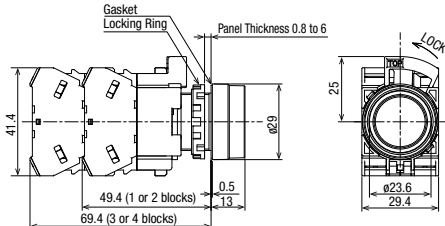
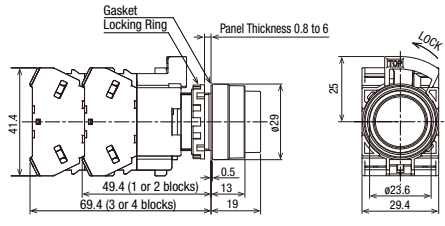
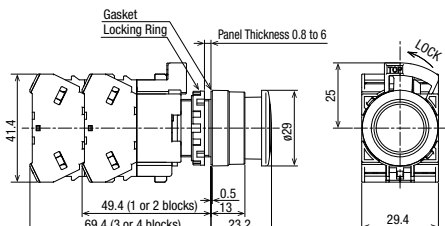
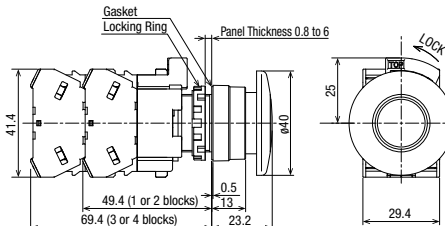
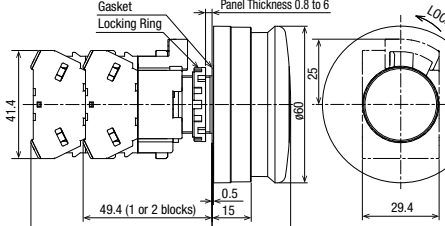


## ø22 HW Series Pushbuttons

## Flush / Extended / Mushroom Pushbuttons

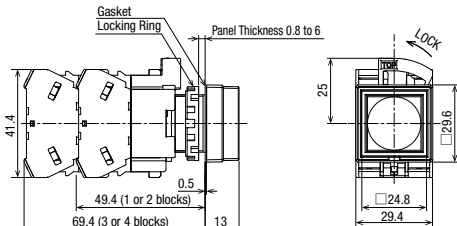
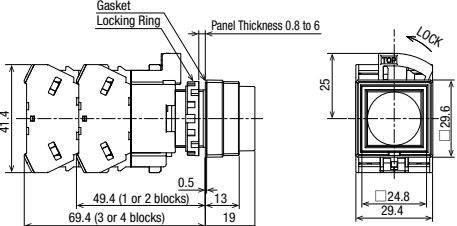
Quantity: 1

| Shape                                                                                                                    | Operation  | Contact | Part No.   | Color Code                 | Dimensions (mm)                                                                      |
|--------------------------------------------------------------------------------------------------------------------------|------------|---------|------------|----------------------------|--------------------------------------------------------------------------------------|
| Flush<br>HW1B-M1<br>HW1B-A1             | Momentary  | 1NO     | HW1B-M110* | B<br>G<br>R<br>Y<br>S<br>W |    |
|                                                                                                                          |            | 1NC     | HW1B-M101* |                            |                                                                                      |
|                                                                                                                          |            | 1NO-1NC | HW1B-M111* |                            |                                                                                      |
|                                                                                                                          |            | 2NO     | HW1B-M120* |                            |                                                                                      |
|                                                                                                                          |            | 2NC     | HW1B-M102* |                            |                                                                                      |
|                                                                                                                          |            | 2NO-2NC | HW1B-M122* |                            |                                                                                      |
|                                                                                                                          | Maintained | 1NO     | HW1B-A110* |                            |                                                                                      |
|                                                                                                                          |            | 1NC     | HW1B-A101* |                            |                                                                                      |
|                                                                                                                          |            | 1NO-1NC | HW1B-A111* |                            |                                                                                      |
|                                                                                                                          |            | 2NO     | HW1B-A120* |                            |                                                                                      |
|                                                                                                                          |            | 2NC     | HW1B-A102* |                            |                                                                                      |
|                                                                                                                          |            | 2NO-2NC | HW1B-A122* |                            |                                                                                      |
| Extended<br>HW1B-M2<br>HW1B-A2          | Momentary  | 1NO     | HW1B-M210* | B<br>G<br>R<br>Y<br>S<br>W |    |
|                                                                                                                          |            | 1NC     | HW1B-M201* |                            |                                                                                      |
|                                                                                                                          |            | 1NO-1NC | HW1B-M211* |                            |                                                                                      |
|                                                                                                                          |            | 2NO     | HW1B-M220* |                            |                                                                                      |
|                                                                                                                          |            | 2NC     | HW1B-M202* |                            |                                                                                      |
|                                                                                                                          |            | 2NO-2NC | HW1B-M222* |                            |                                                                                      |
|                                                                                                                          | Maintained | 1NO     | HW1B-A210* |                            |                                                                                      |
|                                                                                                                          |            | 1NC     | HW1B-A201* |                            |                                                                                      |
|                                                                                                                          |            | 1NO-1NC | HW1B-A211* |                            |                                                                                      |
|                                                                                                                          |            | 2NO     | HW1B-A220* |                            |                                                                                      |
|                                                                                                                          |            | 2NC     | HW1B-A202* |                            |                                                                                      |
|                                                                                                                          |            | 2NO-2NC | HW1B-A222* |                            |                                                                                      |
| ø29mm Mushroom<br>HW1B-M3<br>HW1B-A3  | Momentary  | 1NO     | HW1B-M310* | B<br>G<br>R<br>Y<br>S<br>W |  |
|                                                                                                                          |            | 1NC     | HW1B-M301* |                            |                                                                                      |
|                                                                                                                          |            | 1NO-1NC | HW1B-M311* |                            |                                                                                      |
|                                                                                                                          |            | 2NO     | HW1B-M320* |                            |                                                                                      |
|                                                                                                                          |            | 2NC     | HW1B-M302* |                            |                                                                                      |
|                                                                                                                          |            | 2NO-2NC | HW1B-M322* |                            |                                                                                      |
|                                                                                                                          | Maintained | 1NO     | HW1B-A310* |                            |                                                                                      |
|                                                                                                                          |            | 1NC     | HW1B-A301* |                            |                                                                                      |
|                                                                                                                          |            | 1NO-1NC | HW1B-A311* |                            |                                                                                      |
|                                                                                                                          |            | 2NO     | HW1B-A320* |                            |                                                                                      |
|                                                                                                                          |            | 2NC     | HW1B-A302* |                            |                                                                                      |
|                                                                                                                          |            | 2NO-2NC | HW1B-A322* |                            |                                                                                      |
| ø40mm Mushroom<br>HW1B-M4<br>HW1B-A4  | Momentary  | 1NO     | HW1B-M410* | B<br>G<br>R<br>Y<br>S<br>W |  |
|                                                                                                                          |            | 1NC     | HW1B-M401* |                            |                                                                                      |
|                                                                                                                          |            | 1NO-1NC | HW1B-M411* |                            |                                                                                      |
|                                                                                                                          |            | 2NO     | HW1B-M420* |                            |                                                                                      |
|                                                                                                                          |            | 2NC     | HW1B-M402* |                            |                                                                                      |
|                                                                                                                          |            | 2NO-2NC | HW1B-M422* |                            |                                                                                      |
|                                                                                                                          | Maintained | 1NO     | HW1B-A410* |                            |                                                                                      |
|                                                                                                                          |            | 1NC     | HW1B-A401* |                            |                                                                                      |
|                                                                                                                          |            | 1NO-1NC | HW1B-A411* |                            |                                                                                      |
|                                                                                                                          |            | 2NO     | HW1B-A420* |                            |                                                                                      |
|                                                                                                                          |            | 2NC     | HW1B-A402* |                            |                                                                                      |
|                                                                                                                          |            | 2NO-2NC | HW1B-A422* |                            |                                                                                      |
| ø60mm Mushroom<br>HW1B-M5             | Momentary  | 1NO     | HW1B-M510* | B<br>G<br>R                |  |
|                                                                                                                          |            | 1NC     | HW1B-M501* |                            |                                                                                      |
|                                                                                                                          |            | 1NO-1NC | HW1B-M511* |                            |                                                                                      |
|                                                                                                                          |            | 2NO     | HW1B-M520* |                            |                                                                                      |
|                                                                                                                          |            | 2NC     | HW1B-M502* |                            |                                                                                      |
|                                                                                                                          |            | 2NO-2NC | HW1B-M522* |                            |                                                                                      |

- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow), S (blue), W (white)
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See **B-184** for other contact configurations and gold-plated silver contacts.
- Pushbuttons: M3.5 Terminal screws integrated terminal cover

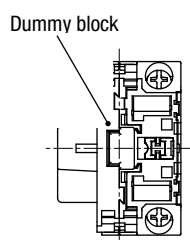
## Square Flush / Square Flush Pushbuttons

Quantity: 1

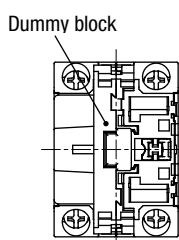
| Shape                                                                                                                          | Operation  | Contact | Part No.   | Color Code                 | Dimensions (mm)                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------|------------|---------|------------|----------------------------|------------------------------------------------------------------------------------|
| <b>Square Flush</b><br>HW2B-M1<br>HW2B-A1     | Momentary  | 1NO     | HW2B-M110* | B<br>G<br>R<br>Y<br>S<br>W |  |
|                                                                                                                                |            | 1NC     | HW2B-M101* |                            |                                                                                    |
|                                                                                                                                |            | 1NO-1NC | HW2B-M111* |                            |                                                                                    |
|                                                                                                                                |            | 2NO     | HW2B-M120* |                            |                                                                                    |
|                                                                                                                                |            | 2NC     | HW2B-M102* |                            |                                                                                    |
|                                                                                                                                | Maintained | 2NO-2NC | HW2B-M122* |                            |                                                                                    |
|                                                                                                                                |            | 1NO     | HW2B-A110* |                            |                                                                                    |
|                                                                                                                                |            | 1NC     | HW2B-A101* |                            |                                                                                    |
|                                                                                                                                |            | 1NO-1NC | HW2B-A111* |                            |                                                                                    |
|                                                                                                                                |            | 2NO     | HW2B-A120* |                            |                                                                                    |
| <b>Square Extended</b><br>HW2B-M2<br>HW2B-A2  | Momentary  | 1NO     | HW2B-M210* | B<br>G<br>R<br>Y<br>S<br>W |  |
|                                                                                                                                |            | 1NC     | HW2B-M201* |                            |                                                                                    |
|                                                                                                                                |            | 1NO-1NC | HW2B-M211* |                            |                                                                                    |
|                                                                                                                                |            | 2NO     | HW2B-M220* |                            |                                                                                    |
|                                                                                                                                |            | 2NC     | HW2B-M202* |                            |                                                                                    |
|                                                                                                                                | Maintained | 2NO-2NC | HW2B-M222* |                            |                                                                                    |
|                                                                                                                                |            | 1NO     | HW2B-A210* |                            |                                                                                    |
|                                                                                                                                |            | 1NC     | HW2B-A201* |                            |                                                                                    |
|                                                                                                                                |            | 1NO-1NC | HW2B-A211* |                            |                                                                                    |
|                                                                                                                                |            | 2NO     | HW2B-A220* |                            |                                                                                    |
|                                                                                                                                |            | 2NC     | HW2B-A202* |                            |                                                                                    |
|                                                                                                                                |            | 2NO-2NC | HW2B-A222* |                            |                                                                                    |

- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow), S (blue), W (white)
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See **B-184** for other contact configurations and gold-plated silver contacts.
- Pushbuttons: M3.5 Terminal screws

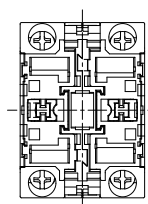
### Bottom View



1NO contact block



3 contact blocks



2/4 contact blocks

- For 1NC contact, the contact block will mount on the opposite side.
- See **B-227** for wiring.
- Integrated terminal cover

APEM

Switches & Pilot Lights

Control Boxes

Emergency Stop Switches

Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

ø30

Miniature

Pilot Lights

HW

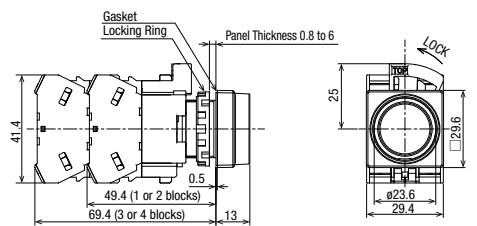
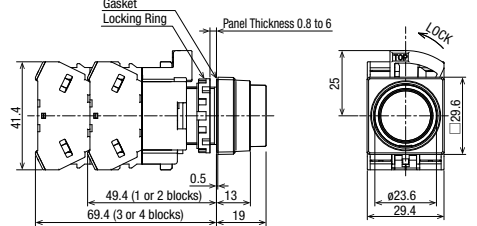
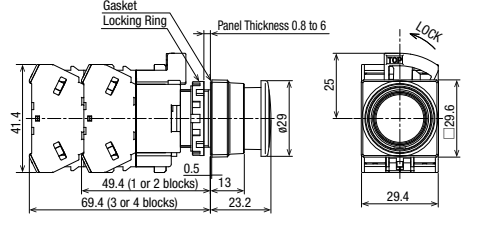
TW

YW

## ø22 HW Series Pushbuttons

## Round Flush / Round Extended /Mushroom with Square Bezel

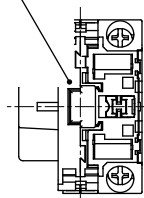
Quantity: 1

| Shape                                                                                                                                      | Operation  | Contact | Part No.   | Color Code                 | Dimensions (mm)                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|------------|----------------------------|--------------------------------------------------------------------------------------|
| Round Flush with Square Bezel<br>HW3B-M1<br>HW3B-A1       | Momentary  | 1NO     | HW3B-M110* | B<br>G<br>R<br>Y<br>S<br>W |    |
|                                                                                                                                            |            | 1NC     | HW3B-M101* |                            |                                                                                      |
|                                                                                                                                            |            | 1NO-1NC | HW3B-M111* |                            |                                                                                      |
|                                                                                                                                            |            | 2NO     | HW3B-M120* |                            |                                                                                      |
|                                                                                                                                            |            | 2NC     | HW3B-M102* |                            |                                                                                      |
|                                                                                                                                            | Maintained | 2NO-2NC | HW3B-M122* |                            |                                                                                      |
|                                                                                                                                            |            | 1NO     | HW3B-A110* |                            |                                                                                      |
|                                                                                                                                            |            | 1NC     | HW3B-A101* |                            |                                                                                      |
|                                                                                                                                            |            | 1NO-1NC | HW3B-A111* |                            |                                                                                      |
|                                                                                                                                            |            | 2NO     | HW3B-A120* |                            |                                                                                      |
| Round Extended with Square Bezel<br>HW3B-M2<br>HW3B-A2    | Momentary  | 1NO     | HW3B-M210* |                            |    |
|                                                                                                                                            |            | 1NC     | HW3B-M201* |                            |                                                                                      |
|                                                                                                                                            |            | 1NO-1NC | HW3B-M211* |                            |                                                                                      |
|                                                                                                                                            |            | 2NO     | HW3B-M220* |                            |                                                                                      |
|                                                                                                                                            |            | 2NC     | HW3B-M202* |                            |                                                                                      |
|                                                                                                                                            | Maintained | 2NO-2NC | HW3B-M222* |                            |                                                                                      |
|                                                                                                                                            |            | 1NO     | HW3B-A210* |                            |                                                                                      |
|                                                                                                                                            |            | 1NC     | HW3B-A201* |                            |                                                                                      |
|                                                                                                                                            |            | 1NO-1NC | HW3B-A211* |                            |                                                                                      |
|                                                                                                                                            |            | 2NO     | HW3B-A220* |                            |                                                                                      |
| ø29mm Mushroom with Square Bezel<br>HW3B-M3<br>HW3B-A3  | Momentary  | 1NO     | HW3B-M310* |                            |  |
|                                                                                                                                            |            | 1NC     | HW3B-M301* |                            |                                                                                      |
|                                                                                                                                            |            | 1NO-1NC | HW3B-M311* |                            |                                                                                      |
|                                                                                                                                            |            | 2NO     | HW3B-M320* |                            |                                                                                      |
|                                                                                                                                            |            | 2NC     | HW3B-M302* |                            |                                                                                      |
|                                                                                                                                            | Maintained | 2NO-2NC | HW3B-M322* |                            |                                                                                      |
|                                                                                                                                            |            | 1NO     | HW3B-A310* |                            |                                                                                      |
|                                                                                                                                            |            | 1NC     | HW3B-A301* |                            |                                                                                      |
|                                                                                                                                            |            | 1NO-1NC | HW3B-A311* |                            |                                                                                      |
|                                                                                                                                            |            | 2NO     | HW3B-A320* |                            |                                                                                      |
|                                                                                                                                            |            | 2NC     | HW3B-A302* |                            |                                                                                      |
|                                                                                                                                            |            | 2NO-2NC | HW3B-A322* |                            |                                                                                      |

- Specify a color code in place of \* in Part No. B (black), G (green), R (red), Y (yellow), S (blue), W (white)
- Pushbuttons with 1 or 3 contact blocks have a dummy block.
- See **B-184** for other contact configurations and gold-plated silver contacts.
- Pushbuttons: M3.5 Terminal screws

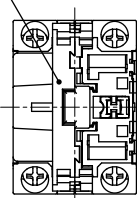
## Bottom View

Dummy block

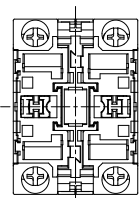


1NO contact block

Dummy block



3 contact blocks



2/4 contact blocks

- For 1NC contact, the contact block will mount on the opposite side.
- See **B-227** for wiring.
- Integrated terminal cover

Round Flush / Dome / Square Flush / Jumbo Dome Pilot Lights

Quantity: 1

| Shape                                                                                                                                                                                                                                                                | Lamp | Operating Voltage | Part No.  | Color Code                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------|-----------|-----------------------------|
| Round Flush (marking type)<br>HW1P-1<br><br>24V AC/DC<br><br>With transformer (100/110V AC)        | LED  | 24V AC/DC         | HW1P-1Q4* | R<br>G<br>Y<br>A<br>S<br>PW |
|                                                                                                                                                                                                                                                                      |      | 100/110V AC       | HW1P-1H2* |                             |
|                                                                                                                                                                                                                                                                      |      | 200/220V AC       | HW1P-1M2* |                             |
| Dome<br>HW1P-2<br><br>(24V AC/DC)<br><br>With transformer (100/110V AC)                           | LED  | 24V AC/DC         | HW1P-2Q4* | R<br>G<br>Y<br>A<br>S<br>PW |
|                                                                                                                                                                                                                                                                      |      | 100/110V AC       | HW1P-2H2* |                             |
|                                                                                                                                                                                                                                                                      |      | 200/220V AC       | HW1P-2M2* |                             |
| Square Flush (marking type)<br>HW2P-1<br><br>(24V AC/DC)<br><br>With transformer (100/110V AC) | LED  | 24V AC/DC         | HW2P-1Q4* | R<br>G<br>Y<br>A<br>S<br>PW |
|                                                                                                                                                                                                                                                                      |      | 100/110V AC       | HW2P-1H2* |                             |
|                                                                                                                                                                                                                                                                      |      | 200/220V AC       | HW2P-1M2* |                             |
| Jumbo Dome Pilot Light (*1)<br>HW1P-5<br>                                                                                                                                         | LED  | 24V AC/DC         | HW1P-5Q4* | R<br>G<br>Y<br>A<br>S<br>PW |

- Specify a color code in place of \* in Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- Pilot lights have an LED lamp installed unless otherwise specified.
- See **B-184** for other operating voltages.
- See **B-191** for bottom view.
- See **B-191** for how to specify units without LED lamps.

\*1) Jumbo dome pilot lights contain an exclusive LED. See **B-182** and **B-221**.

APEM

Switches & Pilot Lights

Control Boxes

Emergency Stop Switches

Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Flush Silhouette

ø16

ø22

ø30

Miniature

Pilot Lights

HW

TW

YW

## ø22 HW Series Pilot Lights

## Dimensions

All dimensions in mm.

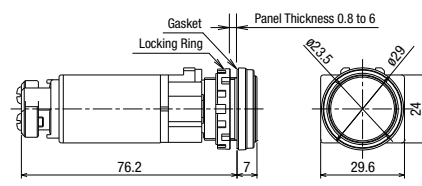
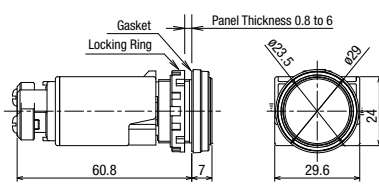
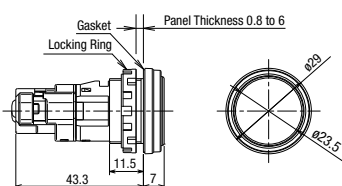
## Pilot Lights

**Round Flush** Terminal screws: M3.5, integrated terminal cover

6, 12, 24V AC/DC, Without LED lamp

100/110V AC, 200/220V AC (240V AC maximum)

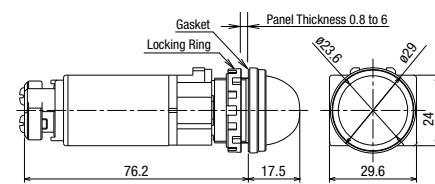
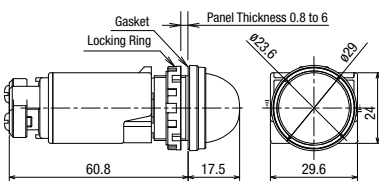
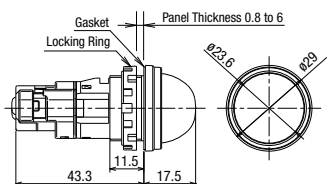
110V DC, 380V AC minimum

**Extended** Terminal screws: M3.5, integrated terminal cover

6, 12, 24V AC/DC, Without LED lamp

100/110V AC, 200/220V AC (240V AC maximum)

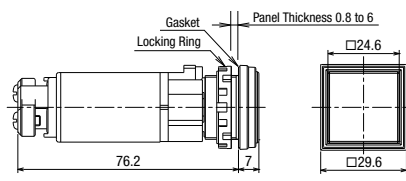
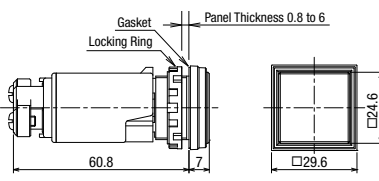
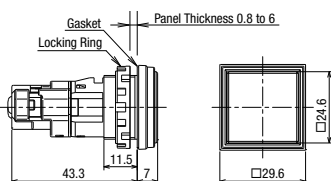
110V DC, 380V AC minimum

**Square Flush** Terminal screws: M3.5, integrated terminal cover

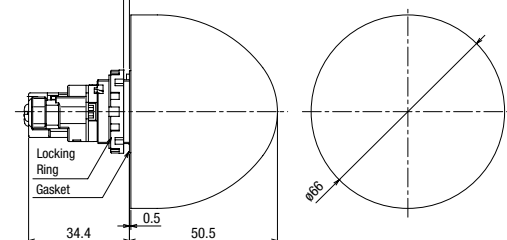
6, 12, 24V AC/DC, Without LED lamp

100/110V AC, 200/220V AC (240V AC maximum)

110V DC, 380V AC minimum

**Jumbo Dome Pilot Light** Terminal screws: M3.5, integrated terminal cover

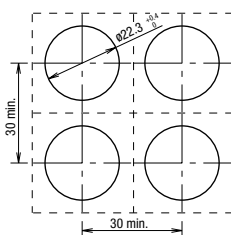
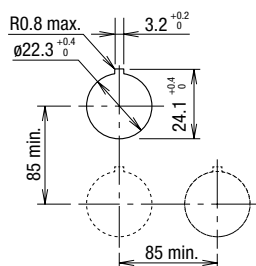
Panel Thickness 1 to 5



## Panel Cut-Out

**Mounting Centers**  
(Except jumbo dome)

Close mounting on 30 mm centers

**Mounting Centers**  
(Jumbo dome)

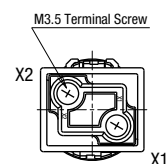
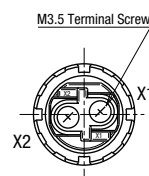
When mounting 100/110V AC, 200/220V AC, 110V DC units on 30mm centers vertically and horizontally, keep the ambient temperature below 40°C.

Determine the minimum mounting centers in consideration of convenience for wiring.

## Pilot Light Bottom View

6, 12, 24V AC/DC  
Without LED lamp

100/110V AC, 200/220V, 110V DC



- For DC-DC Converter types, terminal X1 is ⊕, X2 is ⊖.
- See **B-228** for wiring.