

Transformer Contact Assemblies

For use with Illuminated Pushbuttons.

Style	Contacts	Part Number
120V AC with LED	1NO	HW-FL10H2-Ⓞ
	2NO	HW-FL20H2-Ⓞ
	1NC	HW-FL01H2-Ⓞ
	1NO/1NC	HW-FL11H2-Ⓞ
240V AC with LED	1NO	HW-FL10M4-Ⓞ
	2NO	HW-FL20M4-Ⓞ
	1NC	HW-FL01M4-Ⓞ
	1NO/1NC	HW-FL11M4-Ⓞ
480V AC with LED	1NO	HW-FL10T8-Ⓞ
	2NO	HW-FL20T8-Ⓞ
	1NC	HW-FL01T8-Ⓞ
	1NO/1NC	HW-FL11T8-Ⓞ
120V AC with Incandescent	1NO	HW-FL10H2
	2NO	HW-FL20H2
	1NC	HW-FL01H2
	1NO/1NC	HW-FL11H2
240V AC with Incandescent	1NO	HW-FL10M4
	2NO	HW-FL20M4
	1NC	HW-FL01M4
	1NO/1NC	HW-FL11M4

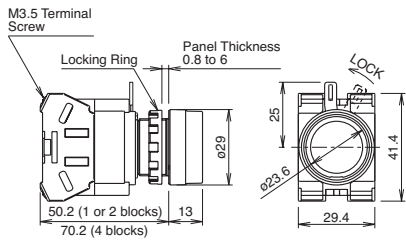


- 1. In place of Ⓞ, specify the LED Color Code.
Ⓞ = A, G, R, S, W or Y
- 2. 6V LED or incandescent lamp included.

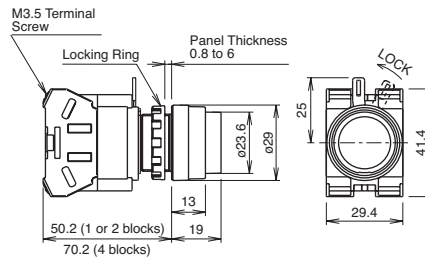
Dimensions (mm)

Non-illuminated Pushbuttons

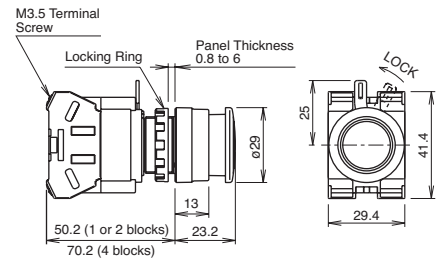
Flush (HW1B-M1, -A1)



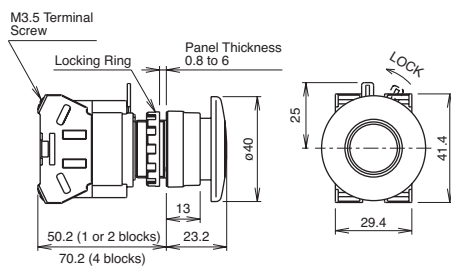
Extended (HW1B-M2, -A2)



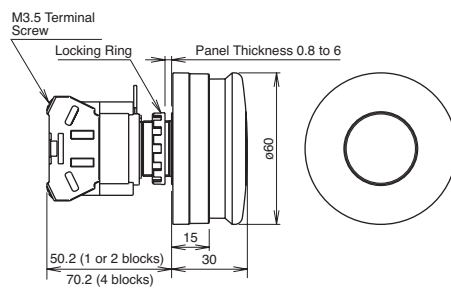
ø29mm Mushroom (HW1B-M3 -A3)



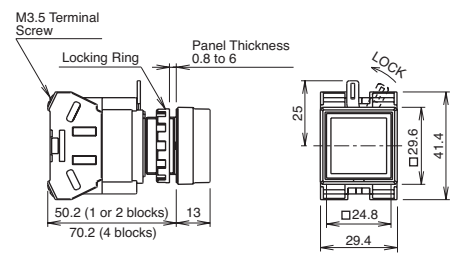
ø40mm Mushroom (HW1B-M4, -A4)



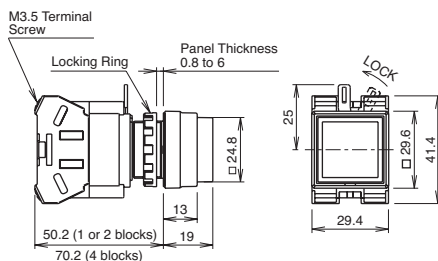
ø60mm Mushroom (HW1B-M5)



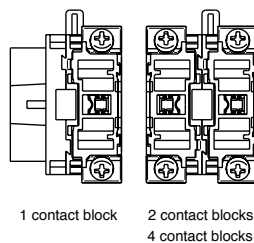
Square Flush (HW2B-M1, -A1)



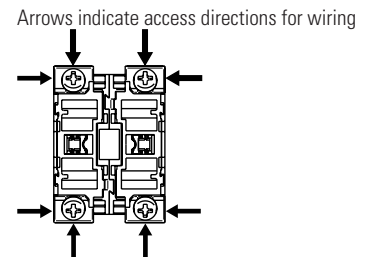
Square Extended (HW2B-M2, -A2)



Contact Block (Bottom View)



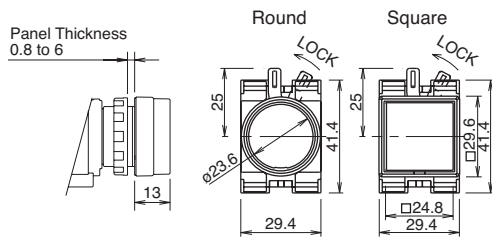
Terminal Wiring



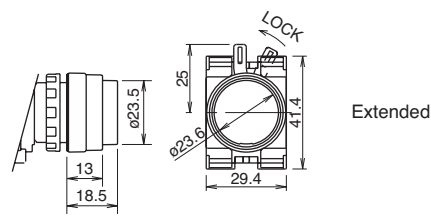
Dimensions (mm)

Operators

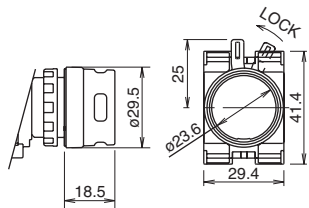
Flush (Round & Square)



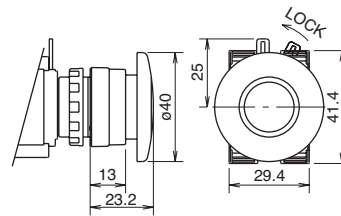
Extended



Extended with Full Shroud

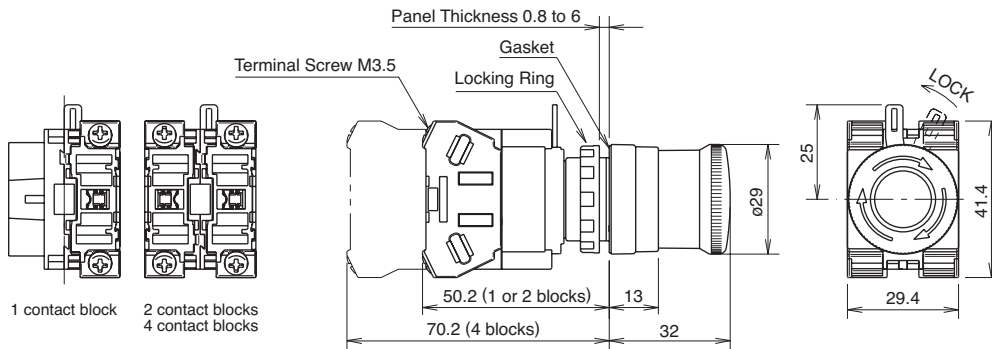


ø40mm Mushroom



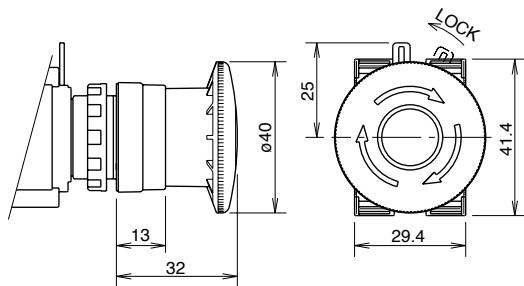
Emergency Stop Pushbuttons

ø29mm Head Pushlock Turn Reset (HW1B-V3)

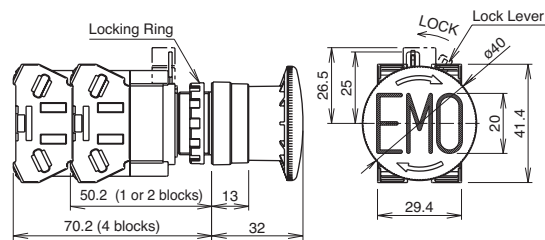


Dimensions (mm)

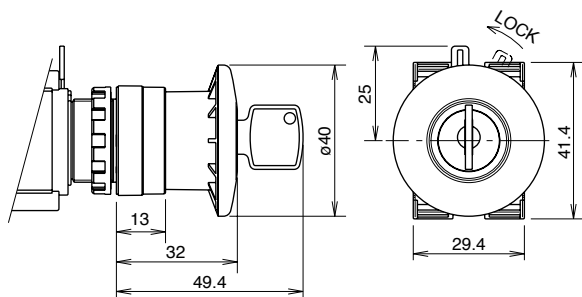
ø40mm Head Pushlock Turn Reset (HW1B-V4)



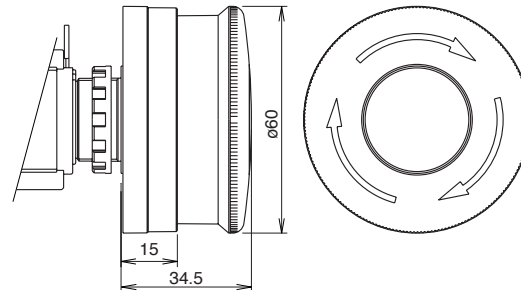
ø40mm Head EMO Pushlock Turn Reset (HW1B-V4)



ø40mm Head Pushlock Key Reset (HW1B-X4)



ø60mm Head Pushlock Turn Reset (HW1B-V5)



Switches & Pilot Lights

Display Lights

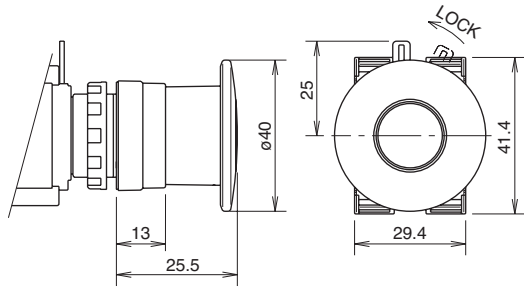
Relays & Sockets

Timers

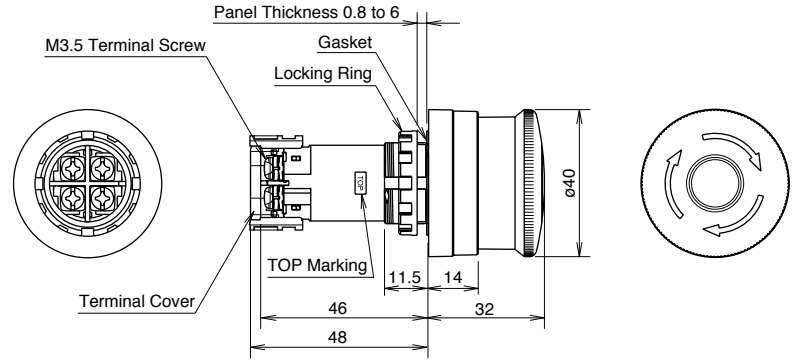
Terminal Blocks

Circuit Breakers

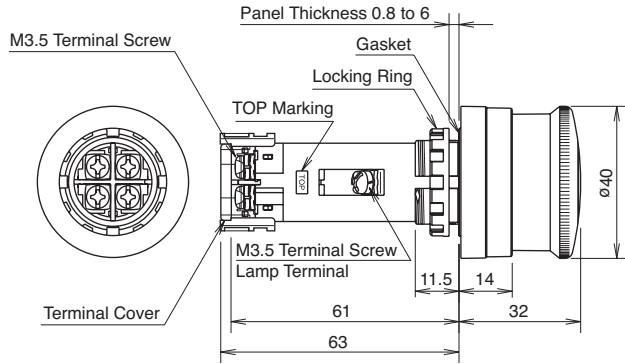
ø40mm Head Push-Pull (HW1B-Y2)



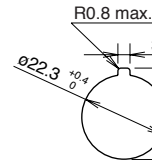
ø40mm Head Unibody Pushlock Turn Reset (HW1B-BV4)



Illuminated E-Stop Pushbuttons (HW1E-LV4)



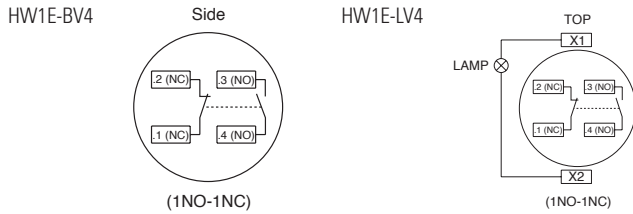
Mounting Hole



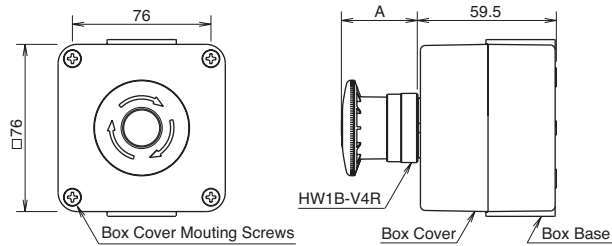
The minimum mounting centers shown below are applicable to E-Stop switches with one layer of contact blocks (two contact blocks). When two layers of contact blocks are mounted, determine the minimum mounting centers for ease of wiring.

Unit	Vertical Spacing	Horizontal Spacing
HW1B-V3 HW1B-V4 HW1B-X4 HW1B-Y2	50 mm	50 mm
HW1B-V5	60 mm	60 mm

Terminal Arrangement (Bottom View)

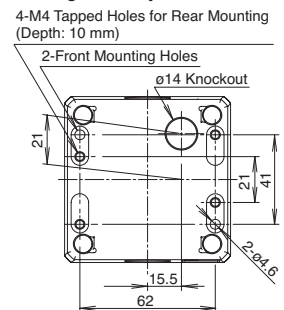


Emergency Stop Stations



Operator	Dimension A (mm)
Pushlock Turn Reset	32
Pushlock Key Reset	32 (Key inserted: 49.4)
Push Pull	25.5

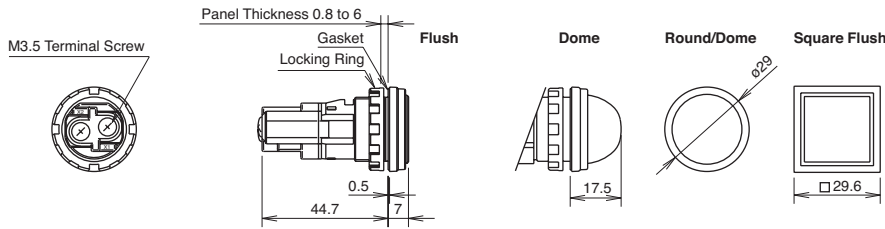
Mounting Hole Layout



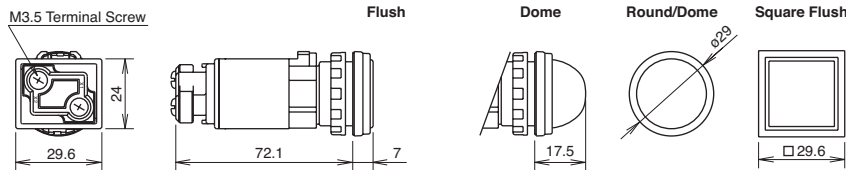
Dimensions (mm)

Pilot Lights

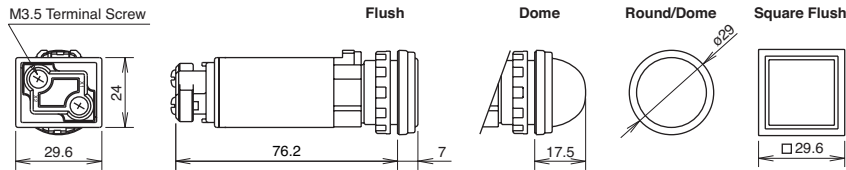
Full Voltage



Transformer

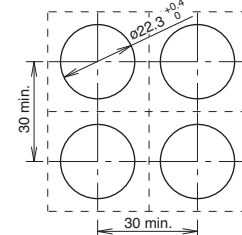


DC-DC Converter



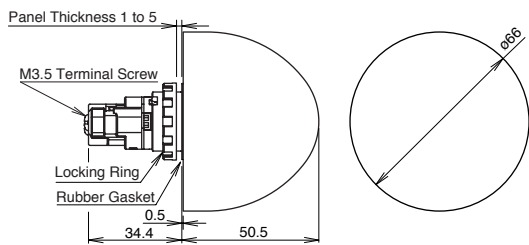
Mounting Hole Layout

Close mounting on 30mm centers
Degree of protection: IP65

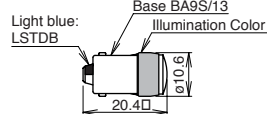


When mounting transformer or DC-DC converter type units on 30mm centers vertically and horizontally, keep the ambient temperature below 40°C.

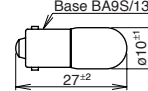
Jumbo Dome Pilot Lights



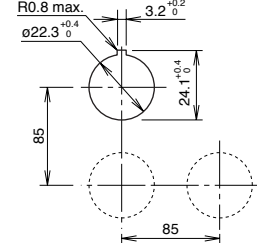
LED Lamp LSTDB



Incandescent Lamp LSB



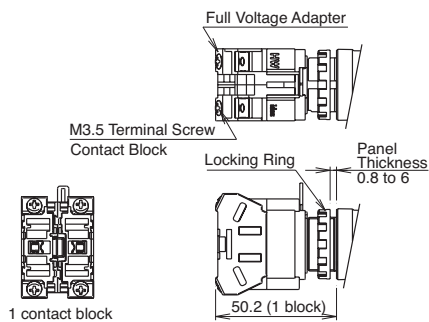
Mounting Hole Layout



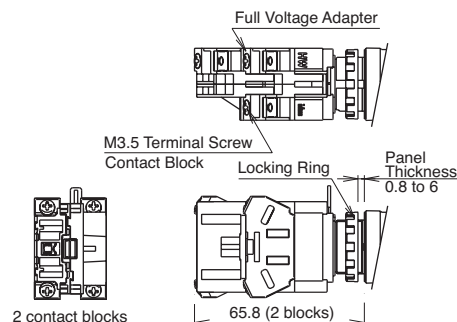
Illuminated Pushbuttons

Full Voltage Models

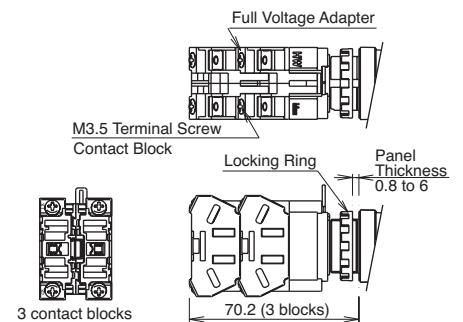
1 Contact Block



2 Contact Blocks



3 Contact Blocks



Switches & Pilot Lights

Display Lights

Relays & Sockets

Timers

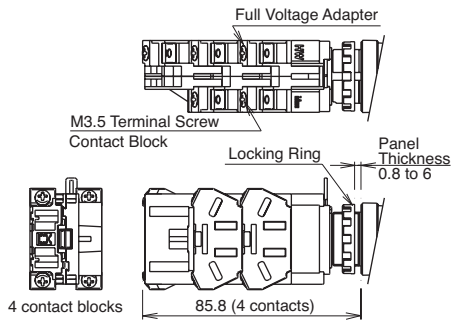
Terminal Blocks

Circuit Breakers

Dimensions (mm)

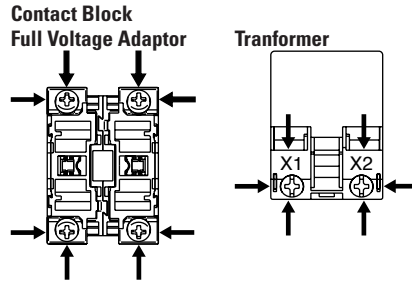
Illuminated Pushbuttons con't

4 Contact Blocks

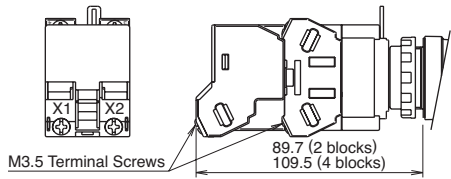


Terminal Wiring

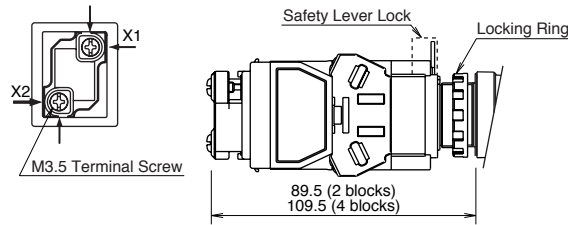
Arrows indicate access directions for wiring.



Transformer Models



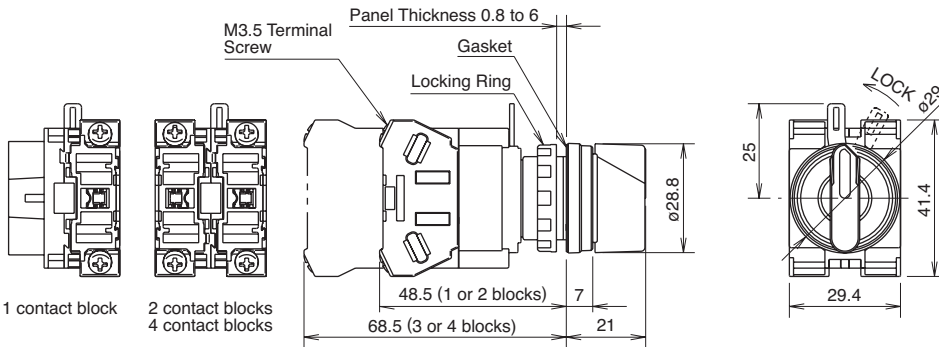
DC-DC Converter Models



Non-illuminated Selector & Key Switches

Dimensions (mm)

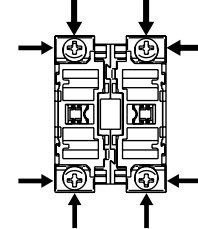
Knob Operator



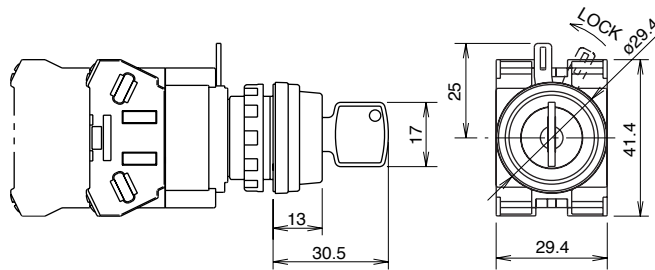
Terminal Wiring

Arrows indicate access directions for wiring.

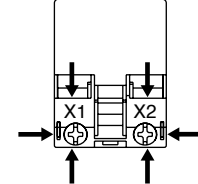
Contact Block Full Voltage Adaptor



Key Operator

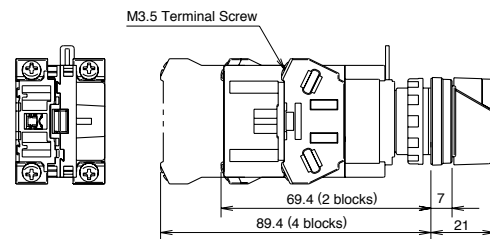


Transformer

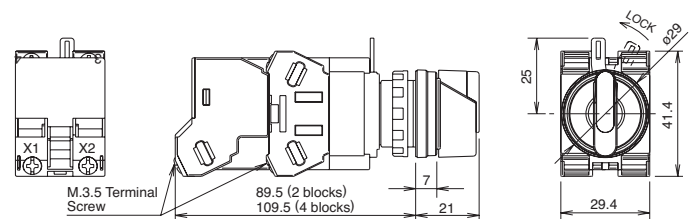


Illuminated Selector Switches

Full Voltage Model



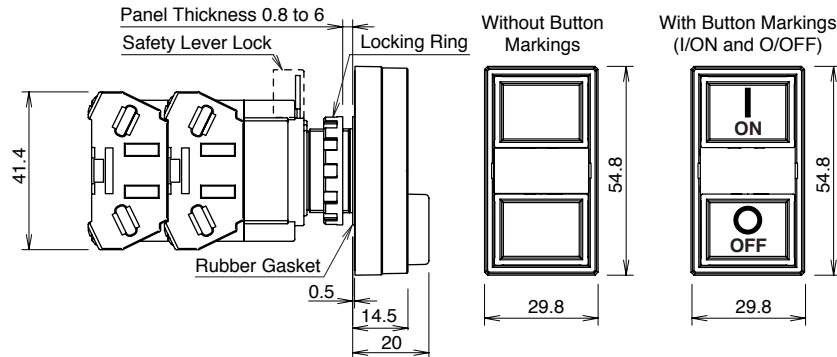
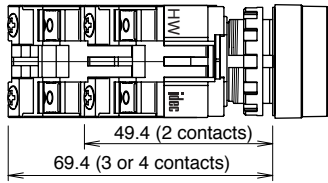
Transformer Model



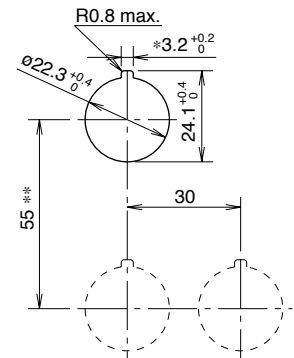
Dimensions (mm)

Dual Pushbutton

Without Pilot Light



Mounting Hole Layout



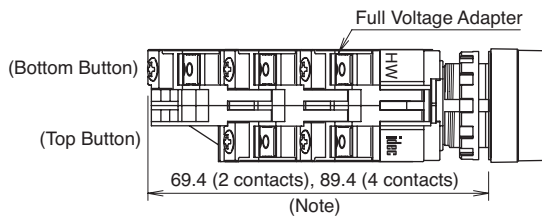
-The 3.2 mm recess is for preventing rotation and is not necessary when a nameplate or anti-rotation ring is not used.

-When using the safety lever lock, determine the vertical spacing in consideration of convenience for installing and removing the safety lever lock.

-Recommended vertical spacing: 100 mm
 -The minimum mounting centers are applicable to switches with one layer of contact blocks (two contact blocks). When two layers of contact blocks are mounted, determine the minimum mounting centers for ease of wiring.

With Pilot Light

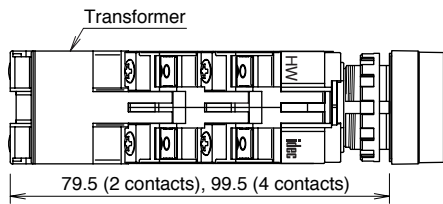
Full Voltage



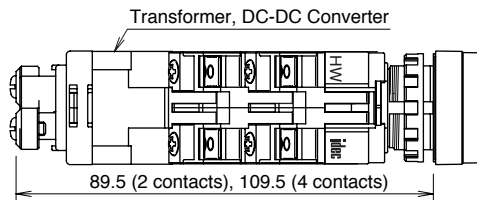
The depth of a 3-contact model depends on the combination of contact blocks at top and bottom pushbuttons.

Top Button	1 contact block	2 contact blocks
Bottom Button	2 contact blocks	1 contact block
Depth	89.4 mm	69.4 mm

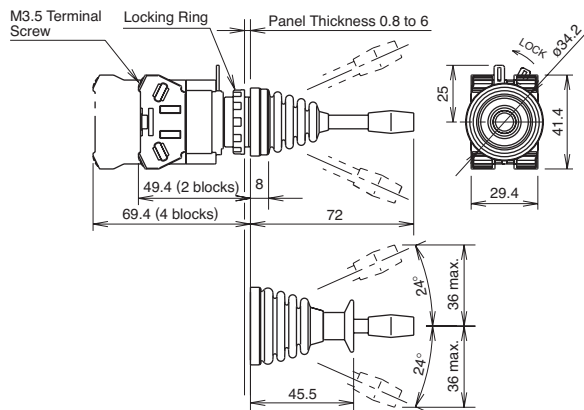
Transformer (240V minimum)



Transformer (480V)



Monolever



Dimensions (mm)

Switches & Pilot Lights

Display Lights

Relays & Sockets

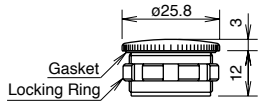
Timers

Terminal Blocks

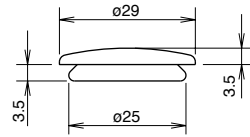
Circuit Breakers

Accessory Dimensions

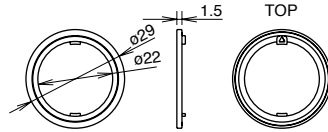
LW9Z-BM
Metallic Mounting Hole Plug



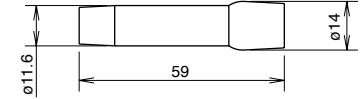
OB-31
Rubber Mounting Hole Plug



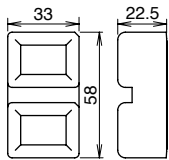
HW9Z-RL
Anti-Rotation Ring



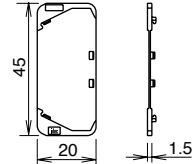
OR-55
Lamp/LED Removal Tool



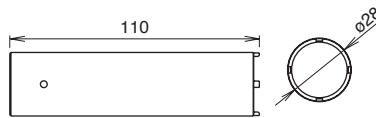
HW9Z-D7D
Dual Pushbutton Rubber Cover



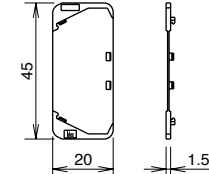
HW-VG1
Dual Pushbutton Barrier



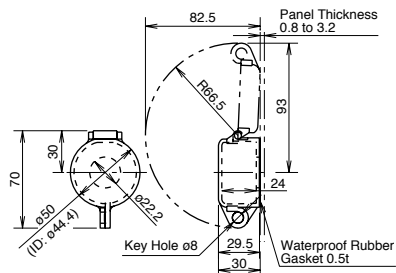
MW9Z-T1
Locking Ring Wrench



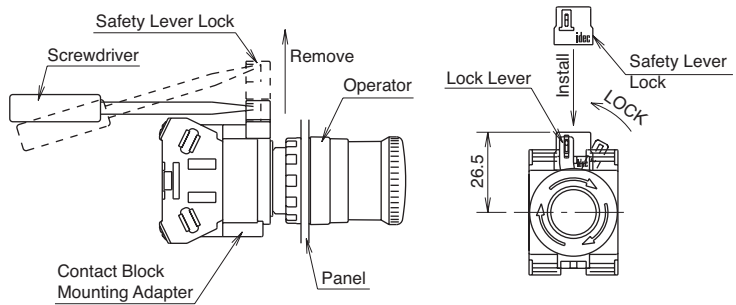
HW-VL1
Barrier



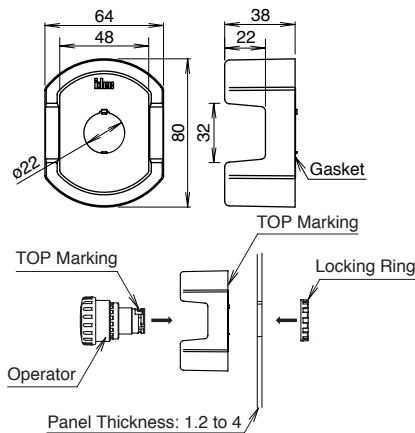
HW9Z-KL1
Padlock Cover



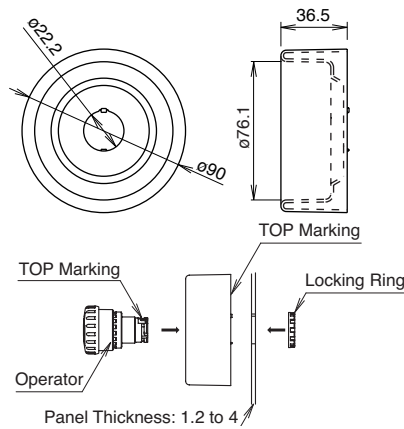
HWLS-TK1971
Safety Lever Lock



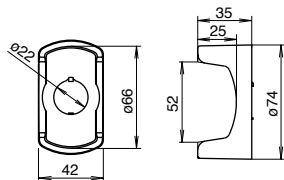
HW9Z-KG1



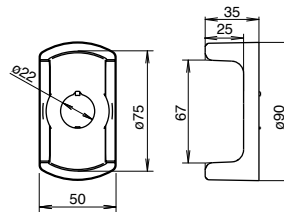
HW9Z-KG2



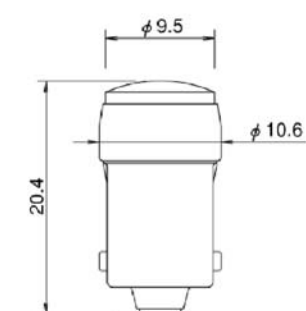
HW9Z-KG3



HW9Z-KG4



LSTD



Switches & Pilot Lights

Display Lights

Relays & Sockets

Timers

Terminal Blocks

Circuit Breakers