PATLABOR™

Discrete Input Tower Light
(60 mm dia., 4 layers)

MODEL **IT60A1**

BEFORE USE ....

Thank you for choosing M-System. Before use, please check contents of the package you received as outlined below.
If you have any problems or questions with the product, please contact M-System's Sales Office or representatives.

■PACKAGE INCLUDES:

Tower Light ....(1)

■MODEL NO.

Confirm Model No. marking on the product to be exactly what you ordered.

■INSTRUCTION MANUAL

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

POINTS OF CAUTION

■POWER INPUT RATING & OPERATIONAL RANGE

• Locate the power input rating marked on the product and confirm its operational range as indicated below:
    100 – 240 V AC rating: 85 – 264 V, 47 – 66 Hz,
                approx. 5 VA at 100 V AC
                approx. 7 VA at 200 V AC
                approx. 8 VA at 240 V AC
    24 V DC rating: 24 V ±10 %, approx. 2.5 W

■GENERAL PRECAUTIONS

• Before you remove the unit or mount it, turn off the power supply and input signals for safety.
• The unit must not be subjected to external force.
• Do not rub the unit with organic solvent like paint thinner.

■ENVIRONMENT

• Indoor use.
• Do not install the unit where it is subjected to continuous vibration. Do not subject the unit to physical impact.
• Environmental temperature must be within -10 to +55°C (14 to 131°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.
• Mount the unit on a flat and robust plate.
• Lamps are omnidirectional.
• The buzzer sound is directional in front of the unit.

■INGRESS PROTECTION (IP65)

• The IP code is conformable when the unit is mounted vertically, dummy antennae are installed if it is Design Type 2, and the control panel cover is locked. The compartment, where connectors are located, is not protected.
• Before close the control panel cover, make sure that dust is not on the gasket, and lock tightly. When open the cover, be careful that moisture does not attach. If moisture attaches, dry it up before close the cover.
• When the unit is Design Type 2, tighten the nuts of dummy antennae surely.
• In order to protect ingress of water or dust into the bottom compartment, mount the unit on the flat plane, and be sure that the gasket does not roll back or dust is not on the gasket.
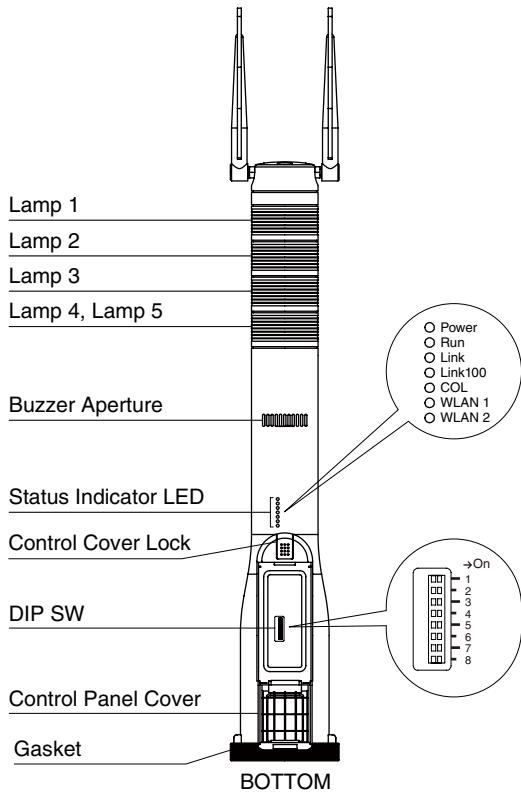
■WIRING

• Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
• Do not bind these cables together with those in which noises are present. Do not install them in the same duct.
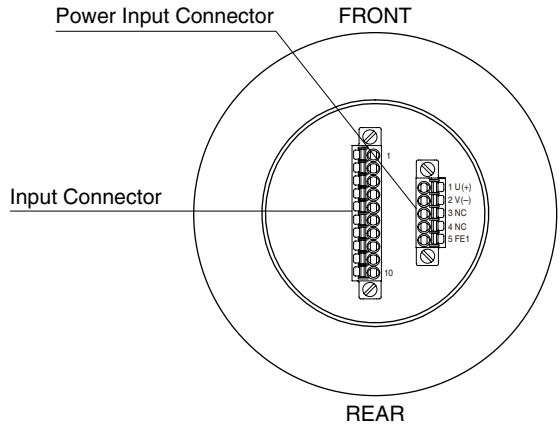• Protect wires to prevent scratching them at the edge of the compartment.

■AND ....

• The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.
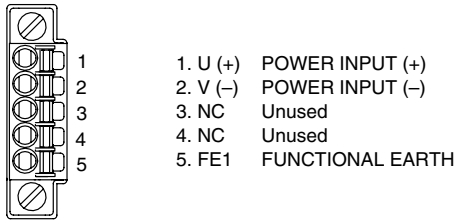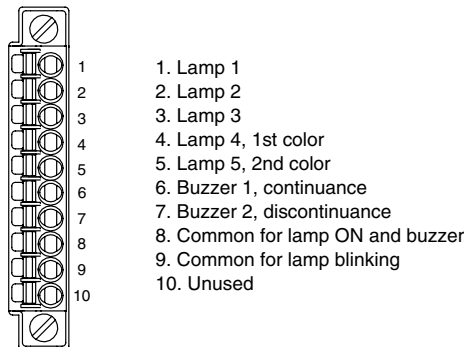
COMPONENT IDENTIFICATION

■ FRONT VIEW

Lamp 1
Lamp 2
Lamp 3
Lamp 4, Lamp 5

Buzzer Aperture

Status Indicator LED

Control Cover Lock

DIP SW

Control Panel Cover

Gasket

BOTTOM

○ Power
○ Run
○ Link
○ Link100
○ COL
○ WLAN 1
○ WLAN 2

→On
1
2
3
4
5
6
7
8

■ BOTTOM VIEW

Power Input Connector   FRONT

Input Connector

1 U (+)
2 V (−)
3 NC
4 NC
5 FE1

REAR

■ STATUS INDICATOR LED

ID	COLOR	FUNCTION
Power	Green	Turns on when the power is supplied normally
Run	–	Unused
Link	–	Unused
Link100	–	Unused
COL	–	Unused
WLAN1	–	Unused
WLAN2	–	Unused

*1. Used only in 100BASE link. Dark in 10BASE link.

■ POWER CONNECTOR

1. U (+)   POWER INPUT (+)
2. V (−)   POWER INPUT (−)
3. NC   Unused
4. NC   Unused
5. FE1   FUNCTIONAL EARTH

■ INPUT CONNECTOR

1. Lamp 1
2. Lamp 2
3. Lamp 3
4. Lamp 4, 1st color
5. Lamp 5, 2nd color
6. Buzzer 1, continuance
7. Buzzer 2, discontinuance
8. Common for lamp ON and buzzer
9. Common for lamp blinking
10. Unused

■ OPERATING MODE

(*) Factory setting

• Lamp blinking frequency

SW1-1	LAMP BLINKING FREQUENCY
OFF	Approx. 2 Hz (*)
ON	Approx. 10 Hz

• Buzzer intermittent frequency

SW1-2	BUZZER INTERMITTENT FREQUENCY
OFF	Approx. 2 Hz (*)
ON	Approx. 10 Hz

• Buzzer volume

SW1-3	SW1-4	BUZZER VOLUME
OFF	OFF	Quiet (*)
OFF	ON	Middle
ON	OFF	Loud
ON	ON	Maximum

• Input configuration

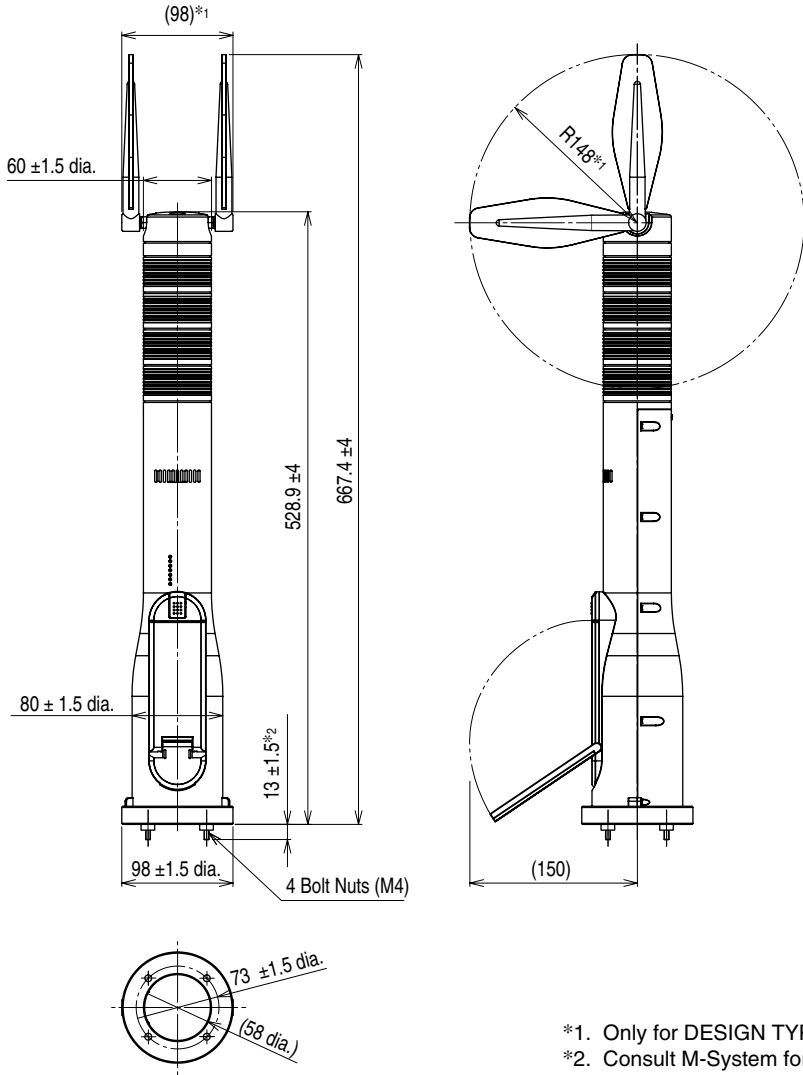| SW1-5	INPUT CONFIGURATION
OFF	Negative common (NPN), discrete input (*)
ON	Positive common (PNP)

Note 1: Blinking of lamps and intermittent of buzzer are not synchronized.
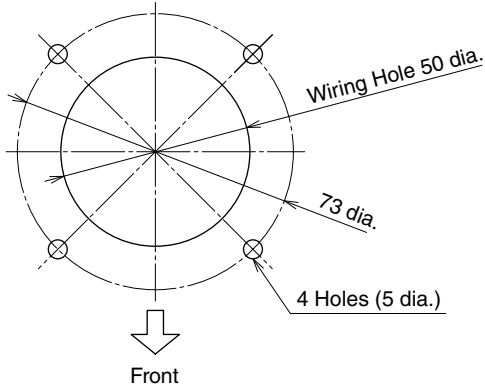Note 2: Be sure to set unused SW1-6 through 1-8 to OFF.

TERMINAL CONNECTIONS

Connect the unit as in the diagram below.

■ EXTERNAL DIMENSIONS unit: mm

(98)*1

60 ±1.5 dia.

R148*1

528.9 ±4

667.4 ±4

80 ± 1.5 dia.

13 ±1.5*2

98 ±1.5 dia.

4 Bolt Nuts (M4)

(150)

73 ±1.5 dia.

(58 dia.)

*1. Only for DESIGN TYPE option code 2.
*2. Consult M-System for other bolt length.

■ MOUNTING REQUIREMENTS unit: mm

Wiring Hole 50 dia.
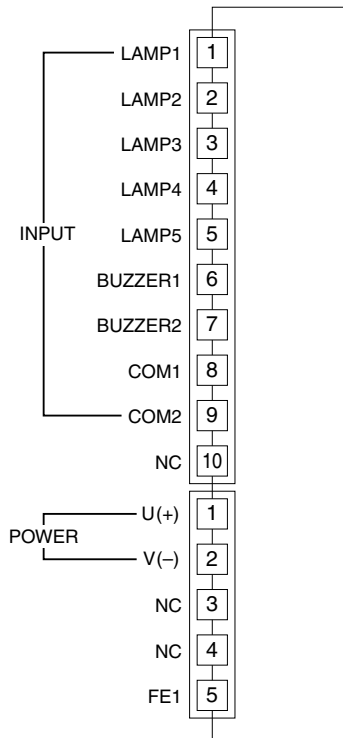
73 dia.

4 Holes (5 dia.)

Front

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

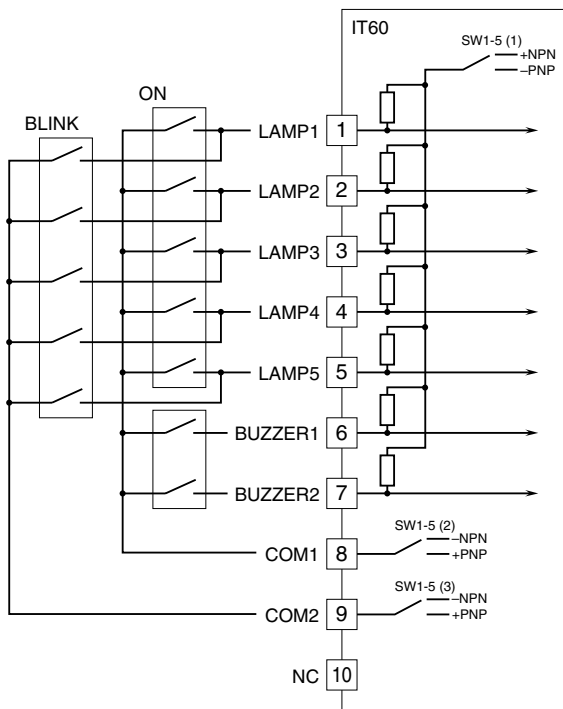## WIRING INSTRUCTIONS

■ TENSION-CLAMP TERMINAL

Applicable wire size: 0.2 to 1.5 mm^2
Stripped length: 10 mm
Recommended solderless terminal
• AI0,5–10WH 0.5 mm^2 (Phoenix Contact)
• AI0,75–10GY 0.75 mm^2 (Phoenix Contact)

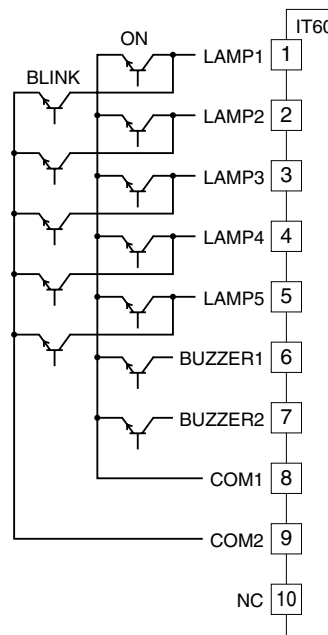## ■ CONNECTION DIAGRAM

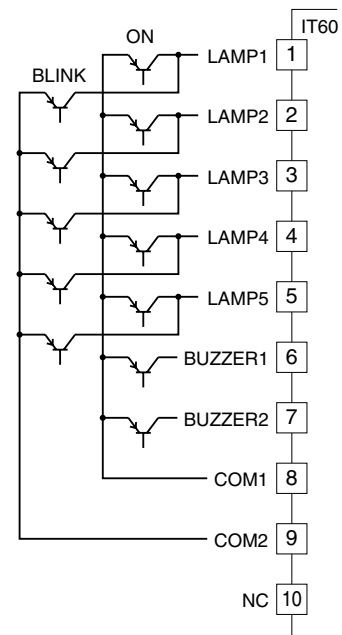## ■ WIRING TO INPUT SIGNAL
• Contact input connection e.g.

• NPN input e.g.

• PNP input e.g.

Note 1: SW1-5 turns on NPN input and contact input; PNP input tuns off SW1-5 input.
Note 2: If "On" (Continuous) and "Blinking" (Intermittent) are set simultaneously for a single lamp (buzzer), "Blinking" (Intermittent) is disabled.
        If one of lamps is set "On" and "Blinking" simultaneously, setting of "Blinking" for other lamps is disabled.