

Think Automation and beyond...



∅22mm

# YW Series Control Units



IDEC CORPORATION





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PHƯƠNG LAI



# CÔNG TY TNHH PHƯƠNG LAI

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# Innovative Design, Space-Saving, Safety, and Self-Cleaning Contacts

## Emergency Stop Switches

### Satisfy International Standards

#### • Safety Lock Mechanism

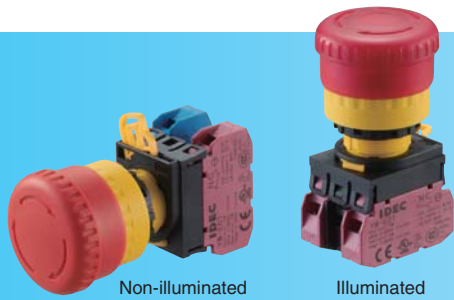
When the emergency stop signal has been generated during actuation of the emergency stop device, the emergency stop function shall be maintained until the emergency stop device is reset (disengaged) (IEC 60947-5-5, 6.2).

#### • Direct Opening Action

Even if the contacts are welded, NC contacts are forced to open and break the circuit (compliant to IEC 60947-5-1, Annex K, IEC 60947-5-5, 5.2).

#### • Safe Pushbutton Design

The pushbutton is designed to ensure that an object cannot become trapped between the mushroom button and the panel, disabling the button operation. In addition, the pushbutton is designed to prevent removal from the front of the panel (IEC 60947-5-5, 6.3.2).



### Easy Operation

#### • Push-to-lock, Pull/Turn-to-release

YW emergency stop switches can be unlatched by either pulling or turning the operator.

Unlatching by pulling



Unlatching by turning



## Unibody Pilot Lights

### Higher Brightness

Unibody pilot lights achieve high brightness.

### Short Depth behind the Panel

Measures only 42mm depth behind the panel.

### Four Lens Shapes

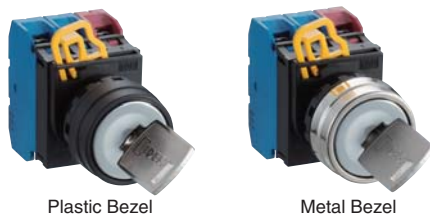
Flush, flush with marking, extended, and dome.

### Panel Mounting

Unibody pilot lights can be mounted on panels by tightening the locking ring.



## Key Selector Switches



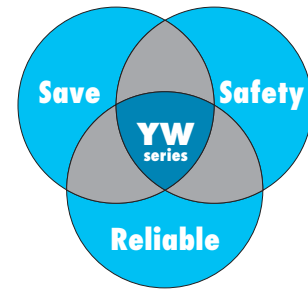
### A variety of operations, key removal positions, and circuits.

Wide range adds more options to choose from.



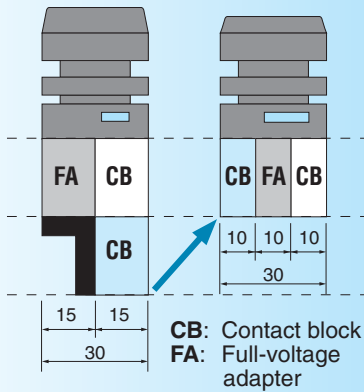
# Safety

Integrated Finger-safe Terminal Cover  
 Degree of Protection: IP20  
 (From panel front: IP65)



# Save

New Contact Block Design  
 YW series



The contact block design reduces the depth behind the panel.

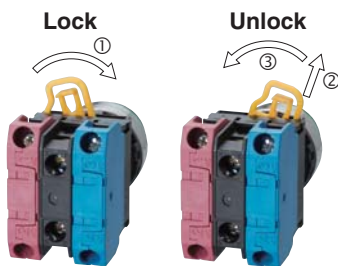


Metal bezels are available for pushbuttons, illuminated pushbuttons, selector switches, and key selector switches.



# Reliable

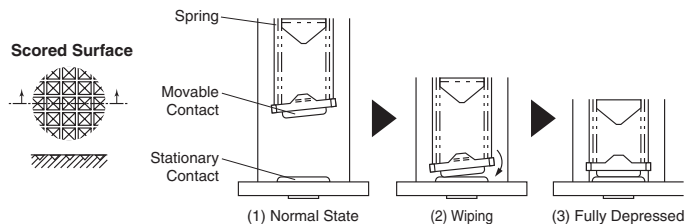
Retained Locking Lever



An innovative plastic locking lever is retained and eliminates the need for a separate lever lock.

Heavy-Duty Rugged Construction

Self-Cleaning Wiping-Action Contacts with Scored Contact Surfaces





# YW series Control Units

## Space-saving, 10-mm-thick contact blocks. Removable operator.

- Compact and light-weight
- IP20 finger-safe screw terminals (IEC 60529)
- Emergency stop switches feature safety lock mechanism, direct opening action, and safe pushbutton design.
- Separate contact block makes installation and removal easy. Pilot lights feature a large lens for a wide viewing angle.
- Matted surfaces on the buttons, lenses, and bezels reduce reflection of ambient light.
- UL, c-UL listed, EN compliant, and CCC approved.



- UL508, CSA C22.2 No. 14, EN 60947-1, EN 60947-5-1, EN 60947-5-5, GB 14048.5



### Contact Ratings (Contact Block)

Rated Insulation Voltage		600V			
Rated Thermal Current		10A			
Operating Voltage		24V	120V	240V	380V
AC 50/60 Hz	Resistive Load (AC-12)	10A	10A	6A	2A
	Inductive Load (AC-15)	10A	6A	3A	1.9A
DC	Resistive Load (DC-12)	8A	2.2A	1.1A	—
	Inductive Load (DC-13)	4A	1.1A	0.55A	—

### LED Lamp Ratings

Part No.	Rated Voltage	Rated Current	Color Code
LSED-6②	6V AC/DC	10 mA (A, R, Y) 7 mA (G, PW, S)	A: amber G: green PW: pure white R: red S: blue Y: yellow
LSED-1②	12V AC/DC	14 mA (A, R, Y) 13 mA (G, PW, S)	
LSED-2②	24V AC/DC	14 mA (A, R, Y) 13 mA (G, PW, S)	
LSED-H②	110/120V AC/DC	5 mA	
LSED-M3②	230/240V AC/DC	3 mA	

Note: Specify a color code in place of ② in the Part No.  
Yellow LED lamps are used for white illumination of pilot lights and illuminated pushbuttons.

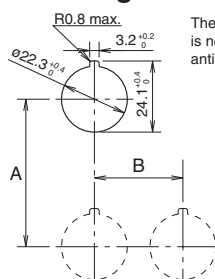
### Incandescent Lamp Ratings

Part No.	Rated Voltage	Ratings
LS-T6	6V AC/DC	6.3V 1W
LS-T8	12V AC/DC	18V 1W
LS-T3	24V AC/DC	30V 1W

### Unibody Pilot Light Ratings

Rated Voltage	Illumination Color	Rated Current
6V AC/DC	A, R, W, Y	16 mA
	G, PW, S	13 mA
12V AC/DC	A, G, PW, R, S, W, Y	20 mA
24V AC/DC		
100/110V AC		
230/240V AC		

### Mounting Hole Layout



The 3.2-mm-wide key recess is necessary when the anti-rotation ring is used.

Unit	A (mm)	B (mm)
Emergency stop switch	50 min.	50 min.
Pushbutton		
Selector switch	50 min.	30 min.
Key selector switch		
Mushroom pushbutton	50 min.	40 min.
Pilot light (with removable contact block)	30 min.*	30 min.
Pilot light (unibody)	50 min.	30 min.

\* Keep a minimum spacing of 50 mm when using a lamp of over 1W.

### Specifications



Operating Conditions	Operating temperature: -20 to +55°C (no freezing) Operating humidity: 45 to 85% RH (no condensation) Storage temperature: -45 to +80°C Storage humidity: 95% RH maximum
Degree of Protection	From panel front: IP65 (IEC 60529) Terminal: IP20 (IEC 60529)
Insulation Resistance	100 MΩ
Dielectric Strength	Contact block: 2,500V, 1 minute Pilot light: 2,000V, 1 minute
Vibration Resistance	<Emergency stop switch> Operating extremes / Damage limits: 10 to 500 Hz, amplitude 0.35 mm, acceleration 50 m/s <sup>2</sup> (5G) <Pushbutton, pilot light, illuminated pushbutton, selector switch, and key selector switch> Operating extremes: 5 to 55 Hz, amplitude 0.5 mm Damage limits: 30 Hz, amplitude 1.5 mm
Shock Resistance	<Emergency stop switch> Operating extremes: 150 m/s <sup>2</sup> (10G) Damage limits: 1,000 m/s <sup>2</sup> (100G) <Pushbutton, pilot light, illuminated pushbutton, selector switch, and key selector switch> Operating extremes: 100 m/s <sup>2</sup> (10G) Damage limits: 1,000 m/s <sup>2</sup> (100G)
Mechanical Life (minimum operations)	<Emergency stop switch> 250,000 (single contact block) <Pushbutton and illuminated pushbutton> Momentary: 5,000,000 (single contact block) 1,000,000 (double contact block) Maintained: 250,000 (single contact block) 100,000 (double contact block) <Selector switch and key selector switch> 250,000 (single contact block) 100,000 (double contact block)
Electrical Life (minimum operations)	<Emergency stop switch> 100,000 (single contact block) <Pushbutton, selector switch, and key selector switch> 100,000 (single contact block) 50,000 (double contact block)

# YW Series Emergency Stop Switches ø22

Emergency Stop Switches

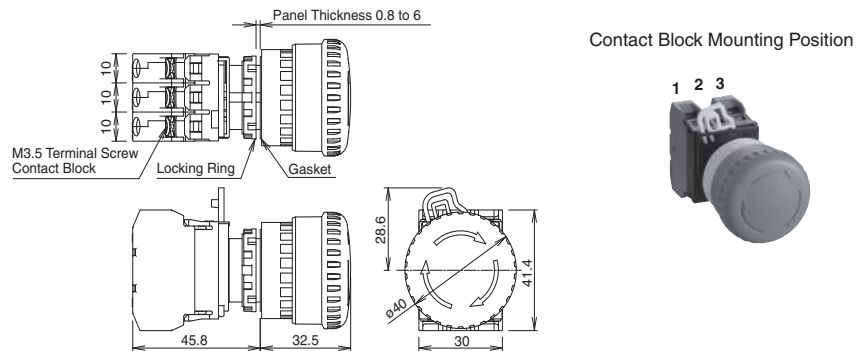
## Emergency Stop Switches (Pushlock Pull/Turn Reset)

Package Quantity: 1

Style	Contact	Contact Block Mounting Position			Part No.	Button Color Code
		1	2	3		
 	1NC	—	—	NC	YW1B-V4E01R	Red only
	2NC	NC	—	NC	YW1B-V4E02R	
	3NC	NC	NC	NC	YW1B-V4E03R	
	1NO-1NC	NO	—	NC	YW1B-V4E11R	
	1NO-2NC	NO	NC	NC	YW1B-V4E12R	
	2NO-1NC	NO	NC	NO	YW1B-V4E21R	



• When pressed, the button is locked in the depressed position, and is reset when either pulled or turned clockwise.

### Dimensions



## Illuminated Emergency Stop Switches (Pushlock Pull/Turn Reset)

Package Quantity: 1

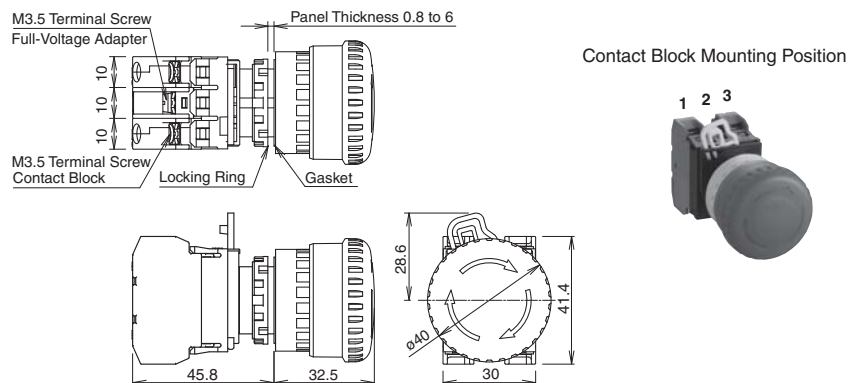
Style	Lamp	Contacts	Contact Block Mounting Position			Part No.	③ Operating Voltage Code	Lens Color Code
			1	2	3			
 	Without Lamp	1NC	—	FA	NC	YW1L-V4E01Q0R	0: without lamp 250V AC/DC max.	Red only
		2NC	NC	FA	NC	YW1L-V4E02Q0R		
		1NO-1NC	NO	FA	NC	YW1L-V4E11Q0R		
	LED	1NC	—	FA	NC	YW1L-V4E01Q③R	2: 6V AC/DC 3: 12V AC/DC 4: 24V AC/DC H: 110/120V AC/DC M3: 230/240V AC/DC	
		2NC	NC	FA	NC	YW1L-V4E02Q③R		
		1NO-1NC	NO	FA	NC	YW1L-V4E11Q③R		
	Incandescent	1NC	—	FA	NC	YW1L-V4E01Q③R	5: 6V AC/DC 6: 12V AC/DC 7: 24V AC/DC	
		2NC	NC	FA	NC	YW1L-V4E02Q③R		
		1NO-1NC	NO	FA	NC	YW1L-V4E11Q③R		

• Specify an operating voltage code in place of ③ in the Part No.

FA: Full voltage adapter

• When pressed, the button is locked in the depressed position, and is reset when either pulled or turned clockwise.

### Dimensions



Pushbuttons

Pilot Lights

Illuminated Pushbuttons

Selector Switches







Key Selector Switches



# ø22 YW Series Pushbuttons

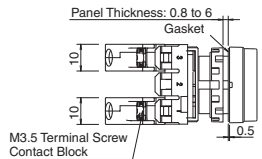
## Pushbuttons with Plastic Bezel

Package Quantity: 1

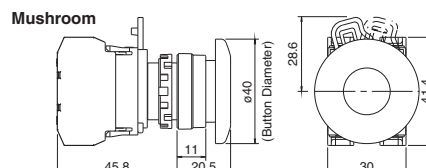
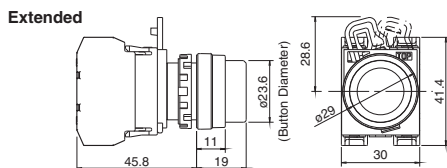
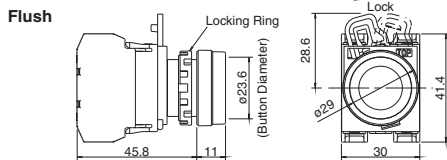
Shape	Operation	Contact	Contact Block Mounting Position			Part No.	① Button Color Code			
			1	2	3					
 	Momentary	1NO	NO	—	—	YW1B-M1E10①	B: black G: green R: red S: blue W: white Y: yellow			
		1NC	—	—	NC	YW1B-M1E01①				
		2NO	NO	—	NO	YW1B-M1E20①				
		2NC	NC	—	NC	YW1B-M1E02①				
		1NO-1NC	NO	—	NC	YW1B-M1E11①				
		3NO	NO	NO	NO	YW1B-M1E30①				
		3NC	NC	NC	NC	YW1B-M1E03①				
	Maintained	2NO-1NC	NO	NC	NO	YW1B-M1E21①				
		1NO-2NC	NO	NC	NC	YW1B-M1E12①				
		1NO	NO	—	—	YW1B-A1E10①				
		1NC	—	—	NC	YW1B-A1E01①				
		2NO	NO	—	NO	YW1B-A1E20①				
		2NC	NC	—	NC	YW1B-A1E02①				
		1NO-1NC	NO	—	NC	YW1B-A1E11①				
 	Momentary	1NO	NO	—	—	YW1B-M2E10①	B: black G: green R: red S: blue W: white Y: yellow			
		1NC	—	—	NC	YW1B-M2E01①				
		2NO	NO	—	NO	YW1B-M2E20①				
		2NC	NC	—	NC	YW1B-M2E02①				
		1NO-1NC	NO	—	NC	YW1B-M2E11①				
	Maintained	1NO	NO	—	—	YW1B-A2E10①				
		1NC	—	—	NC	YW1B-A2E01①				
		2NO	NO	—	NO	YW1B-A2E20①				
		2NC	NC	—	NC	YW1B-A2E02①				
		1NO-1NC	NO	—	NC	YW1B-A2E11①				
		 	Momentary	1NO	NO	—		—	YW1B-M4E10①	B: black G: green R: red S: blue W: white Y: yellow
				1NC	—	—		NC	YW1B-M4E01①	
				2NO	NO	—		NO	YW1B-M4E20①	
				2NC	NC	—		NC	YW1B-M4E02①	
Maintained	1NO-1NC		NO	—	NC	YW1B-M4E11①				
	1NO		NO	—	—	YW1B-A4E10①				
	1NC		—	—	NC	YW1B-A4E01①				
	2NO		NO	—	NO	YW1B-A4E20①				
	2NC		NC	—	NC	YW1B-A4E02①				
1NO-1NC	NO	—	NC	YW1B-A4E11①						

Note: Specify a button color code in place of ① in the Part No.

### Dimensions



Contact Block Mounting Position









All dimensions in mm.

# YW Series Pushbuttons ø22

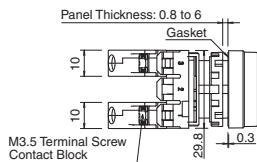
## Pushbuttons with Metal Bezel

Package Quantity: 1

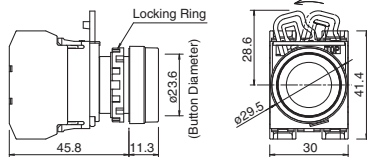
Shape	Operation	Contact	Contact Block Mounting Position			Part No.	① Button Color Code			
			1	2	3					
 	Momentary	1NO	NO	—	—	YW4B-M1E10①	B: black G: green R: red S: blue W: white Y: yellow			
		1NC	—	—	NC	YW4B-M1E01①				
		2NO	NO	—	NO	YW4B-M1E20①				
		2NC	NC	—	NC	YW4B-M1E02①				
		1NO-1NC	NO	—	NC	YW4B-M1E11①				
		3NO	NO	NO	NO	YW4B-M1E30①				
		3NC	NC	NC	NC	YW4B-M1E03①				
	Maintained	2NO-1NC	NO	NC	NO	YW4B-M1E21①				
		1NO-2NC	NO	NC	NC	YW4B-M1E12①				
		1NO	NO	—	—	YW4B-A1E10①				
		1NC	—	—	NC	YW4B-A1E01①				
		2NO	NO	—	NO	YW4B-A1E20①				
		2NC	NC	—	NC	YW4B-A1E02①				
		1NO-1NC	NO	—	NC	YW4B-A1E11①				
 	Momentary	1NO	NO	—	—	YW4B-M2E10①	B: black G: green R: red S: blue W: white Y: yellow			
		1NC	—	—	NC	YW4B-M2E01①				
		2NO	NO	—	NO	YW4B-M2E20①				
		2NC	NC	—	NC	YW4B-M2E02①				
		1NO-1NC	NO	—	NC	YW4B-M2E11①				
	Maintained	1NO	NO	—	—	YW4B-A2E10①				
		1NC	—	—	NC	YW4B-A2E01①				
		2NO	NO	—	NO	YW4B-A2E20①				
		2NC	NC	—	NC	YW4B-A2E02①				
		1NO-1NC	NO	—	NC	YW4B-A2E11①				
		 	Momentary	1NO	NO	—		—	YW4B-M4E10①	B: black G: green R: red S: blue W: white Y: yellow
				1NC	—	—		NC	YW4B-M4E01①	
				2NO	NO	—		NO	YW4B-M4E20①	
				2NC	NC	—		NC	YW4B-M4E02①	
Maintained	1NO-1NC		NO	—	NC	YW4B-M4E11①				
	1NO		NO	—	—	YW4B-A4E10①				
	1NC		—	—	NC	YW4B-A4E01①				
	2NO		NO	—	NO	YW4B-A4E20①				
	2NC		NC	—	NC	YW4B-A4E02①				
1NO-1NC	NO	—	NC	YW4B-A4E11①						

Note: Specify a button color code in place of ① in the Part No.

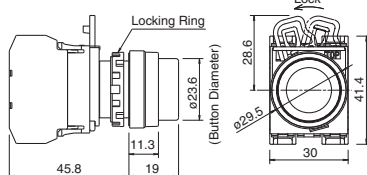
### Dimensions



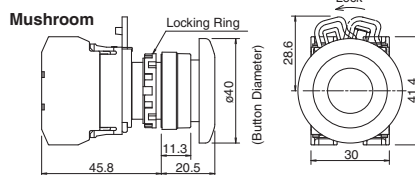
#### Flush



#### Extended



#### Mushroom



Contact Block Mounting Position











All dimensions in mm.



# ø22 YW Series Pilot Lights

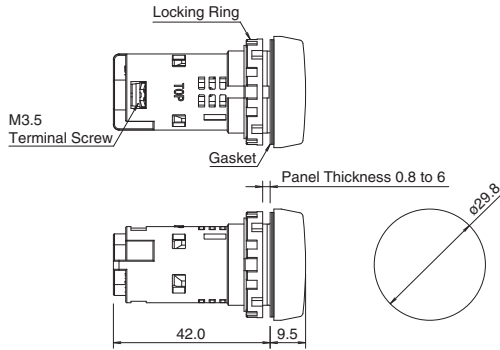
## Pilot Lights (Unibody)

Package Quantity: 1

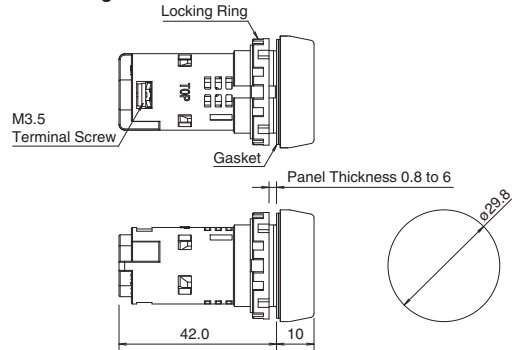
Shape	Lamp	Operating Voltage	Part No.	② Lens Color Code
Flush Full Voltage  	LED	6V AC/DC	<b>YW1P-1UQ2</b> ②	A: amber G: green PW: pure white R: red S: blue W: white Y: yellow
		12V AC/DC	<b>YW1P-1UQ3</b> ②	
		24V AC/DC	<b>YW1P-1UQ4</b> ②	
		100/110V AC	<b>YW1P-1UQH</b> ②	
		230/240V AC	<b>YW1P-1UQM3</b> ②	
Flush Marking Full Voltage  	LED	6V AC/DC	<b>YW1P-1BUQ2</b> ②	
		12V AC/DC	<b>YW1P-1BUQ3</b> ②	
		24V AC/DC	<b>YW1P-1BUQ4</b> ②	
		100/110V AC	<b>YW1P-1BUQH</b> ②	
		230/240V AC	<b>YW1P-1BUQM3</b> ②	
Extended Full Voltage  	LED	6V AC/DC	<b>YW1P-2TUQ2</b> ②	
		12V AC/DC	<b>YW1P-2TUQ3</b> ②	
		24V AC/DC	<b>YW1P-2TUQ4</b> ②	
		100/110V AC	<b>YW1P-2TUQH</b> ②	
		230/240V AC	<b>YW1P-2TUQM3</b> ②	
Dome Full Voltage  	LED	6V AC/DC	<b>YW1P-2UQ2</b> ②	
		12V AC/DC	<b>YW1P-2UQ3</b> ②	
		24V AC/DC	<b>YW1P-2UQ4</b> ②	
		100/110V AC	<b>YW1P-2UQH</b> ②	
		230/240V AC	<b>YW1P-2UQM3</b> ②	

## Dimensions

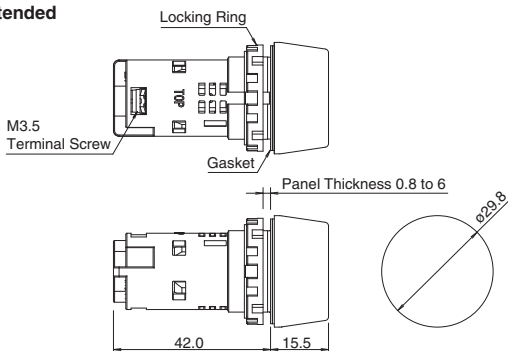
### Flush



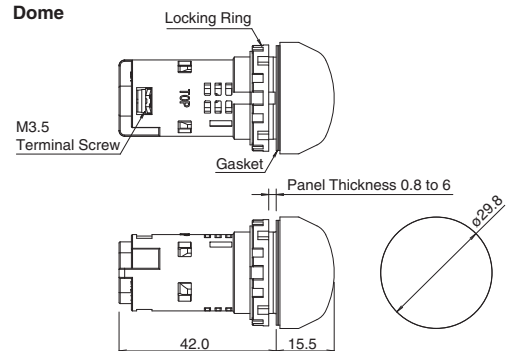
### Flush Marking



### Extended



### Dome











All dimensions in mm.

# YW Series Pilot Lights ø22

## Pilot Lights (with Removable Contact Block)

Package Quantity: 1

Shape	Lamp	Operating Voltage	Part No.	② Lens Color Code
  	Without Lamp	250V AC/DC max.	<b>YW1P-1EQ0</b> ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow)
	LED	6V AC/DC	<b>YW1P-1EQ2</b> ②	A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow) Built-in LED lamp: LSED-3②
		12V AC/DC	<b>YW1P-1EQ3</b> ②	
		24V AC/DC	<b>YW1P-1EQ4</b> ②	
		110/120V AC/DC	<b>YW1P-1EQH</b> ②	
		230/240V AC/DC	<b>YW1P-1EQM3</b> ②	
	Incandescent	6V AC/DC	<b>YW1P-1EQ5</b> ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T③
		12V AC/DC	<b>YW1P-1EQ6</b> ②	
		24V AC/DC	<b>YW1P-1EQ7</b> ②	
  	LED	100/110V AC	<b>YW1P-1EH2</b> ②	A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow) Built-in LED lamp: LSED-6②
		200/220V AC	<b>YW1P-1EM2</b> ②	
		115/120V AC	<b>YW1P-1EH22</b> ②	
		230/240V AC	<b>YW1P-1EM42</b> ②	
	Incandescent	100/110V AC	<b>YW1P-1EH5</b> ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T6
		200/220V AC	<b>YW1P-1EM5</b> ②	
		115/120V AC	<b>YW1P-1EH25</b> ②	
		230/240V AC	<b>YW1P-1EM45</b> ②	
  	Without Lamp	250V AC/DC max.	<b>YW1P-1BEQ0</b> ②	A (amber), G (green), R (red), S (blue), W (white), Y (yellow)
	LED	6V AC/DC	<b>YW1P-1BEQ2</b> ②	A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow) Built-in LED lamp: LSED-3②
		12V AC/DC	<b>YW1P-1BEQ3</b> ②	
		24V AC/DC	<b>YW1P-1BEQ4</b> ②	
		110/120V AC/DC	<b>YW1P-1BEQH</b> ②	
		230/240V AC/DC	<b>YW1P-1BEQM3</b> ②	
	Incandescent	6V AC/DC	<b>YW1P-1BEQ5</b> ②	A (amber), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T③
		12V AC/DC	<b>YW1P-1BEQ6</b> ②	
		24V AC/DC	<b>YW1P-1BEQ7</b> ②	
  	LED	100/110V AC	<b>YW1P-1BEH2</b> ②	A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow) Built-in LED lamp: LSED-6②
		200/220V AC	<b>YW1P-1BEM2</b> ②	
		115/120V AC	<b>YW1P-1BEH22</b> ②	
		230/240V AC	<b>YW1P-1BEM42</b> ②	
	Incandescent	100/110V AC	<b>YW1P-1BEH5</b> ②	A (amber), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T6
		200/220V AC	<b>YW1P-1BEM5</b> ②	
		115/120V AC	<b>YW1P-1BEH25</b> ②	
		230/240V AC	<b>YW1P-1BEM45</b> ②	

Note: Specify a lens color code in place of ② in the Part No.  
Clear lenses are used for PW (pure white) illumination of pilot lights.

Emergency Stop Switches

Pushbuttons

Pilot Lights

Illuminated Pushbuttons

Selector Switches

Key Selector Switches



## ø22 YW Series Pilot Lights

Shape	Lamp	Operating Voltage	Part No.	② Lens Color Code	
Extended Full Voltage  	Without Lamp	250V AC/DC max.	<b>YW1P-2TEQ0</b> ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow)	
	LED	6V AC/DC	<b>YW1P-2TEQ2</b> ②	A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow) Built-in LED lamp: LSED-③②	
		12V AC/DC	<b>YW1P-2TEQ3</b> ②		
		24V AC/DC	<b>YW1P-2TEQ4</b> ②		
		110/120V AC/DC	<b>YW1P-2TEQH</b> ②		
	Incandescent	230/240V AC/DC	<b>YW1P-2TEQM3</b> ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T③	
		6V AC/DC	<b>YW1P-2TEQ5</b> ②		
		12V AC/DC	<b>YW1P-2TEQ6</b> ②		
		24V AC/DC	<b>YW1P-2TEQ7</b> ②		
	Extended Transformer  	LED	100/110V AC	<b>YW1P-2TEH2</b> ②	A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow) Built-in LED lamp: LSED-6②
200/220V AC			<b>YW1P-2TEM2</b> ②		
115/120V AC			<b>YW1P-2TEH22</b> ②		
230/240V AC			<b>YW1P-2TEM42</b> ②		
Incandescent		100/110V AC	<b>YW1P-2TEH5</b> ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T6	
		200/220V AC	<b>YW1P-2TEM5</b> ②		
		115/120V AC	<b>YW1P-2TEH25</b> ②		
		230/240V AC	<b>YW1P-2TEM45</b> ②		
Dome Full Voltage  		Without Lamp	250V AC/DC max.	<b>YW1P-2EQ0</b> ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow)
		LED	6V AC/DC	<b>YW1P-2EQ2</b> ②	A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow) Built-in LED lamp: LSED-③②
	12V AC/DC		<b>YW1P-2EQ3</b> ②		
	24V AC/DC		<b>YW1P-2EQ4</b> ②		
	110/120V AC/DC		<b>YW1P-2EQH</b> ②		
	Incandescent	230/240V AC/DC	<b>YW1P-2EQM3</b> ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T③	
		6V AC/DC	<b>YW1P-2EQ5</b> ②		
		12V AC/DC	<b>YW1P-2EQ6</b> ②		
		24V AC/DC	<b>YW1P-2EQ7</b> ②		
	Dome Transformer  	LED	100/110V AC	<b>YW1P-2EH2</b> ②	A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow) Built-in LED lamp: LSED-6②
200/220V AC			<b>YW1P-2EM2</b> ②		
115/120V AC			<b>YW1P-2EH22</b> ②		
230/240V AC			<b>YW1P-2EM42</b> ②		
Incandescent		100/110V AC	<b>YW1P-2EH5</b> ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T6	
		200/220V AC	<b>YW1P-2EM5</b> ②		
		115/120V AC	<b>YW1P-2EH25</b> ②		
		230/240V AC	<b>YW1P-2EM45</b> ②		

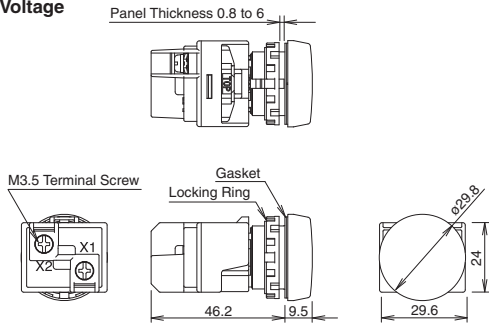
Note: Specify a lens color code in place of ② in the Part No.  
Clear lenses are used for PW (pure white) illumination of pilot lights.

# YW Series Pilot Lights ø22

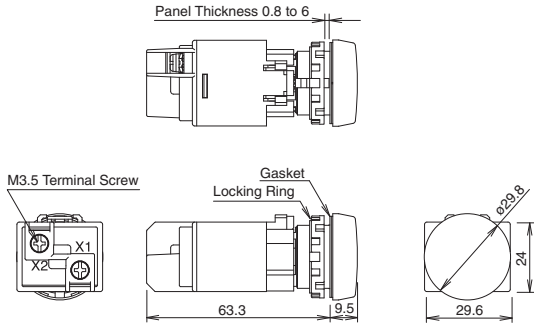
## Dimensions (Pilot Lights with Removable Contact Block)

### Flush

#### Full Voltage

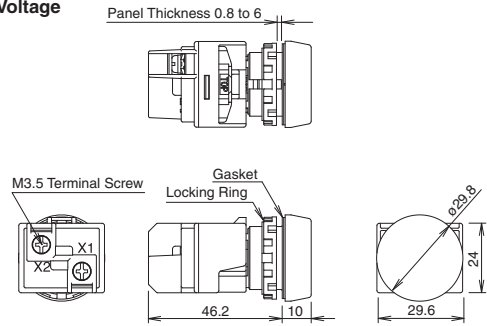


#### Transformer

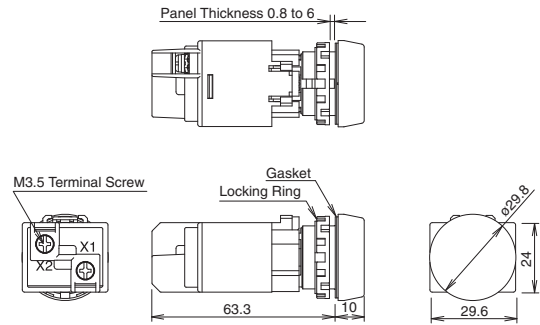


### Flush Marking

#### Full Voltage

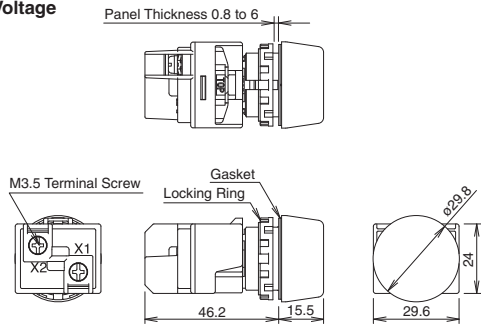


#### Transformer

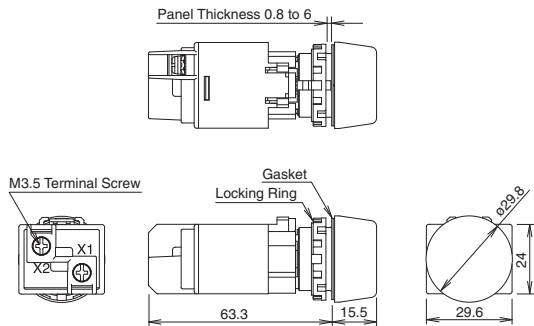


### Extended

#### Full Voltage

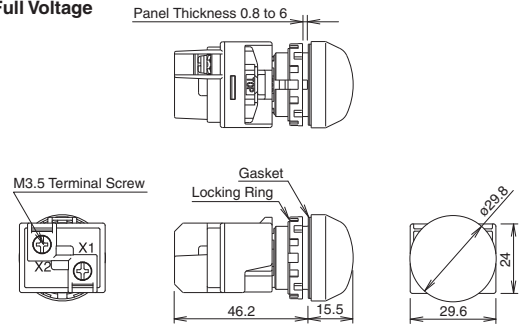


#### Transformer

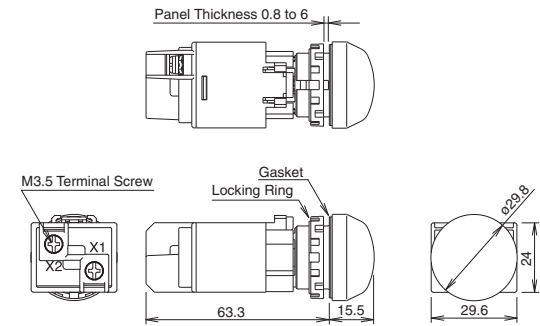


### Dome

#### Full Voltage



#### Transformer



Emergency Stop Switches

Pushbuttons

Pilot Lights

Illuminated Pushbuttons



Selector Switches

Key Selector Switches

# ø22 YW Series Illuminated Pushbuttons

## Illuminated Pushbuttons with Plastic Bezel


Package Quantity: 1

Shape	Lamp	Operation	Contact	Contact Block Mounting Position			Part No.	③ Operating Voltage Code	② Lens Color Code				
				1	2	3							
  	Without Lamp	Momentary	1NO	NO	FA	—	YW1L-M2E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow				
			1NC	—	FA	NC	YW1L-M2E01Q0②						
			2NO	NO	FA	NO	YW1L-M2E20Q0②						
			2NC	NC	FA	NC	YW1L-M2E02Q0②						
		Maintained	1NO-1NC	NO	FA	NC	YW1L-M2E11Q0②						
			1NO	NO	FA	—	YW1L-A2E10Q0②						
			1NC	—	FA	NC	YW1L-A2E01Q0②						
			2NO	NO	FA	NO	YW1L-A2E20Q0②						
		LED	Momentary	2NC	NC	FA	NC			YW1L-A2E02Q0②	2: 6V AC/DC 3: 12V AC/DC 4: 24V AC/DC H: 110/120V AC/DC M3: 230/240V AC/DC	A: amber G: green PW: pure white R: red S: blue W: white Y: yellow Built-in LED lamp: LSED-③②	
				1NO-1NC	NO	FA	NC			YW1L-M2E11Q③②			
				1NO	NO	FA	—			YW1L-M2E10Q③②			
				1NC	—	FA	NC			YW1L-M2E01Q③②			
	Maintained		2NO	NO	FA	NO	YW1L-M2E20Q③②						
			2NC	NC	FA	NC	YW1L-M2E02Q③②						
			1NO-1NC	NO	FA	NC	YW1L-M2E11Q③②						
			1NO	NO	FA	—	YW1L-A2E10Q③②						
	Incandescent		Momentary	1NC	—	FA	NC	YW1L-A2E01Q③②	5: 6V AC/DC 6: 12V AC/DC 7: 24V AC/DC	A: amber G: green R: red S: blue W: white Y: yellow Built-in incandescent lamp: LS-T③			
				2NO	NO	FA	NO	YW1L-A2E20Q③②					
				2NC	NC	FA	NC	YW1L-A2E02Q③②					
				1NO-1NC	NO	FA	NC	YW1L-A2E11Q③②					
		Maintained	1NO	NO	FA	—	YW1L-A2E10Q③②						
			1NC	—	FA	NC	YW1L-A2E01Q③②						
			2NO	NO	FA	NO	YW1L-A2E20Q③②						
			2NC	NC	FA	NC	YW1L-A2E02Q③②						
		Extended with Full Shroud	Without Lamp	Momentary	1NO	NO	FA	—			YW1L-MF2E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow
					1NC	—	FA	NC			YW1L-MF2E01Q0②		
					2NO	NO	FA	NO			YW1L-MF2E20Q0②		
					2NC	NC	FA	NC			YW1L-MF2E02Q0②		
	Maintained			1NO-1NC	NO	FA	NC	YW1L-MF2E11Q0②					
				1NO	NO	FA	—	YW1L-AF2E10Q0②					
				1NC	—	FA	NC	YW1L-AF2E01Q0②					
				2NO	NO	FA	NO	YW1L-AF2E20Q0②					
	LED			Momentary	2NC	NC	FA	NC	YW1L-AF2E02Q0②	2: 6V AC/DC 3: 12V AC/DC 4: 24V AC/DC H: 110/120V AC/DC M3: 230/240V AC/DC	A: amber G: green PW: pure white R: red S: blue W: white Y: yellow Built-in LED lamp: LSED-③②		
					1NO-1NC	NO	FA	NC	YW1L-MF2E11Q③②				
					1NO	NO	FA	—	YW1L-MF2E10Q③②				
					1NC	—	FA	NC	YW1L-MF2E01Q③②				
Maintained		2NO	NO	FA	NO	YW1L-MF2E20Q③②							
		2NC	NC	FA	NC	YW1L-MF2E02Q③②							
		1NO-1NC	NO	FA	NC	YW1L-MF2E11Q③②							
		1NO	NO	FA	—	YW1L-AF2E10Q③②							
Incandescent		Momentary	1NC	—	FA	NC	YW1L-AF2E01Q③②	5: 6V AC/DC 6: 12V AC/DC 7: 24V AC/DC	A: amber G: green R: red S: blue W: white Y: yellow Built-in incandescent lamp: LS-T③				
			2NO	NO	FA	NO	YW1L-AF2E20Q③②						
			2NC	NC	FA	NC	YW1L-AF2E02Q③②						
			1NO-1NC	NO	FA	NC	YW1L-AF2E11Q③②						
	Maintained	1NO	NO	FA	—	YW1L-AF2E10Q③②							
		1NC	—	FA	NC	YW1L-AF2E01Q③②							
		2NO	NO	FA	NO	YW1L-AF2E20Q③②							
		2NC	NC	FA	NC	YW1L-AF2E02Q③②							
				1NO-1NC	NO	FA	NC			YW1L-AF2E11Q③②			

Note: Specify a lens color code in place of ② in the Part No.  
Specify an operating voltage code in place of ③ in the Part No.

FA: Full voltage adapter

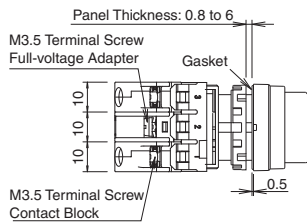
# YW Series Illuminated Pushbuttons ø22

Shape	Lamp	Operation	Contact	Contact Block Mounting Position			Part No.	③ Operating Voltage Code	② Lens Color Code				
				1	2	3							
	Without Lamp	Momentary	1NO	NO	FA	—	<b>YW1L-M4E10Q0</b> ②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow				
			1NC	—	FA	NC	<b>YW1L-M4E01Q0</b> ②						
			2NO	NO	FA	NO	<b>YW1L-M4E20Q0</b> ②						
			2NC	NC	FA	NC	<b>YW1L-M4E02Q0</b> ②						
			1NO-1NC	NO	FA	NC	<b>YW1L-M4E11Q0</b> ②						
			1NO	NO	FA	—	<b>YW1L-A4E10Q0</b> ②						
		Maintained	1NC	—	FA	NC	<b>YW1L-A4E01Q0</b> ②						
			2NO	NO	FA	NO	<b>YW1L-A4E20Q0</b> ②						
			2NC	NC	FA	NC	<b>YW1L-A4E02Q0</b> ②						
			1NO-1NC	NO	FA	NC	<b>YW1L-A4E11Q0</b> ②						
			1NO	NO	FA	—	<b>YW1L-M4E10Q</b> ③②						
			1NC	—	FA	NC	<b>YW1L-M4E01Q</b> ③②						
	LED	Momentary	2NO	NO	FA	NO	<b>YW1L-M4E20Q</b> ③②	2: 6V AC/DC 3: 12V AC/DC 4: 24V AC/DC H: 110/120V AC/DC M3: 230/240V AC/DC	A: amber G: green PW: pure white R: red S: blue W: white Y: yellow Built-in LED lamp: LSED-③②				
			2NC	NC	FA	NC	<b>YW1L-M4E02Q</b> ③②						
			1NO-1NC	NO	FA	NC	<b>YW1L-M4E11Q</b> ③②						
			1NO	NO	FA	—	<b>YW1L-A4E10Q</b> ③②						
			Maintained	1NC	—	FA	NC			<b>YW1L-A4E01Q</b> ③②			
				2NO	NO	FA	NO			<b>YW1L-A4E20Q</b> ③②			
		2NC		NC	FA	NC	<b>YW1L-A4E02Q</b> ③②						
		1NO-1NC		NO	FA	NC	<b>YW1L-A4E11Q</b> ③②						
		Incandescent		Momentary	1NO	NO	FA			—	<b>YW1L-M4E10Q</b> ③②	5: 6V AC/DC 6: 12V AC/DC 7: 24V AC/DC	A: amber G: green R: red S: blue W: white Y: yellow Built-in incandescent lamp: LS-T③
					1NC	—	FA			NC	<b>YW1L-M4E01Q</b> ③②		
			2NO		NO	FA	NO			<b>YW1L-M4E20Q</b> ③②			
			Maintained	2NC	NC	FA	NC			<b>YW1L-M4E02Q</b> ③②			
1NO	NO			FA	—	<b>YW1L-A4E10Q</b> ③②							
1NC	—			FA	NC	<b>YW1L-A4E01Q</b> ③②							
Incandescent	Momentary	2NO	NO	FA	NO	<b>YW1L-A4E20Q</b> ③②	5: 6V AC/DC 6: 12V AC/DC 7: 24V AC/DC	A: amber G: green R: red S: blue W: white Y: yellow Built-in incandescent lamp: LS-T③					
		2NC	NC	FA	NC	<b>YW1L-A4E02Q</b> ③②							
		1NO-1NC	NO	FA	NC	<b>YW1L-A4E11Q</b> ③②							
	Maintained	1NO	NO	FA	—	<b>YW1L-A4E10Q</b> ③②							
		1NC	—	FA	NC	<b>YW1L-A4E01Q</b> ③②							
		2NO	NO	FA	NO	<b>YW1L-A4E20Q</b> ③②							
2NC	NC	FA	NC	<b>YW1L-A4E02Q</b> ③②									
1NO-1NC	NO	FA	NC	<b>YW1L-A4E11Q</b> ③②									

Note: Specify a lens color code in place of ② in the Part No.  
Specify an operating voltage code in place of ③ in the Part No.

FA: Full voltage adapter

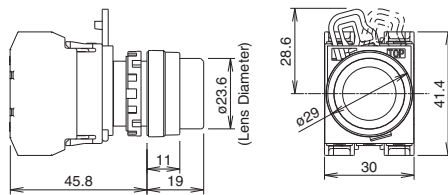
## Dimensions (Illuminated Pushbuttons with Plastic Bezel)



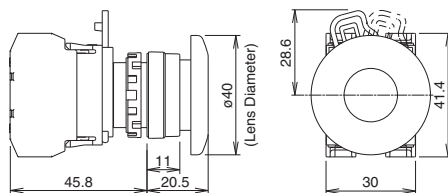
Contact Block Mounting Position



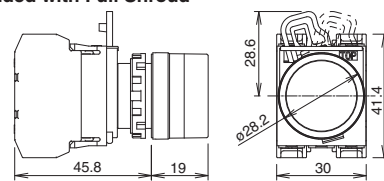
### Extended



### Mushroom



### Extended with Full Shroud






All dimensions in mm.



# ø22 YW Series Illuminated Pushbuttons

## Illuminated Pushbuttons with Metal Bezel


Package Quantity: 1

Shape	Lamp	Operation	Contact	Contact Block Mounting Position			Part No.	③ Operating Voltage Code	② Lens Color Code	
				1	2	3				
    	Without Lamp	Momentary	1NO	NO	FA	—	YW4L-M2E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow	
			1NC	—	FA	NC	YW4L-M2E01Q0②			
			2NO	NO	FA	NO	YW4L-M2E20Q0②			
			2NC	NC	FA	NC	YW4L-M2E02Q0②			
			1NO-1NC	NO	FA	NC	YW4L-M2E11Q0②			
			1NO	NO	FA	—	YW4L-A2E10Q0②			
		Maintained	1NC	—	FA	NC	YW4L-A2E01Q0②			
			2NO	NO	FA	NO	YW4L-A2E20Q0②			
			2NC	NC	FA	NC	YW4L-A2E02Q0②			
			1NO-1NC	NO	FA	NC	YW4L-A2E11Q0②			
			1NC	—	FA	NC	YW4L-M2E01Q③②			
			2NO	NO	FA	NO	YW4L-M2E20Q③②			
	2NC	NC	FA	NC	YW4L-M2E02Q③②					
	1NO-1NC	NO	FA	NC	YW4L-M2E11Q③②					
	1NO	NO	FA	—	YW4L-A2E10Q③②					
	Maintained	1NC	—	FA	NC	YW4L-A2E01Q③②				
		2NO	NO	FA	NO	YW4L-A2E20Q③②				
		2NC	NC	FA	NC	YW4L-A2E02Q③②				
		1NO-1NC	NO	FA	NC	YW4L-A2E11Q③②				
		1NC	—	FA	NC	YW4L-M2E01Q③②				
		2NO	NO	FA	NO	YW4L-M2E20Q③②				
	2NC	NC	FA	NC	YW4L-M2E02Q③②					
	1NO-1NC	NO	FA	NC	YW4L-M2E11Q③②					
	1NO	NO	FA	—	YW4L-A2E10Q③②					
	Maintained	1NC	—	FA	NC	YW4L-A2E01Q③②				
		2NO	NO	FA	NO	YW4L-A2E20Q③②				
		2NC	NC	FA	NC	YW4L-A2E02Q③②				
		1NO-1NC	NO	FA	NC	YW4L-A2E11Q③②				
		Without Lamp	Momentary	1NO	NO	FA	—	YW4L-MF2E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow
				1NC	—	FA	NC	YW4L-MF2E01Q0②		
	2NO			NO	FA	NO	YW4L-MF2E20Q0②			
	2NC			NC	FA	NC	YW4L-MF2E02Q0②			
	1NO-1NC			NO	FA	NC	YW4L-MF2E11Q0②			
	1NO			NO	FA	—	YW4L-AF2E10Q0②			
	Maintained		1NC	—	FA	NC	YW4L-AF2E01Q0②			
			2NO	NO	FA	NO	YW4L-AF2E20Q0②			
2NC			NC	FA	NC	YW4L-AF2E02Q0②				
1NO-1NC			NO	FA	NC	YW4L-AF2E11Q0②				
1NC			—	FA	NC	YW4L-MF2E01Q③②				
2NO			NO	FA	NO	YW4L-MF2E20Q③②				
2NC	NC	FA	NC	YW4L-MF2E02Q③②						
1NO-1NC	NO	FA	NC	YW4L-MF2E11Q③②						
1NO	NO	FA	—	YW4L-AF2E10Q③②						
Maintained	1NC	—	FA	NC	YW4L-AF2E01Q③②					
	2NO	NO	FA	NO	YW4L-AF2E20Q③②					
	2NC	NC	FA	NC	YW4L-AF2E02Q③②					
	1NO-1NC	NO	FA	NC	YW4L-AF2E11Q③②					
	1NC	—	FA	NC	YW4L-MF2E01Q③②					
	2NO	NO	FA	NO	YW4L-MF2E20Q③②					
2NC	NC	FA	NC	YW4L-MF2E02Q③②						
1NO-1NC	NO	FA	NC	YW4L-MF2E11Q③②						
1NO	NO	FA	—	YW4L-AF2E10Q③②						
Maintained	1NC	—	FA	NC	YW4L-AF2E01Q③②					
	2NO	NO	FA	NO	YW4L-AF2E20Q③②					
	2NC	NC	FA	NC	YW4L-AF2E02Q③②					
	1NO-1NC	NO	FA	NC	YW4L-AF2E11Q③②					

Note: Specify a lens color code in place of ② in the Part No.  
Specify an operating voltage code in place of ③ in the Part No.

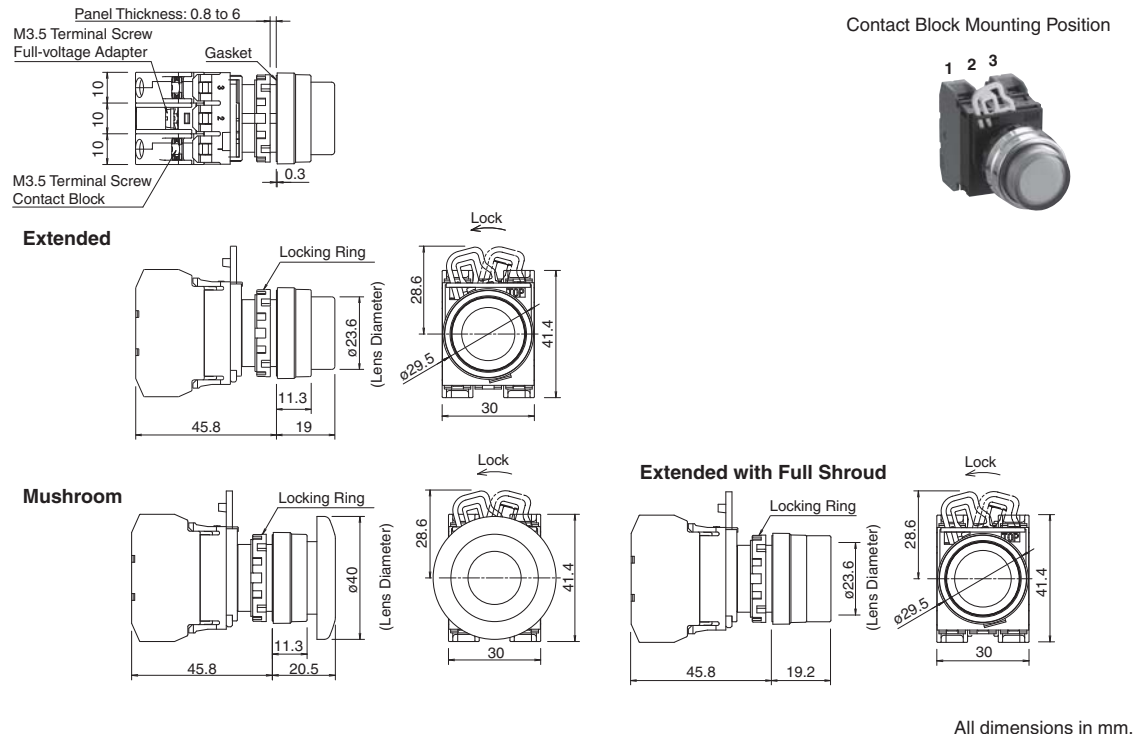
FA: Full voltage adapter

# YW Series Illuminated Pushbuttons ø22

Style	Lamp	Operation	Contact	Contact Block Mounting Position			Part No.	③ Operating Voltage Code	② Lens Color Code
				1	2	3			
	Without Lamp	Momentary	1NO	NO	FA	—	<b>YW4L-M4E10Q0</b> ②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow
			1NC	—	FA	NC	<b>YW4L-M4E01Q0</b> ②		
			2NO	NO	FA	NO	<b>YW4L-M4E20Q0</b> ②		
			2NC	NC	FA	NC	<b>YW4L-M4E02Q0</b> ②		
			1NO-1NC	NO	FA	NC	<b>YW4L-M4E11Q0</b> ②		
			1NO	NO	FA	—	<b>YW4L-A4E10Q0</b> ②		
		Maintained	1NC	—	FA	NC	<b>YW4L-A4E01Q0</b> ②		
			2NO	NO	FA	NO	<b>YW4L-A4E20Q0</b> ②		
			2NC	NC	FA	NC	<b>YW4L-A4E02Q0</b> ②		
			1NO-1NC	NO	FA	NC	<b>YW4L-A4E11Q0</b> ②		
			1NO	NO	FA	—	<b>YW4L-M4E10Q</b> ③②		
			1NC	—	FA	NC	<b>YW4L-M4E01Q</b> ③②		
	LED	Momentary	2NO	NO	FA	NO	<b>YW4L-M4E20Q</b> ③②	2: 6V AC/DC 3: 12V AC/DC 4: 24V AC/DC H: 110/120V AC/DC M3: 230/240V AC/DC	A: amber G: green PW: pure white R: red S: blue W: white Y: yellow Built-in LED lamp: LSED-③②
			2NC	NC	FA	NC	<b>YW4L-M4E02Q</b> ③②		
			1NO-1NC	NO	FA	NC	<b>YW4L-M4E11Q</b> ③②		
			1NO	NO	FA	—	<b>YW4L-A4E10Q</b> ③②		
			1NC	—	FA	NC	<b>YW4L-A4E01Q</b> ③②		
			Maintained	2NO	NO	FA	NO		
		2NC		NC	FA	NC	<b>YW4L-A4E02Q</b> ③②		
		1NO-1NC		NO	FA	NC	<b>YW4L-A4E11Q</b> ③②		
		1NO		NO	FA	—	<b>YW4L-M4E10Q</b> ③②		
		1NC		—	FA	NC	<b>YW4L-M4E01Q</b> ③②		
		2NO		NO	FA	NO	<b>YW4L-M4E20Q</b> ③②		
		Incandescent	Momentary	2NC	NC	FA	NC		
1NO-1NC	NO			FA	NC	<b>YW4L-M4E11Q</b> ③②			
1NO	NO			FA	—	<b>YW4L-A4E10Q</b> ③②			
1NC	—			FA	NC	<b>YW4L-A4E01Q</b> ③②			
Maintained	2NO			NO	FA	NO	<b>YW4L-A4E20Q</b> ③②		
	2NC			NC	FA	NC	<b>YW4L-A4E02Q</b> ③②		
	1NO-1NC		NO	FA	NC	<b>YW4L-A4E11Q</b> ③②			

Note: Specify a lens color code in place of ② in the Part No.  
Specify an operating voltage code in place of ③ in the Part No. FA: Full voltage adapter

## Dimensions (Illuminated Pushbutton with Metal Bezel)



Emergency Stop Switches

Pushbuttons

Pilot Lights

Illuminated Pushbuttons

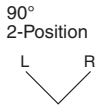
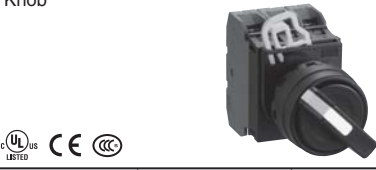
Selector Switches

Key Selector Switches

# ø22 YW Series Selector Switches

## Selector Switches with Plastic Bezel

Package Quantity: 1

Shape				Knob							
											
No. of Positions	Contact Configuration	Contact Block Mounting Position	Operator Position			Maintained	Spring Return from Right	—	—		
			L	R	—						
90° 2-Position	1NO (10)	1	NO	●			YW1S-2E10	YW1S-21E10	—	—	
		2									
		3									
	1NC (01)	1						YW1S-2E01	YW1S-21E01	—	—
		2									
		3	NC	●							
	2NO (20)	1	NO		●			YW1S-2E20	YW1S-21E20	—	—
		2									
		3									
	2NC (02)	1	NC	●				YW1S-2E02	YW1S-21E02	—	—
		2									
		3	NC	●							
	1NO-1NC (11)	1	NO		●			YW1S-2E11	YW1S-21E11	—	—
		2									
		3	NC	●							
	3NO (30)	1	NO		●			YW1S-2E30	YW1S-21E30	—	—
		2	NO		●						
		3	NO		●						
3NC (03)	1	NC	●				YW1S-2E03	YW1S-21E03	—	—	
	2	NC	●								
	3	NC	●								
2NO-1NC (21)	1	NO		●			YW1S-2E21	YW1S-21E21	—	—	
	2	NO		●							
	3	NC	●								
1NO-2NC (12)	1	NO		●			YW1S-2E12	YW1S-21E12	—	—	
	2	NC	●								
	3	NC	●								
No. of Positions	Contact Configuration	Contact Block Mounting Position	Operator Position			Maintained	Spring Return from Right	Spring Return from Left	Spring Return Two-Way		
			L	C	R						
45° 3-Position	2NO (20)	1	NO	●			YW1S-3E20	YW1S-31E20	YW1S-32E20	YW1S-33E20	
		2									
		3	NO			●					
	2NO (20N1)	1	NO	●				YW1S-3E20N1	YW1S-31E20N1	YW1S-32E20N1	YW1S-33E20N1
		2	NO			●					
		3	NO			●					
	2NC (02)	1	NC	●				YW1S-3E02	YW1S-31E02	YW1S-32E02	YW1S-33E02
		2									
		3	NC	●							
	2NC (02N1)	1	NC	●				YW1S-3E02N1	YW1S-31E02N1	YW1S-32E02N1	YW1S-33E02N1
		2	NC	●							
		3	NC	●							
	1NO-1NC (11)	1	NO	●				YW1S-3E11	YW1S-31E11	YW1S-32E11	YW1S-33E11
		2									
		3	NC	●							
	1NO-1NC (11N1)	1	NO	●				YW1S-3E11N1	YW1S-31E11N1	YW1S-32E11N1	YW1S-33E11N1
		2									
		3	NO			●					
	1NO-1NC (11N2)	1	NO	●				YW1S-3E11N2	YW1S-31E11N2	YW1S-32E11N2	YW1S-33E11N2
		2	NC	●							
		3									
	1NO-1NC (11N3)	1	NO	●				YW1S-3E11N3	YW1S-31E11N3	YW1S-32E11N3	YW1S-33E11N3
		2	NC	●							
		3	NO			●					
1NO-1NC (11N4)	1	NO	●				YW1S-3E11N4	YW1S-31E11N4	YW1S-32E11N4	YW1S-33E11N4	
	2	NO			●						
	3	NC	●								
3NO (30)	1	NO	●				YW1S-3E30	YW1S-31E30	YW1S-32E30	YW1S-33E30	
	2	NO			●						
	3	NO			●						
3NC (03)	1	NC	●				YW1S-3E03	YW1S-31E03	YW1S-32E03	YW1S-33E03	
	2	NC	●								
	3	NC	●								
2NO-1NC (21)	1	NO	●				YW1S-3E21	YW1S-31E21	YW1S-32E21	YW1S-33E21	
	2	NC	●								
	3	NO			●						
1NO-2NC (12)	1	NO	●				YW1S-3E12	YW1S-31E12	YW1S-32E12	YW1S-33E12	
	2	NO			●						
	3	NC	●								

# YW Series Selector Switches ø22

## Selector Switches with Metal Bezel

Package Quantity: 1

Shape				Knob							
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;"> <p>90° 2-Position</p> </div> </div>											
No. of Positions	Contact Configuration	Contact Block Mounting Position	Operator Position			Maintained	Spring Return from Right	—	—		
			L	R	—						
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;"> <p>90° 2-Position</p> </div> </div>	1NO (10)	1	NO	●			YW4S-2E10	YW4S-21E10	—	—	
		2									
		3									
	1NC (01)	1									
		2									
		3	NC	●							
	2NO (20)	1	NO		●			YW4S-2E20	YW4S-21E20	—	—
		2									
		3	NO		●						
	2NC (02)	1	NC	●				YW4S-2E02	YW4S-21E02	—	—
		2									
		3	NC	●							
	1NO-1NC (11)	1	NO		●			YW4S-2E11	YW4S-21E11	—	—
		2									
		3	NC	●							
	3NO (30)	1	NO			●					
		2	NO			●		YW4S-2E30	YW4S-21E30	—	—
		3	NO			●					
3NC (03)	1	NC	●				YW4S-2E03	YW4S-21E03	—	—	
	2	NC	●								
	3	NC	●								
2NO-1NC (21)	1	NO		●			YW4S-2E21	YW4S-21E21	—	—	
	2	NO	●								
	3	NC			●						
1NO-2NC (12)	1	NO		●			YW4S-2E12	YW4S-21E12	—	—	
	2	NC	●								
	3	NC	●								
No. of Positions	Contact Configuration	Contact Block Mounting Position	Operator Position			Maintained	Spring Return from Right	Spring Return from Left	Spring Return Two-Way		
			L	C	R						
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;"> <p>45° 3-Position</p> </div> </div>	2NO (20)	1	NO	●			YW4S-3E20	YW4S-31E20	YW4S-32E20	YW4S-33E20	
		2									
		3	NO			●					
	2NO (20N1)	1									
		2	NO	●				YW4S-3E20N1	YW4S-31E20N1	YW4S-32E20N1	YW4S-33E20N1
		3	NO			●					
	2NC (02)	1	NC			■		YW4S-3E02	YW4S-31E02	YW4S-32E02	YW4S-33E02
		2				■					
		3	NC			■					
	2NC (02N1)	1				■		YW4S-3E02N1	YW4S-31E02N1	YW4S-32E02N1	YW4S-33E02N1
		2	NC	●							
		3	NC			■					
	1NO-1NC (11)	1	NO	●				YW4S-3E11	YW4S-31E11	YW4S-32E11	YW4S-33E11
		2									
		3	NC			■					
	1NO-1NC (11N1)	1	NC			■		YW4S-3E11N1	YW4S-31E11N1	YW4S-32E11N1	YW4S-33E11N1
		2									
		3	NO			●					
	1NO-1NC (11N2)	1	NO	●				YW4S-3E11N2	YW4S-31E11N2	YW4S-32E11N2	YW4S-33E11N2
		2	NC			●					
		3									
	1NO-1NC (11N3)	1									
		2	NC			●		YW4S-3E11N3	YW4S-31E11N3	YW4S-32E11N3	YW4S-33E11N3
		3	NO			●					
1NO-1NC (11N4)	1	NO	●				YW4S-3E11N4	YW4S-31E11N4	YW4S-32E11N4	YW4S-33E11N4	
	2	NC			■						
	3				■						
3NO (30)	1	NO	●				YW4S-3E30	YW4S-31E30	YW4S-32E30	YW4S-33E30	
	2	NO	●								
	3	NO			●						
3NC (03)	1	NC			■		YW4S-3E03	YW4S-31E03	YW4S-32E03	YW4S-33E03	
	2	NC	●								
	3	NC			■						
2NO-1NC (21)	1	NO	●				YW4S-3E21	YW4S-31E21	YW4S-32E21	YW4S-33E21	
	2	NC			●						
	3	NO			●						
1NO-2NC (12)	1	NC			■		YW4S-3E12	YW4S-31E12	YW4S-32E12	YW4S-33E12	
	2	NO	●								
	3	NC			■						

Emergency Stop Switches

Pushbuttons

Pilot Lights

Illuminated Pushbuttons

Selector Switches

Key Selector Switches



# ø22 YW Series Selector Switches

## Contact Block Mounting Position

### Selector Switch with Plastic Bezel

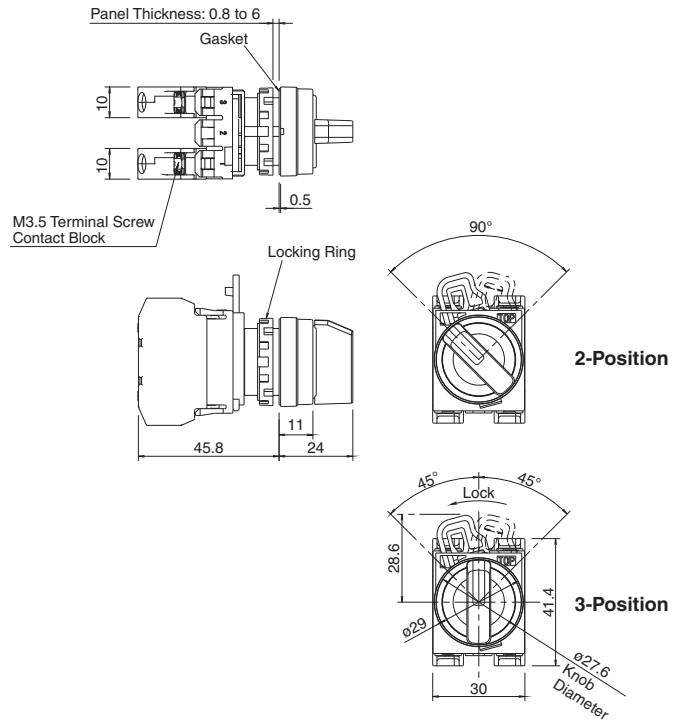
Contact Block  
Mounting Position  
1 2 3



L C R  
Operator Position

## Dimensions

### Selector Switch with Plastic Bezel



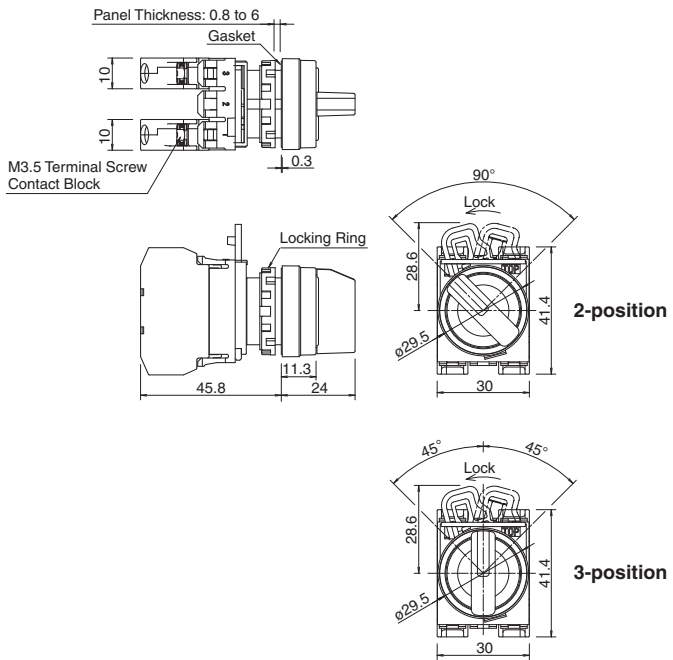
### Selector Switch with Metal Bezel

Contact Block  
Mounting Position  
1 2 3



L C R  
Operator Position

### Selector Switch with Metal Bezel



All dimensions in mm.

# YW Series Key Selector Switches ø22

## Key Selector Switches (90° 2-Position)

Package Quantity: 1

No. of Positions	Contact Configuration	Contact Block Mounting Position		Operator Position		Part No.		
				L	R	Plastic Bezel	Metal Bezel	
90° 2-position Maintained 	1NO (10)	1	NO		●	 YW1K-2AE10	 YW4K-2AE10	
		2						
		3						
	1NC (01)	1					 YW1K-2AE01	 YW4K-2AE01
		2						
		3	NC	●				
	2NO (20)	1	NO			●	 YW1K-2AE20	 YW4K-2AE20
		2						
		3	NO			●		
	2NC (02)	1	NC	●			 YW1K-2AE02	 YW4K-2AE02
		2						
		3	NC	●				
	1NO-1NC (11)	1	NO			●	 YW1K-2AE11	 YW4K-2AE11
		2						
		3	NC	●				
	3NO (30)	1	NO			●	 YW1K-2AE30	 YW4K-2AE30
		2	NO			●		
		3	NO			●		
3NC (03)	1	NC	●			 YW1K-2AE03	 YW4K-2AE03	
	2	NC	●					
	3	NC	●					
2NO-1NC (21)	1	NO			●	 YW1K-2AE21	 YW4K-2AE21	
	2	NO	●					
	3	NC			●			
1NO-2NC (12)	1	NO			●	 YW1K-2AE12	 YW4K-2AE12	
	2	NC	●					
	3	NC	●					
90° 2-position Spring Return from Right 	1NO (10)	1	NO		●	 YW1K-21BE10	 YW4K-21BE10	
		2						
		3						
	1NC (01)	1					 YW1K-21BE01	 YW4K-21BE01
		2						
		3	NC	●				
	2NO (20)	1	NO			●	 YW1K-21BE20	 YW4K-21BE20
		2						
		3	NO			●		
	2NC (02)	1	NC	●			 YW1K-21BE02	 YW4K-21BE02
		2						
		3	NC	●				
	1NO-1NC (11)	1	NO			●	 YW1K-21BE11	 YW4K-21BE11
		2						
		3	NC	●				
	3NO (30)	1	NO			●	 YW1K-21BE30	 YW4K-21BE30
		2	NO			●		
		3	NO			●		
3NC (03)	1	NC	●			 YW1K-21BE03	 YW4K-21BE03	
	2	NC	●					
	3	NC	●					
2NO-1NC (21)	1	NO			●	 YW1K-21BE21	 YW4K-21BE21	
	2	NO	●					
	3	NC			●			
1NO-2NC (12)	1	NO			●	 YW1K-21BE12	 YW4K-21BE12	
	2	NC	●					
	3	NC	●					

- On the spring-returned types, the key can be removed only from the maintained position. On the maintained types, the key can be removed from every position. Key retained positions are also available. See Part No. Development shown on page 20.
- Each key selector switch is supplied with two identical keys.

Emergency Stop Switches

Pushbuttons

Pilot Lights

Illuminated Pushbuttons




Selector Switches

Key Selector Switches

# ø22 YW Series Key Selector Switches

## Key Selector Switches (45° 3-Position)

Package Quantity: 1

No. of Positions	Contact Configuration	Contact Block Mounting Position			Operator Position			Part No.	
					L	C	R	Plastic Bezel	Metal Bezel
									
45° 3-position Maintained 	2NO (20)	1	NO	●				YW1K-3AE20	YW4K-3AE20
		2							
		3	NO				●		
	2NO (20N1)	1			●			YW1K-3AE20N1	YW4K-3AE20N1
		2	NO				●		
		3	NO				●		
	2NC (02)	1	NC				■	YW1K-3AE02	YW4K-3AE02
		2							
		3	NC				■		
	2NC (02N1)	1						YW1K-3AE02N1	YW4K-3AE02N1
		2	NC			●			
		3	NC				■		
	1NO-1NC (11)	1	NO			●		YW1K-3AE11	YW4K-3AE11
		2							
		3	NC				■		
	1NO-1NC (11N1)	1	NC				■	YW1K-3AE11N1	YW4K-3AE11N1
		2							
		3	NO				●		
	1NO-1NC (11N2)	1	NO			●		YW1K-3AE11N2	YW4K-3AE11N2
		2	NC				■		
		3							
	1NO-1NC (11N3)	1						YW1K-3AE11N3	YW4K-3AE11N3
		2	NC				■		
		3	NO				●		
	1NO-1NC (11N4)	1						YW1K-3AE11N4	YW4K-3AE11N4
		2	NO			●			
		3	NC				■		
	3NO (30)	1	NO			●		YW1K-3AE30	YW4K-3AE30
2		NO			●				
3		NO				●			
3NC (03)	1	NC				■	YW1K-3AE03	YW4K-3AE03	
	2	NC				■			
	3	NC				■			
2NO-1NC (21)	1	NO			●		YW1K-3AE21	YW4K-3AE21	
	2	NC				■			
	3	NO				●			
1NO-2NC (12)	1	NC				■	YW1K-3AE12	YW4K-3AE12	
	2	NO			●				
	3	NC				■			

- On the maintained types, the key can be removed from every position. Key retained positions are also available. See Part No. Development below.
- Each key selector switch is supplied with two identical keys.

### Part No. Development

YW1K-2 A E21

Key removal position code  
2-position

- A: Removable in all positions
- B: Removable in left only
- C: Removable in right only

3-position

- A: Removable in all positions
- B: Removable in left and center
- C: Removable in right and center
- D: Removable in center only
- E: Removable in right and left
- G: Removable in left only
- H: Removable in right only

### Contact Block Mounting Position

Contact Block Mounting Position

1 2 3






L C R

Operator Position

# YW Series Key Selector Switches ø22

## Key Selector Switches (45° 3-Position)

Package Quantity: 1

No. of Positions	Contact Configuration	Contact Block Mounting Position		Operator Position			Part No.		
				L	C	R	Plastic Bezel	Metal Bezel	
									
45° 3-position Spring Return from Right 	2NO (20)	1	NO	●			YW1K-31BE20	YW4K-31BE20	
		2							
		3	NO			●			
	2NO (20N1)	1			●			YW1K-31BE20N1	YW4K-31BE20N1
		2	NO			●			
		3	NO			●			
	2NC (02)	1	NC			■		YW1K-31BE02	YW4K-31BE02
		2							
		3	NC			■			
	2NC (02N1)	1						YW1K-31BE02N1	YW4K-31BE02N1
		2	NC		●				
		3	NC		■				
	1NO-1NC (11)	1	NO		●			YW1K-31BE11	YW4K-31BE11
		2							
		3	NC		■				
	1NO-1NC (11N1)	1	NC				■	YW1K-31BE11N1	YW4K-31BE11N1
		2							
		3	NO			●			
	1NO-1NC (11N2)	1	NO		●			YW1K-31BE11N2	YW4K-31BE11N2
		2	NC			●			
		3							
	1NO-1NC (11N3)	1						YW1K-31BE11N3	YW4K-31BE11N3
		2	NC		●				
		3	NO			●			
1NO-1NC (11N4)	1						YW1K-31BE11N4	YW4K-31BE11N4	
	2	NO		●					
	3	NC		■					
3NO (30)	1	NO		●			YW1K-31BE30	YW4K-31BE30	
	2	NO		●					
	3	NO		●					
3NC (03)	1	NC				■	YW1K-31BE03	YW4K-31BE03	
	2	NC		●					
	3	NC		■					
2NO-1NC (21)	1	NO		●			YW1K-31BE21	YW4K-31BE21	
	2	NC			●				
	3	NO			●				
1NO-2NC (12)	1	NC				■	YW1K-31BE12	YW4K-31BE12	
	2	NO		●					
	3	NC		■					

- On the spring-returned types, the key can be removed only from the maintained position. Key retained positions are also available. See Part No. Development shown on page 20.
- Each key selector switch is supplied with two identical keys.

Emergency Stop Switches

Pushbuttons

Pilot Lights

Illuminated Pushbuttons

Selector Switches




Key Selector Switches



# ø22 YW Series Key Selector Switches

## Key Selector Switches (45° 3-Position)

Package Quantity: 1




No. of Positions	Contact Configuration	Contact Block Mounting Position		Operator Position			Part No.		
				L	C	R	Plastic Bezel	Metal Bezel	
									
45° 3-position Spring Return from Left 	2NO (20)	1	NO	●			YW1K-32CE20	YW4K-32CE20	
		2							
		3	NO			●			
	2NO (20N1)	1						YW1K-32CE20N1	YW4K-32CE20N1
		2	NO	●		●			
		3	NO			●			
	2NC (02)	1	NC			■		YW1K-32CE02	YW4K-32CE02
		2							
		3	NC			■			
	2NC (02N1)	1						YW1K-32CE02N1	YW4K-32CE02N1
		2	NC		●				
		3	NC			■			
	1NO-1NC (11)	1	NO	●				YW1K-32CE11	YW4K-32CE11
		2							
		3	NC			■			
	1NO-1NC (11N1)	1	NC				■	YW1K-32CE11N1	YW4K-32CE11N1
		2							
		3	NO			●			
	1NO-1NC (11N2)	1	NO	●				YW1K-32CE11N2	YW4K-32CE11N2
		2	NC		●				
		3							
	1NO-1NC (11N3)	1						YW1K-32CE11N3	YW4K-32CE11N3
		2	NC		●				
		3	NO			●			
1NO-1NC (11N4)	1						YW1K-32CE11N4	YW4K-32CE11N4	
	2	NO	●		●				
	3	NC			■				
3NO (30)	1	NO	●				YW1K-32CE30	YW4K-32CE30	
	2	NO	●		●				
	3	NO			●				
3NC (03)	1	NC			■		YW1K-32CE03	YW4K-32CE03	
	2	NC		●					
	3	NC			■				
2NO-1NC (21)	1	NO	●				YW1K-32CE21	YW4K-32CE21	
	2	NC		●					
	3	NO			●				
1NO-2NC (12)	1	NC			■		YW1K-32CE12	YW4K-32CE12	
	2	NO	●		●				
	3	NC			■				

- On the spring-returned types, the key can be removed only from the maintained position. Key retained positions are also available. See Part No. Development shown on page 20.
- Each key selector switch is supplied with two identical keys.

# YW Series Key Selector Switches ø22

## Key Selector Switches (45° 3-Position)

Package Quantity: 1

No. of Positions	Contact Configuration	Contact Block Mounting Position		Operator Position			Part No.		
				L	C	R	Plastic Bezel	Metal Bezel	
									
45° 3-position Spring Return Two-way 	2NO (20)	1	NO	●			YW1K-33DE20	YW4K-33DE20	
		2							
		3	NO			●			
	2NO (20N1)	1			●			YW1K-33DE20N1	YW4K-33DE20N1
		2	NO			●			
		3	NO			●			
	2NC (02)	1	NC			■		YW1K-33DE02	YW4K-33DE02
		2							
		3	NC			■			
	2NC (02N1)	1						YW1K-33DE02N1	YW4K-33DE02N1
		2	NC		●				
		3	NC			■			
	1NO-1NC (11)	1	NO		●			YW1K-33DE11	YW4K-33DE11
		2							
		3	NC			■			
	1NO-1NC (11N1)	1	NC				■	YW1K-33DE11N1	YW4K-33DE11N1
		2							
		3	NO			●			
	1NO-1NC (11N2)	1	NO		●			YW1K-33DE11N2	YW4K-33DE11N2
		2	NC			●			
		3							
	1NO-1NC (11N3)	1						YW1K-33DE11N3	YW4K-33DE11N3
		2	NC		●				
		3	NO			●			
1NO-1NC (11N4)	1						YW1K-33DE11N4	YW4K-33DE11N4	
	2	NO		●					
	3	NC			■				
3NO (30)	1	NO		●			YW1K-33DE30	YW4K-33DE30	
	2	NO		●					
	3	NO			●				
3NC (03)	1	NC				■	YW1K-33DE03	YW4K-33DE03	
	2	NC		●					
	3	NC			■				
2NO-1NC (21)	1	NO		●			YW1K-33DE21	YW4K-33DE21	
	2	NC			●				
	3	NO			●				
1NO-2NC (12)	1	NC				■	YW1K-33DE12	YW4K-33DE12	
	2	NO		●					
	3	NC			■				

- On the spring-returned types, the key can be removed only from the maintained position. Key retained positions are also available. See Part No. Development shown on page 20.
- Each key selector switch is supplied with two identical keys.

Emergency Stop Switches

Pushbuttons

Pilot Lights

Illuminated Pushbuttons

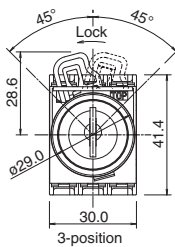
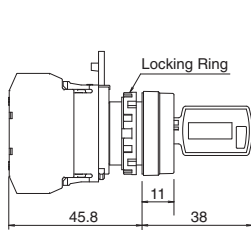
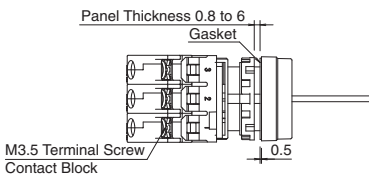
Selector Switches

Key Selector Switches

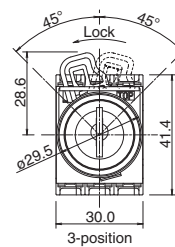
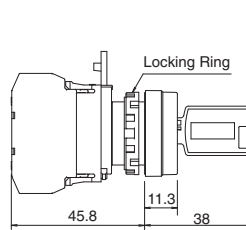
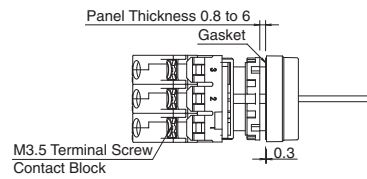
# ø22 YW Series Key Selector Switches

## Dimensions (Key Selector Switch)

### Plastic Bezel


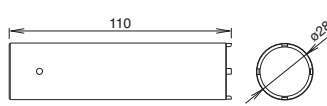

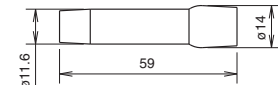

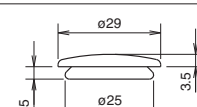

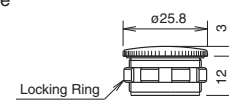

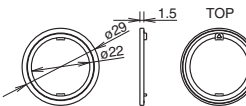


### Metal Bezel




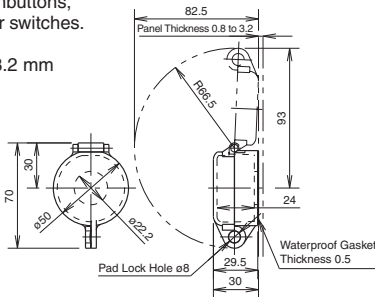
All dimensions in mm.

## Accessories


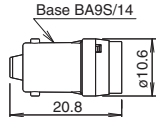

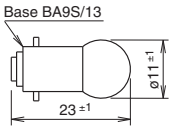

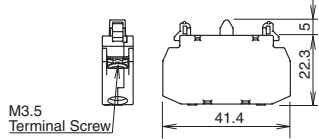

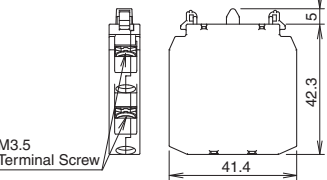

Name & Shape	Part No.	Description & Dimensions (mm)	Package Quantity
	<b>MW9Z-T1</b>	Metallic tool used to tighten the plastic locking ring when installing the YW series control unit in a panel. 	1
	<b>OR-55</b>	Made of rubber. Used for replacing lamps. 	1
	<b>OB-31PN05</b>	Used for plugging unused mounting holes in the panel. Color: Black 	5
	<b>LW9Z-BM</b>	Used for plugging unused mounting holes in the panel. Weight: Approx. 18g 	1
	<b>HW9Z-RLPN10</b>	Prevents rotation of switches in panel. Mainly used with selector switches when no nameplate is used. With waterproof gasket (IP65). Made of plastic (black). Applicable panel thickness: 1.2 to 4.5 mm 	10

## YW Series Accessories / Maintenance Parts 022

Name & Shape	Part No.	Description & Dimensions (mm)	Package Quantity
	<b>HW9Z-KL1</b>	Plastic hinged cover to protect pushbuttons, illuminated pushbuttons, or selector switches. Degree of protection: IP65. Applicable panel thickness: 0.8 to 3.2 mm	1



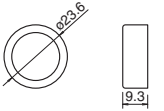
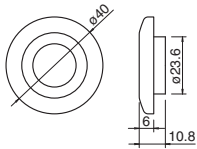
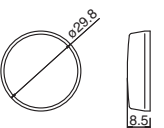
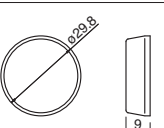
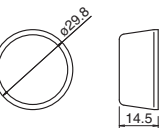
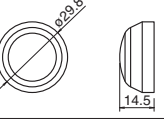
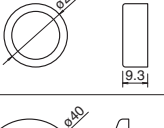
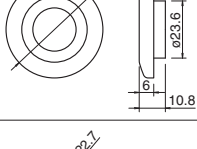
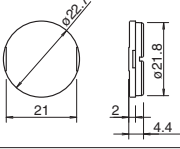
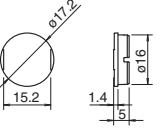
### Maintenance Parts

Name & Shape	Part No.	Description & Dimensions (mm)		Package Quantity	
	<b>LSED-6</b> ②	6V AC/DC	Specify a color code in place of ② in the Part No.: A (amber), G (green), PW (pure white), R (red), S (blue), Y (yellow)  Applicable units: • LED illuminated pilot lights • LED illuminated pushbuttons For the rated current, see page 4.  Note: Yellow LED lamps are used for white illumination of pilot lights and illuminated pushbuttons.		1
	<b>LSED-1</b> ②	12V AC/DC			
	<b>LSED-2</b> ②	24V AC/DC			
	<b>LSED-H</b> ②	110V AC/DC			
	<b>LSED-M3</b> ②	230/240V AC/DC			
	<b>LS-T6P</b>	6.3V, 1W	One pack contains 100 incandescent lamps.		100
	<b>LS-T8P</b>	18V, 1W			
	<b>LS-T3P</b>	30V, 1W			
	<b>YW-E10</b>	Contact: 1NO	Color: blue		10
	<b>YW-E01</b>	Contact: 1NC	Color: reddish purple		
	<b>YW-EW20</b>	Contact: 2NO	Color: blue		10
	<b>YW-EW02</b>	Contact: 2NC	Color: reddish purple		
	<b>YW-EW11</b>	Contact: 1NO-1NC	Color: blue and reddish purple		
	<b>YW9Z-SK00PN02</b>				2



## ø22 YW Series Accessories

### Buttons, Lenses, and Marking Plates

Name	Style	Part No.	① ② Color Code	Dimensions (mm)	Package Quantity
Button (for pushbuttons)	Extended	<b>YW9Z-B12①PN10</b>	B: black G: green R: red S: blue W: white Y: yellow		10
	Mushroom ø40mm	<b>YW9Z-B14①PN10</b>			
Lens (for pilot lights)	Flush	<b>YW9Z-PL11②PN10</b>	A: amber C: clear G: green R: red S: blue W: white Y: yellow		10
	Flush Marking	<b>YW9Z-PL11B②PN10</b>	A: amber C: clear G: green R: red S: blue Y: yellow		10
	Extended	<b>YW9Z-PL12T②PN10</b>	A: amber C: clear G: green R: red S: blue W: white Y: yellow		10
	Dome	<b>YW9Z-PL12②PN10</b>	A: amber C: clear G: green R: red S: blue W: white Y: yellow		10
Lens (for illuminated pushbuttons)	Extended	<b>YW9Z-L12②PN10</b>	A: amber C: clear G: green R: red S: blue Y: yellow		10
	Mushroom ø40mm	<b>YW9Z-L14②PN10</b>			
Marking Plate (for pilot lights)	—	<b>YW9Z-PP12PN10</b>	—		10
Marking Plate (for illuminated pushbuttons)	—	<b>YW9Z-P12PN10</b>	—		10

**Nameplates**

**HWAM, HWAQ, HWAS, and HWAV**

Name	Legend	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)
HWAM	Order marking plate separately.	Plastic (black) 1.5 mm thick	HWAM	HWAM	1	
				HWAMPN10	10	
HWAQ	Order marking plate separately.	Plastic (black) 1.5 mm thick	HWAQ	HWAQ	1	
				HWAQPN10	10	
HWAQ	Blank	Plastic (black) 1.5 mm thick	HWAS-0	HWAS-0	1	
				HWAS-0PN10	10	
HWAV	Blank	Plastic (yellow) 1.5 mm thick	HWAV-0	HWAV-0	1	
	EMERGENCY STOP		HWAV-27	HWAV-27	1	

**Making Plate**

Description	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)
HWNP	Aluminum (black) 1.0 mm thick	HWNP-*	HWNP-*	1	
			HWNP-*PN10	10	

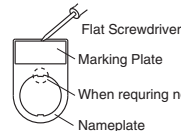
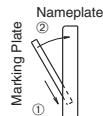
\* Specify a legend code in place of \* in the Ordering No.

**Legends**

Code	Legend
0	(blank)
1	ON
2	OFF
3	START
4	STOP
31	OFF-ON
35	HAND-AUTO
53	HAND-OFF-AUTO

• Installing the marking plate on a nameplate

• To remove the marking plate, insert the flat screwdriver between the marking plate and nameplate.



When requiring no anti-rotation, remove the projection using pliers.

Note: When using an nameplate, the mounting panel thickness is decreased by 1.5 mm.

# ø22 YW Series Accessories

## Switch Guards

Package Quantity: 1

Part No. & Shape (mm)	Dimensions	Part No. & Shape	Dimensions (mm)
<p>EMO Switch Guard SEMI S2 compliant (Note 1)</p>		<p>EMO Switch Guard SEMI S2 compliant (Note 2) SEMATECH compliant (Note 3)</p>	
<p>EMO Switch Guard SEMI S2 compliant (Note 1) SEMATECH compliant (Note 3)</p>		<p>EMO Switch Guard SEMI S2 compliant (Note 2) SEMATECH compliant (Note 3)</p>	
<p>EMO Switch Guard SEMI S2 compliant (Note 2)</p>			

Material: Polyamide (PA6)

Color: Yellow, Munsell 2.5Y 8/10 equivalent

Degree of protection: IP65

• Degree of protection IP65 applies to the combination of an emergency stop switch and an EMO switch guard.

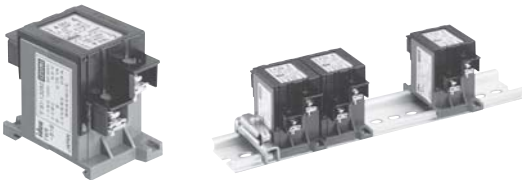
Note 1: SEMI S2-0703 12.5.1 compliant.

Note 2: The combination of IDEC's emergency stop switches and EMO switch guards are approved by TÜV Rheinland for compliance with SEMI S2 standard.

Note 3: SEMATECH Application Guide for SEMI S2-93, 12.4.c. compliant.

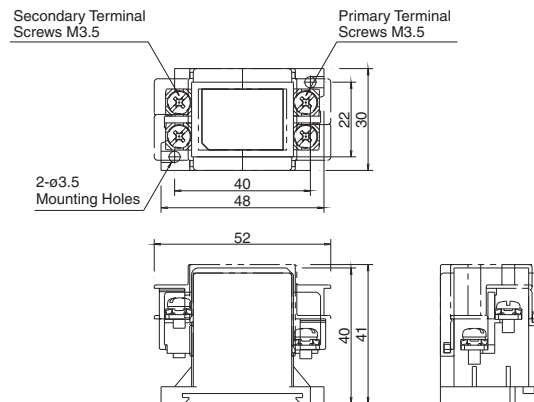
## Transformer

### Din Rail Mount Transformer For 6V



Primary Voltage (50/60 Hz)	Part No.	Applicable Lamp Rating
110V AC	<b>TWR516</b>	One full voltage type illuminated unit containing LED lamp LSED-6 (6V AC/DC) or incandescent lamp LS-T6 (6.3V)
115V AC	<b>TWR5116</b>	
120V AC	<b>TWR5126</b>	
220V AC	<b>TWR526</b>	
230V AC	<b>TWR5236</b>	
240V AC	<b>TWR5246</b>	
380V AC	<b>TWR5386</b>	
440V AC	<b>TWR546</b>	
480V AC	<b>TWR5486</b>	

#### Dimensions (mm)



Note: Finger-safe terminal cover is supplied with the transformer.

## Safety Precautions

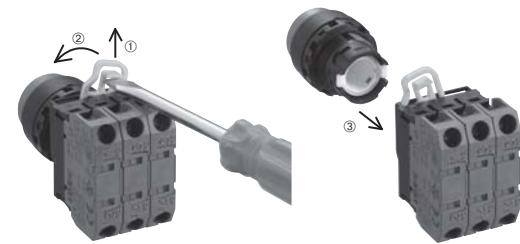
- Turn off the power to the YW series control units before starting installation, removal, wiring, maintenance, and inspection of the products. Failure to turn power off may cause electrical shocks or fire hazard.
- To avoid burning your hand, use the lamp holder tool when replacing lamps.
- For wiring, use wires of a proper size to meet the voltage and current requirements. Tighten the M3.5 terminal screws to a tightening torque of 1.0 N·m. Failure to tighten the terminal screws may cause overheating and fire.

## Instructions

### Panel Mounting

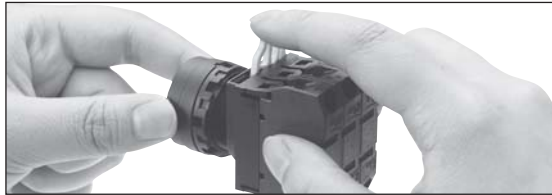
- Remove the contact block from the operator (for pilot lights, remove the transformer or full voltage unit from the pilot light). Remove the locking ring from the operator. Insert the operator into the panel cut-out from the front, tighten the locking ring from the back, then install the contact block to the operator.

### Removing and Installing the Contact Block



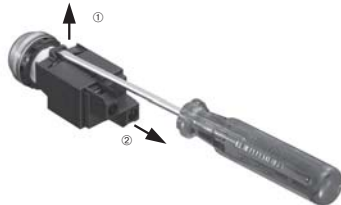
- ① Pull up the locking lever.
- ② Turn the lever to the left.
- ③ Pull out the contact block

1. To remove the operator from the contact block, pull up the locking lever and turn it to the left. Then the operator can be pulled out.
2. To reinstall, place the TOP marking on the operator and the idec marking on the contact block mounting adapter in the same direction, and insert the operator into the contact block mounting adapter. Then turn the locking lever to the right.

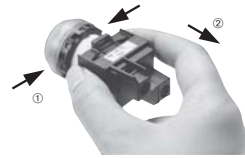


### Removing and Installing the Transformer

1. Insert a flat screwdriver (5 mm wide at maximum) into the latch hole on the transformer unit as shown in the photo below, and disengage the latch. Then pull out the operator.
2. To reinstall, place the TOP marking on the operator and the latch in the same direction, and push the operator into the transformer.



### Removing the Full Voltage Unit



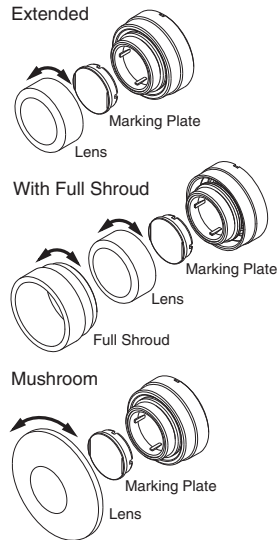
1. To remove the full voltage unit, squeeze the full voltage unit from both sides to disengage the latch as shown, and pull it out. Like the transformer unit, the full voltage unit can also be pulled out by inserting a flat screwdriver into the latch hole as shown.
2. To reinstall, place the TOP markings on the operator and the latch on the full voltage unit in the same direction, and insert the operator into the full voltage unit.

### Notes for Panel Mounting

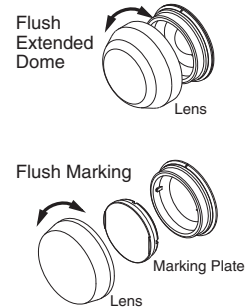
1. Use the optional locking ring wrench (MW9Z-T1) to mount the operator onto a panel. Tightening torque must not exceed 2.0 N·m. Do not use pliers. Excessive tightening will damage the locking ring.
2. For contact blocks and transformers housing LED and incandescent lamps, make sure not to press the lamps too hard, otherwise the lamp socket may be damaged.

## Insertion Order of Lens and Marking Plate

### Illuminated Pushbutton



### Pilot Light



## Marking

For YW series pilot lights and illuminated pushbuttons, legends and symbols can be engraved on built-in marking plates, or printed mylar film can be inserted under the lens for labeling purposes. Mylar film is not supplied with the control units and must be supplied by the end user.

### Built-in Marking Plate and Marking Film Size

Unit	Pilot Light	Illuminated Pushbutton
Built-in Marking Plate		
	Engraving depth: 0.5 mm maximum Marking plate material: White acrylic	
Applicable Marking Film		
	0.1-mm-thick x 2 sheets or 0.2-mm-thick x 1 sheet Film material: Mylar (recommended) Note: Marking film is not supplied with the pilot light or illuminated pushbutton.	

### Replacement (LED and incandescent lamps)

Lamps can be replaced using the lamp holder tool (OR-55) from the front of the panel, or by removing the contact block from the operator unit.

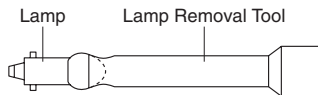
### Removing the Lamp from the Front of the Panel



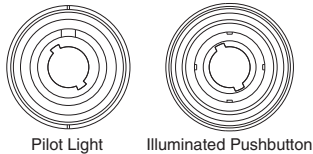
To remove, gently insert the lamp holder tool onto the lamp head. Then push slightly, and turn the lamp holder tool to the left.

### Installing the Lamp from the Front of the Panel

1. To install, insert the lamp head into the lamp holder tool, and hold the lamp as shown in the figure below.



2. Place the pins on the lamp base to the grooves in the lamp socket. Insert the lamp and turn it to the right.



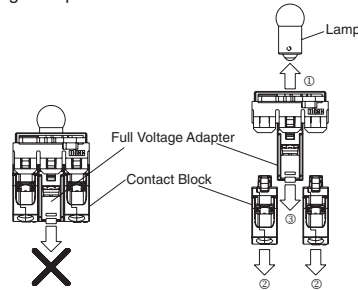
Note: LED lamps in unibody pilot lights cannot be replaced.

## Removing Contact Blocks and Full Voltage Adapters

Insert a flat screwdriver between the latch and contact block mounting adapter, and disengage the latch.



Make sure to remove the lamp and contact blocks before removing the full voltage adapter.

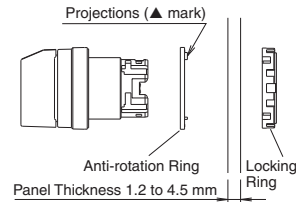


## Tightening Torque for Terminal Screws

Tighten terminal screws to a torque of 1.0 N·m.

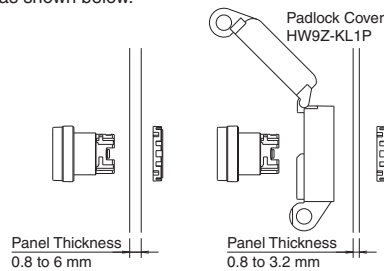
## Anti-rotation Ring and Mounting Panel

Turn the TOP marking on the operator and the ▲ mark on the anti-rotation ring to the recess on the mounting panel.



## Mounting Panel Thickness

The mounting panel must be 0.8 to 6.0 mm in thickness. When optional accessories are added, the applicable panel thickness changes as shown below.

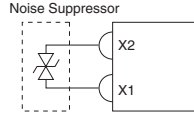


## Contact Bounce

When pressing or turning the operator, the NC and NO contacts will bounce. When designing a control circuit, take the contact bounce time into consideration (reference value: 20 ms).

## Precautions for Noise

When using the unibody pilot light in an environment where it is subjected to noise, connect a noise suppressor across terminals X1 and X2 as shown below.



## Key Selector Switch

Before operation, ensure that the key is inserted into the key hole completely. Operating the key selector switch with a loose key will cause damage to the key selector switch.

## LED Illumination

LED lamps consist of semiconductors. If the applied voltage exceeds the rated voltage, LED elements deteriorate due to overheat, resulting in significant decrease in brightness, hue change, or failure of lighting. Also, if extraneous noise, transient voltage, or transient current is applied to the circuit, similar effects will be caused. When using LED lamps, observe the following instructions.

### Rated Voltage

The LED illuminated units are rated at 6V, 12V, 24V, 110V, or 230/240V AC/DC, and can be used within  $\pm 10\%$  the rated voltage of either AC or DC, except the 230/240V AC/DC types can be used on 250V AC/DC maximum.

### DC Power

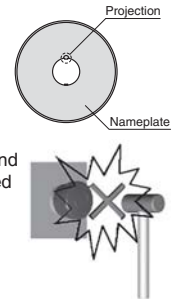
1. Switching power supply  
Regulated voltage from a switching power supply is best suited. Make sure to use within the rated voltage of the LED lamp.
2. Rechargeable battery  
Note that the battery voltage may exceed the rated voltage of the LED lamp while the battery is being charged and immediately after the charging is complete. Be sure to use the LED lamp on a voltage of  $\pm 10\%$  the rated voltage, except the 230/240V AC/DC types on 250V AC/DC maximum.
3. Full-wave rectification  
Since the LED lamp is AC/DC compatible, a diode bridge for rectification is not necessary. If the LED lamp is used on a full-wave rectification current through a diode bridge, the rectifier diodes will reduce the voltage, resulting in lower brightness.
4. Single-phase half-wave rectification  
This is not suitable for the power source of LED lamps. Use constant-voltage DC power.

### Noise

LED elements deteriorate due to extraneous noise, resulting in significant decrease in brightness, hue change, or failure of lighting. When such effects are anticipated, take a protection measure shown below, such as RC elements or a surge absorber.

## Nameplate

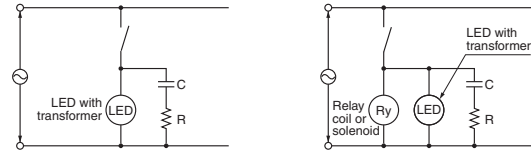
When anti-rotation is not required, remove the projection from the nameplate using pliers.



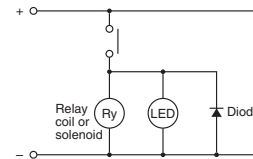
## Handling

Do not expose the switch to excessive shock and vibration, otherwise the switch may be deformed or damaged, causing malfunction or operation failure.

### [Protection Example 1] For AC circuit



### [Protection Example 2] For DC circuit

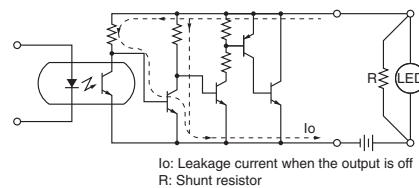


### Countermeasures against Dim Lighting

1. Leakage current through transistors or a contact protection circuit may cause the LED lamp to illuminate dimly even when the output is off.
2. When the LED lamp is illuminated by a transistor output, take the following measure.

### [Circuit Example]

Connect shunt resistor R in parallel with the LED lamp.



## Ordering Information

- When ordering, specify the Part No. and quantity.
- Replacement contact blocks are supplied in a package containing 10 pieces.



Specifications and other descriptions in this catalog are subject to change without notice.



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