

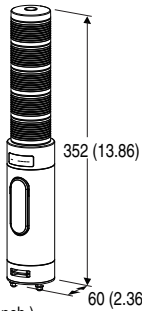
Tower Light Series

DISCRETE INPUT TOWER LIGHT

(small size, 50 mm dia., 1 - 5 layers)

Functions & Features

- Discrete input tower light
- Lighting, blinking and buzzing are controllable with PLC.
- Switchable between positive and negative common for input



Lamp Layers	A
1	224 (8.82)
2	256 (10.08)
3	288 (11.34)
4	320 (12.60)
5	352 (13.86)

MODEL: IT50SA1-[1][2][3][4][5][6]D1-[7][8]

ORDERING INFORMATION

- Code number: IT50SA1-[1][2][3][4][5][6]D1-[7][8]
Specify a code from below for each [1] through [8].
(e.g. IT50SA1-5RYGBWD1-M2/Q)
- Use Ordering Information Sheet (No. ESU-2375) to select the same color for more than one layer.
- Specify the specification for option code /Q
(e.g. /C01)

[1] LAMP LAYERS

- 1: 1 layer
- 2: 2 layers
- 3: 3 layers
- 4: 4 layers
- 5: 5 layers

[2] LAMP 1 COLOR

(1st layer from the top)

- R: Red
- Y: Amber
- G: Green
- B: Blue
- W: White

[3] LAMP 2 COLOR

(2nd layer from the top)

- R: Red
- Y: Amber
- G: Green
- B: Blue
- W: White
- N: None (not available when Lamp Layers selected are 2 - 5)

[4] LAMP 3 COLOR

(3rd layer from the top)

- R: Red
- Y: Amber
- G: Green
- B: Blue
- W: White
- N: None (not available when Lamp Layers selected are 3 - 5)

[5] LAMP 4 COLOR

(4th layer from the top)

- R: Red
- Y: Amber
- G: Green
- B: Blue
- W: White
- N: None (not available when Lamp Layers selected are 4 - 5)

[6] LAMP 5 COLOR

(5th layer from the top.)

- R: Red
- Y: Amber
- G: Green
- B: Blue
- W: White
- N: None (not available when Lamp Layers selected are 5)

* Select "None" option for the layers other than the selected.

MOUNTING

- D: Direct mounting

DESIGN TYPE

1: Type 1
(refer to outline dimensions)

[7] POWER INPUT

AC Power

M2: 100 – 240 V AC (Operational voltage range 85 – 264 V, 47 – 66 Hz)

DC Power

R: 24 V DC
(Operational voltage range 24 V \pm 10 %, ripple 10 %p-p max.)

[8] OPTIONS

blank: none
/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to M-System's web site.)

/C01: Silicone coating
/C02: Polyurethane coating
/C03: Rubber coating

RELATED PRODUCTS

- Mounting Pole (model: ITPL)
- Mounting Adapter (model: ITAD1)

GENERAL SPECIFICATIONS

Degree of protection: IP 65, vertical mounting only (bottom excluded)

Connection

Power: UL1007 AWG20

Input: UL1007 AWG22

Housing material: Flame-resistant resin

Lens: Flame-resistant resin (transparent)

Isolation: Input to power input to FE1 (Functional Earth) (M2 power input only)

DIP SW Setting: Refer to the instruction manual

- Buzzer volume level
- Buzzer intermittent frequency
- Lamp blinking frequency

Lamp: Red, amber, green, blue and white LEDs on/blinking (approx. 2 Hz, 10 Hz)

Status indicator

Power: Green LED turns ON in normal operating conditions.

Buzzing: Approx. 3.3 kHz

Interval: continuous/intermittent (approx. 2 Hz, 10 Hz)

INPUT SPECIFICATIONS

■ **Discrete Input:** Dry contact, open collector PNP or NPN

Conformity contact:

Load voltage: \geq 35 V DC

Load current: \geq 50 mA/point

Residual voltage: \leq 0.5 V

Leakage current: \leq 0.1 mA

PNP is not available for 100 – 240 V AC power.

INSTALLATION

Power consumption

• **AC:** Approx. 5 VA at 100 V

Approx. 7 VA at 200 V

Approx. 8 VA at 240 V

• **DC:** Approx. 2.5 W; approx. 100 mA

Operating temperature: -10 to +55°C (14 to 131°F)

Operating humidity: 30 to 90 %RH (non-condensing)

Atmosphere: No corrosive gas

Mounting: Direct mounting

Mounting direction: Vertical

Weight: 700 g (1.5 lb)

PERFORMANCE

Insulation resistance: \geq 100 M Ω with 500 V DC (M2 power only)

Dielectric strength: 1500 V AC @ 1 minute (input to power to FE1; M2 power only)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EN 60947-5-1

Low Voltage Directive

EN 60947-5-1

24 V DC power

Installation Category III

Pollution Degree 3

100 – 240 V AC power

Installation Category II

Pollution Degree 2

Input to power: Reinforced insulation (300 V)

RoHS Directive

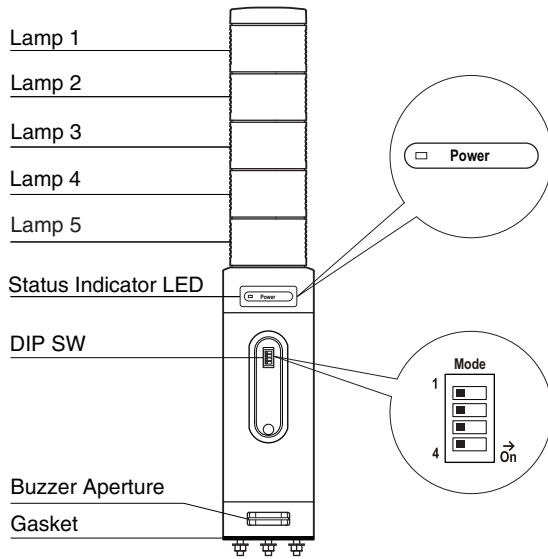
EN 50581

Protection against access to the terminal blocks:

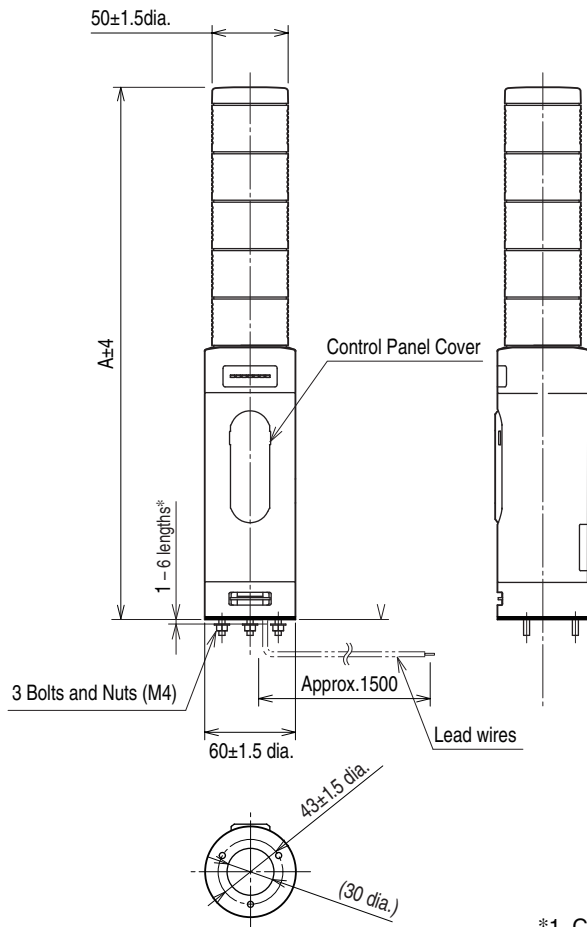
Finger protection (VDE 0660-514)

EXTERNAL VIEW

■ FRONT VIEW (with the cover open)



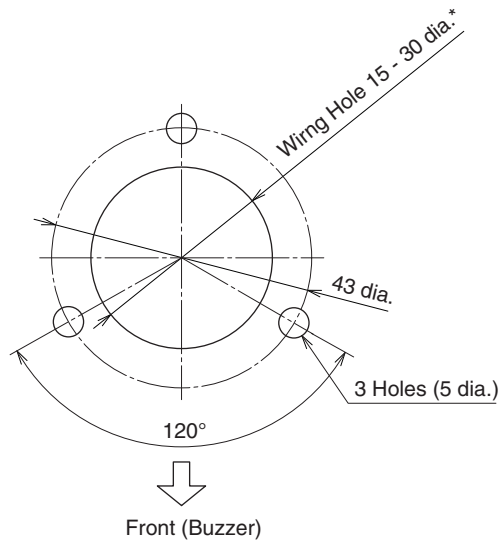
DIMENSIONS unit: mm



Lamp Layers	A
1	224
2	256
3	288
4	320
5	352

*1. Consult M-System for other bolt length.

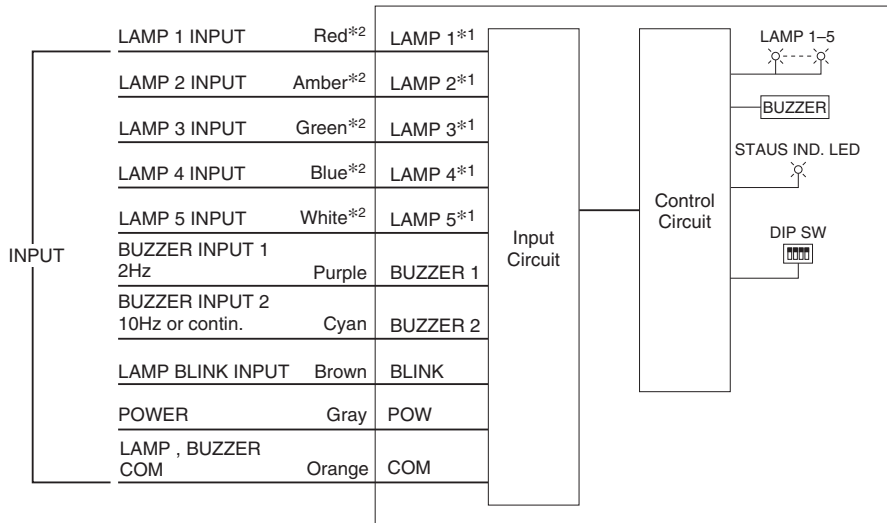
MOUNTING REQUIREMENTS unit: mm



*Protect wires to prevent scratching them at the edge of the compartment.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

■ DC POWER

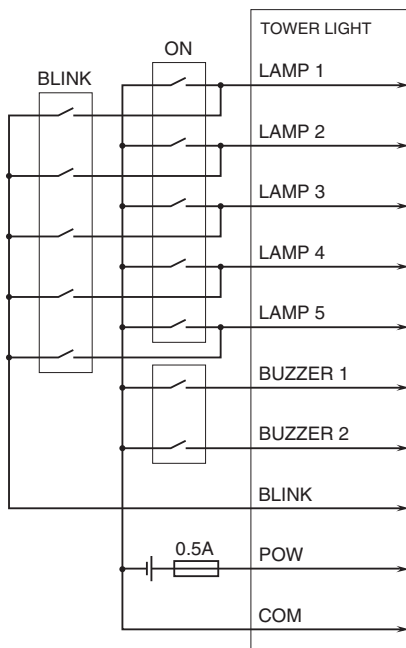


*1. Example of 5 layers in order: red, amber, green, blue and white.
Lamp and wire color are the same.

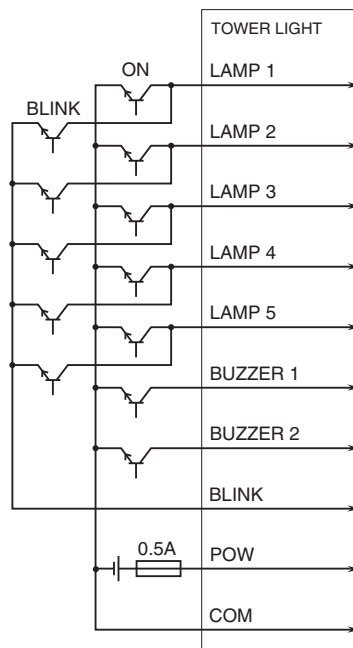
*2. When selecting the same color for more than one layer, cable colors comply with ordering information sheet.

■ WIRING TO INPUT SIGNAL

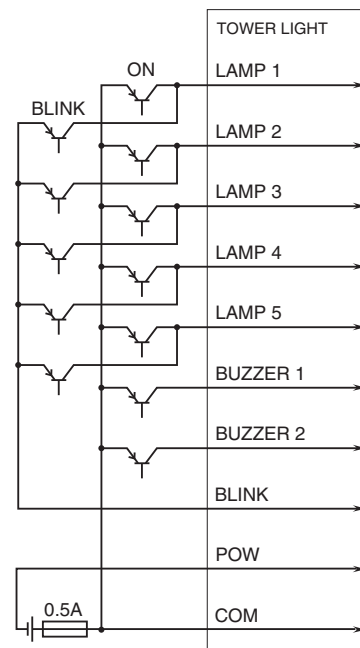
• Contact input e.g.



•NPN input e.g.

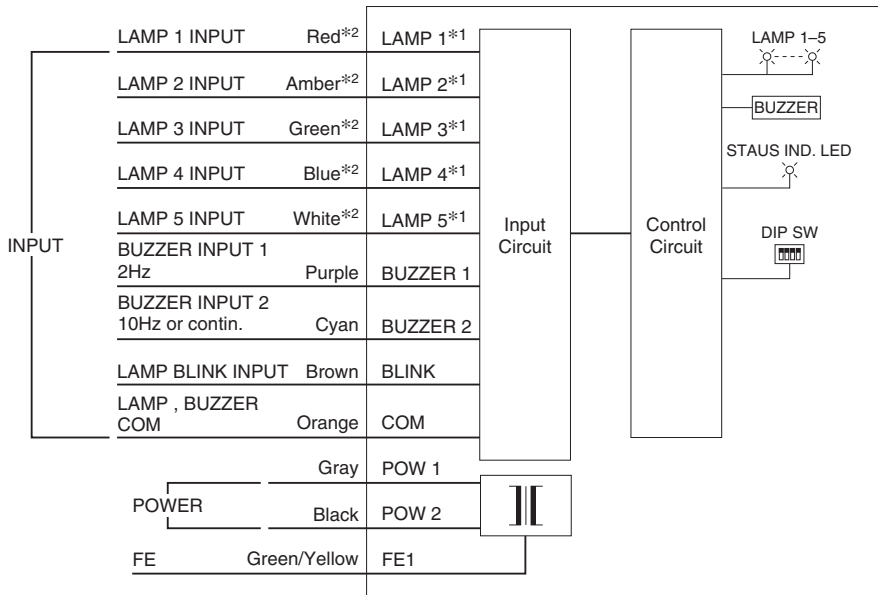


•PNP input e.g.



Note 1: Do not set lamp ON input to "On" and BLINK input to "Blink" at the same time whatsoever, it might result in shortcircuit.

■ AC POWER

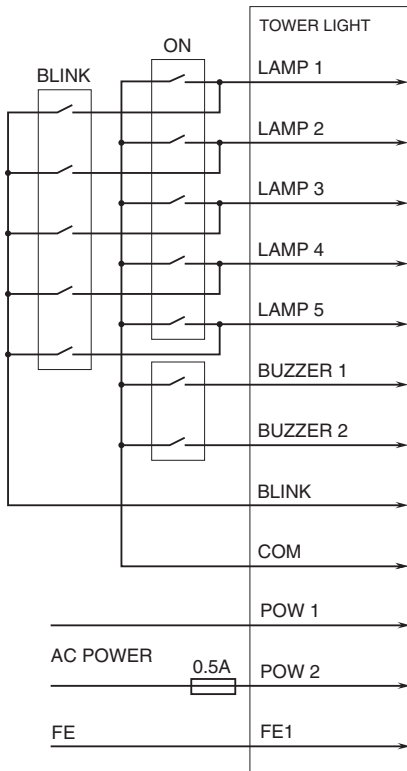


*1. Example of 5 layers in order: red, amber, green, blue and white.
Lamp and wire color are the same.

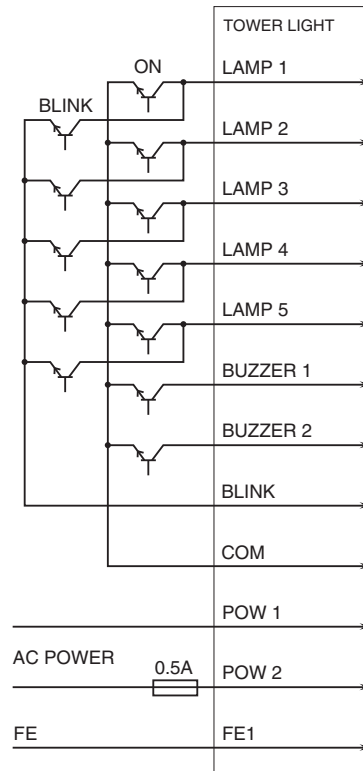
*2. When selecting the same color for more than one layer, cable colors comply with ordering information sheet.

■ WIRING TO INPUT SIGNAL

• Contact input e.g.



•NPN input e.g.



Note 1: Do not set lamp ON input to "On" and BLINK input to "Blink" at the same time whatsoever, it might result in shortcircuit.

Note 2: In order to improve EMC performance, bond the FE1 terminal to ground.

Caution: FE1 terminal is NOT a protective conductor terminal.



Specifications are subject to change without notice.