put color no. into the frame 1 3-Color : Put color no. into the frame 1, 2 (color combination : 87, 89, 97) ※ 2)
8	Green	
9	Yellow	
18	Super Green	Mono-color, super LED : Put color no. into the frame 1 (3-color type is not provided)
14	Super Blue	
16	Super White	

◆ ※ 1) In case of 3-color type, filter to be selected 4 (Milk White).
Simultaneous lighting while no.3 & 4 terminal is impossible.

◆ ※ 2) 87 Green, Red, G/R
89 Green, Yellow, G/Y
97 Yellow, Red, Y/R

● **SUPPLY VOLTAGE**

2	12V
3	24V

● **TERMINAL**

C	PCB terminal
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● **FILTER COLOR**

1	Red	◆ "Yellow" color for LED/Filter is actually "Orange Yellow". ◇ Lemon Yellow Filter to be used with Green LED(8).
2	Green	
3	Yellow	
4	Milk White	
6	Blue	
8	Lemon Yellow	
×	Without Filter	

● **COVER**

C	Transparent
×	Without cover

FREE SIZE INDICATOR

TL — × 1 2 C K

● **COLUMN**

01	1
⋮	⋮
10	10

● **ROW**

01	1
⋮	⋮
10	10

● **ILLUMINATION**

S0	Mono-color	※ 1)
S3	3-color	
S4	Mono-color, super LED	

◆ ※ 3)

● **LED COLOR**

7	Red	Mono-color : Put color no. into the frame 1 3-Color : Put color no. into the frame 1, 2 (color combination : 87, 89, 97) ※ 2)
8	Green	
9	Yellow	
18	Super Green	Mono-color, super LED : Put color no. into the frame 1 (3-color type is not provided)
14	Super Blue	
16	Super White	

◆ ● Face size : times of 25mm
● 01(column) × 01(row) not available.
● Free Size Indicator is full order made.

● **MATRIX FRAME**

K	Black
S	Silver

● **SUPPLY VOLTAGE**

2	12V
3	24V

● **TERMINAL**

K	Connector
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● **FILTER COLOR**

1	Red	◆ "Yellow" color for LED/Filter is actually "Orange Yellow". ◇ Lemon Yellow Filter to be used with Green LED(8).
2	Green	
3	Yellow	
4	Milk White	
6	Blue	
8	Lemon Yellow	

● **COVER**

C	Transparent
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MATRIX INDICATOR

TL — × K

● **COLUMN**

01	1
⋮	⋮
10	10

● **ROW**

01	1
⋮	⋮
10	10

● **MATRIX FRAME**

K	Black
S	Silver

● **TERMINAL**

K	Connector
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According to user's specification, suffix no. will be given.

● In case of Matrix Indicator, please inquiry us how to order.