

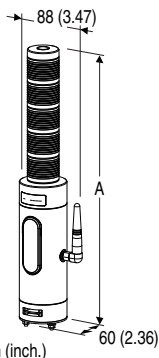
Tower Light Series

WIRELESS LAN TOWER LIGHT

(small size, 40 mm dia., Modbus/TCP, access point, 1 - 5 layers)

Functions & Features

- Lighting, blinking and buzzing available with contact input or PC via Modbus/TCP.
- Contact input status acquisition available through wireless LAN.
- Connection to network with bridge function, in remote I/O Ethernet type via wireless LAN.
- Wireless LAN access point complied with IEEE802.11b/g/n
- Nondirectional antenna (360°horizontal)
- Client use is available by mode change.
- Conforming to Electronic Communications Act, 2005 of the Republic of South Africa



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

MODEL: IT40SW2-[1][2][3][4][5][6]D2-R

ORDERING INFORMATION

• Code number: IT40SW2-[1][2][3][4][5][6]D2-R
Specify a code from below for each [1] through [6].
(e.g. IT40SW2-5RYGBWD2-R)

[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

- R: Red
- Y: Amber
- G: Green
- B: Blue
- W: White
- N: None (not available when Lamp Layers selected are 5)
- * The selection of the same color for more than one layer is not available.
- * Select "None" option for the layers other than the selected.

MOUNTING

D: Direct mounting



DESIGN TYPE

2: Type 2
(refer to outline dimensions)

POWER INPUT

DC Power

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

RELATED PRODUCTS

- LAN cable (model: ITCA)
 - Mounting Pole (model: ITPL)
 - PC configurator software (model: ITCFG)
- Functions are configurable using the PC Configurator Software.
Downloadable at M-System's web site.

GENERAL SPECIFICATIONS

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

Connection

Power: UL1007 AWG20

Input: UL1007 AWG22

Ethernet: RJ-45 Modular Jack

Housing material: Flame-resistant resin

Lens: Flame-resistant resin (transparent)

Isolation: Discrete input or power input to network

DIP SW Setting: Frequency of lamp blinking and buzzing discontinuance, buzzing volume level, output at connection failed and IP address (refer to the instruction manual)

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

Indicator LEDs: Power, Run, Link, Link100, COL and WLAN1 (6 LEDs) indicate the module's operating conditions. (Refer to the instruction manual)

Buzzing: Approx. 3.3 kHz

Interval: continuance/discontinuance (approx. 2 Hz, 10 Hz)

COMMUNICATION

■ Common spec.

Modbus protocol

Protocol: Modbus/TCP

Data: RTU (Binary)

Port No.: 502

Max. number of socket connections: 10

DHCP protocol: DHCP server

IP address: 192.168.0.1 (factory setting);
Selectable with PC Configurator Software

■ Ethernet

Communication Standard: IEEE 802.3u

Transmission: 10BASE-T, 100BASE-TX

Baud rate: 10/100 Mbps (Auto Negotiation function)

Transmission media: 10BASE-T (STP, Category 5) 100BASE-TX (STP, Category 5e)

Max. length of fieldbus segment: 100 meters

IP address: 192.168.0.1 (factory setting);

Selectable with PC Configurator Software

Ethernet indicator LED: Link, Link100, COL

■ Wireless LAN

Communication Standard: IEEE 802.11b/g/n

Frequency range: 2400 - 2483.5 MHz (ch1 - ch13)

Max. transmission distance (optical): Approx. 50m (depends on setting)

Access mode: infrastructure

Security: WEP 64bit/128bit, WPA (TKIP, AES), WPA2 (TKIP, AES)

Wireless LAN indicator: WLAN1

Number of clients: 5

INPUT SPECIFICATIONS

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

Input resistance: Approx. 4.4 k Ω

Common: Negative common NPN

ON level: ≤ 5 V / ≥ 3.5 mA (Input - COM)

OFF level: ≥ 18 V DC / ≤ 1 mA (Input - COM)

Input current: ≤ 5.5 mA per point @ 24 V DC

INSTALLATION

Power consumption

• **DC:** Approx. 5.5 W

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

Operating humidity: 30 to 85 %RH (non-condensing)

Atmosphere: No corrosive gas

Mounting: Direct mounting

Mounting direction: Vertical

Weight: Approx. 650 g (1.43 lb)

PERFORMANCE

Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute (discrete input or power to network)



STANDARDS & APPROVALS

Built-in module certified under Japanese Radio Law

R&TTE Directive (1999/5/EC)

EN 300 328 V1.8.1: 2012

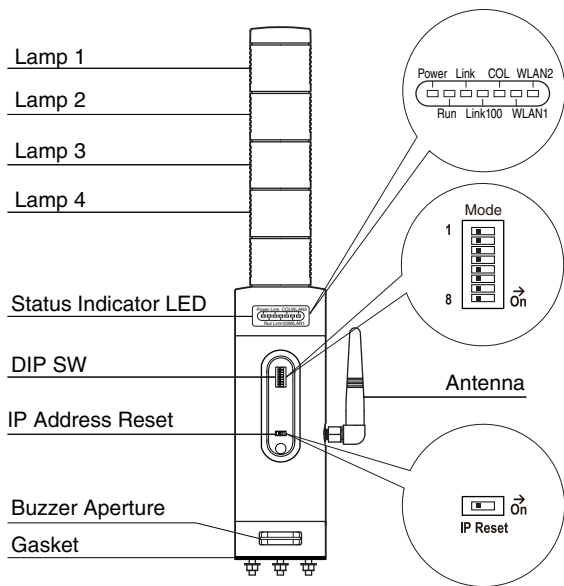
EN 301 489-1 V1.9.2: 2011

EN 60950-1: 2006/A12: 2011

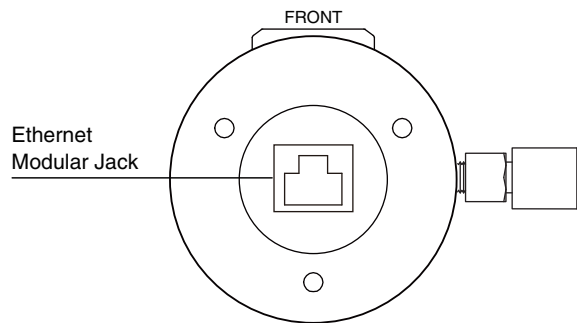
Certified under Electronic Communications Act, 2005 of ICASA (Independent Communications Authority of South Africa)

EXTERNAL VIEW

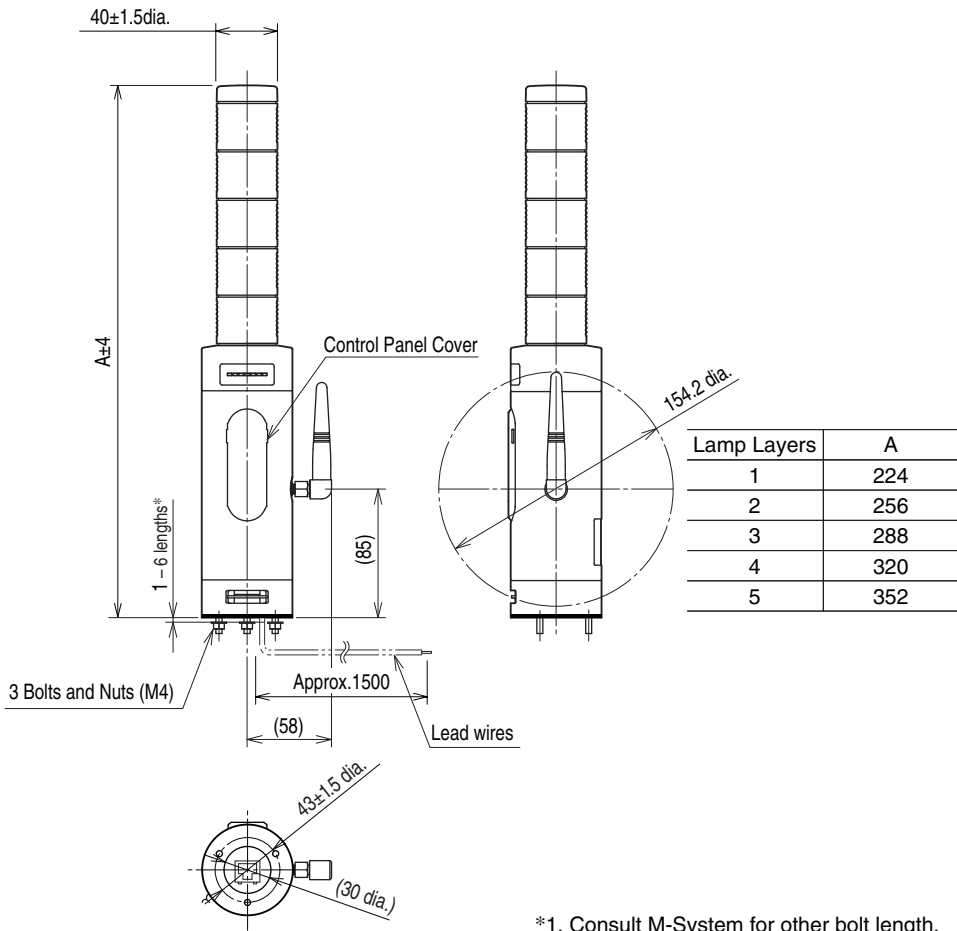
FRONT VIEW (with the cover open)



BOTTOM VIEW

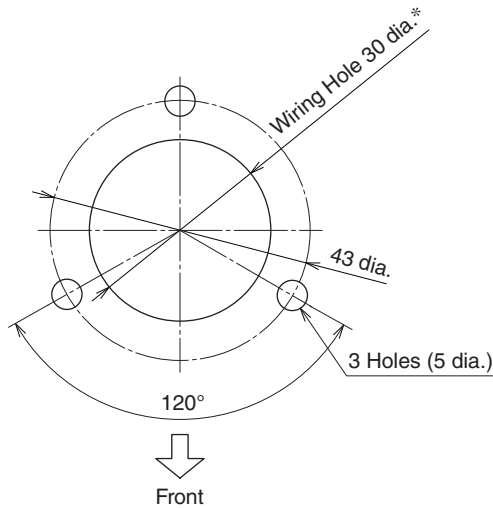


DIMENSIONS unit: mm



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

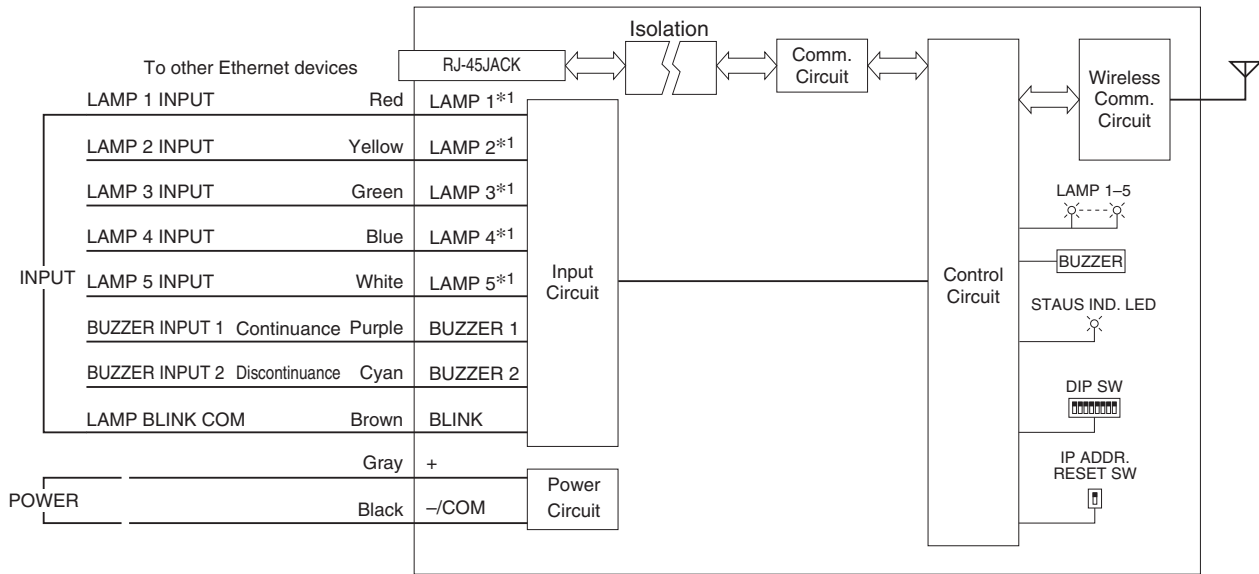
MOUNTING REQUIREMENTS unit: mm



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



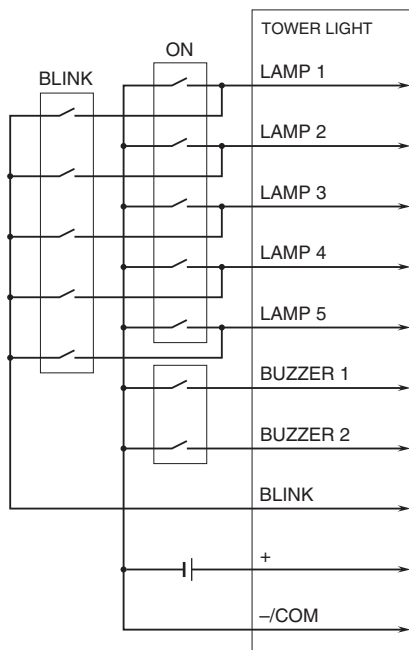
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



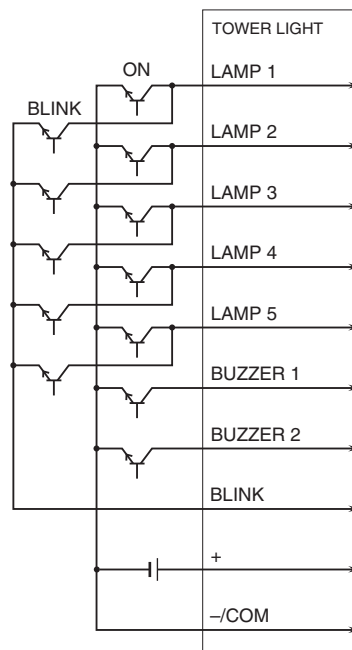
*1. Example of 5 layers in order: red, yellow, green, blue and white.
Lamp and wire color are the same.

■ WIRING TO INPUT SIGNAL

• Contact input e.g.



•NPN input e.g.

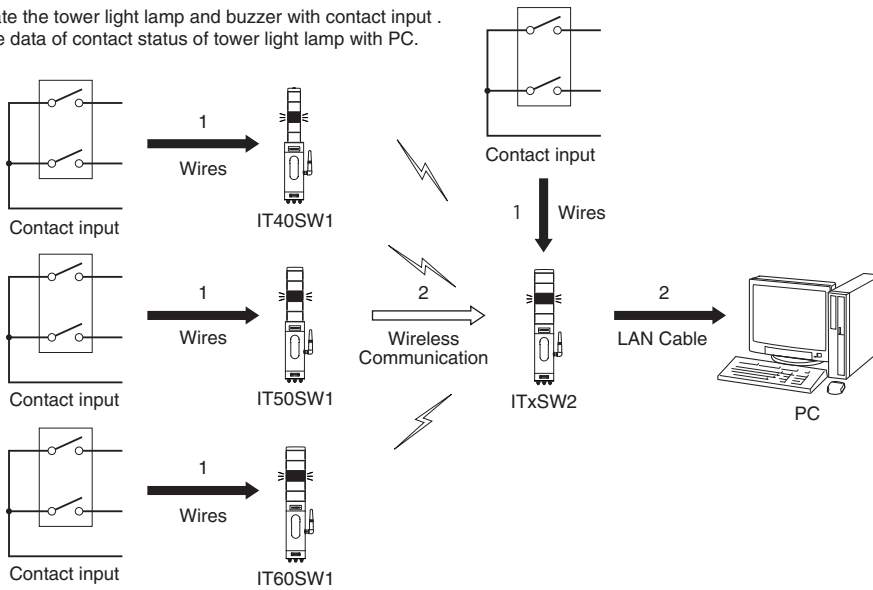


Note 1: If "On" (Continuous) and "Blink" (Intermittent) are set simultaneously for a single lamp (buzzer), "Blink" (Intermittent) is disabled.
The same procedure will be applied also for the others lamps.

SYSTEM CONFIGURATION EXAMPLES

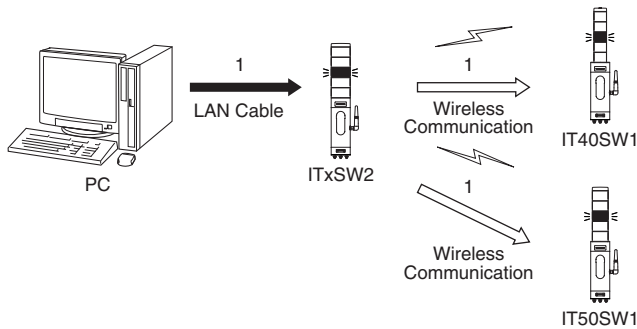
EXAMPLE 1

1. Activate the tower light lamp and buzzer with contact input .
2. Acquire data of contact status of tower light lamp with PC.



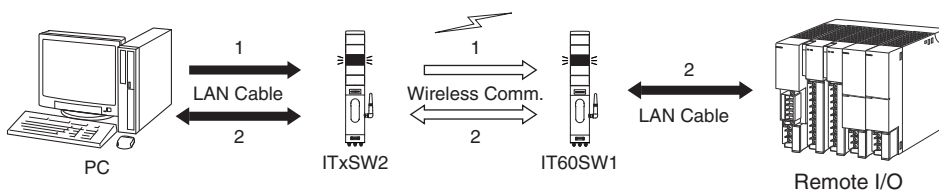
EXAMPLE 2

1. Activate the tower light lamp and buzzer with PC.



EXAMPLE 3

1. Activate the tower light lamp and buzzer with PC.
2. Interchange data between PC and Remote I/O.



Contact status of tower light described on example 1 is also available while interchanging data with PC. Client is available with ITxSW2.



Specifications are subject to change without notice.