

YV Series Control Units

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

- Compact and light-weight
- IP20 finger-safe screw terminals (IEC 60529)
- Metal bezel, unibody pilot lights, and key selector switches available.
- 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.

Applicable Standards	Mark	File No. or Organization
EN60947-5-1		EU Low Voltage Directive
UL508 CSA C22.2.No.44		UL/C-UL File no. E68961
GB14048.5		2004010305105297 (switches) 2006010304197809 (pilot lights)



Specifications and Ratings

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

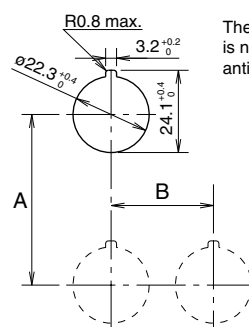
Unibody Pilot Light Ratings

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		

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	Operating extremes: 5 to 55 Hz, amplitude 0.5 mm Damage limits: 30 Hz, amplitude 1.5 mm
Shock Resistance	Operating extremes: 100 m/s ² (10G) Damage limits: 1,000 m/s ² (100G)
Mechanical Life (minimum operations)	<Pushbutton and illuminated pushbutton> Momentary: 5,000,000 (single contact block) 1,000,000 (double contact block) 250,000 (single contact block) 100,000 (double contact block) Maintained: <Selector switch and key selector switch> 250,000 (single contact block) 100,000 (double contact block)
Electrical Life (minimum operations)	100,000 (single contact block) 50,000 (double contact block)

Mounting Hole Layout



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

Unit	A (mm)	B (mm)
Pushbutton	50 min.	30 min.
Selector switch		
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.

Flush
Silhouette

Switches &
Pilot Lights

Display
Lights

LED
Illumination
Units

Display
Units

Safety
Products

Terminal
Blocks

Comm.
Terminals

AS-Interface

Relays &
Timers

Sockets

Circuit
Protectors

Power
Supplies

PLCs &
SmartRelay

Operator
Interfaces

Sensors

Control
Stations

Explosion
Protection

References

ø22 YW Series Pushbuttons

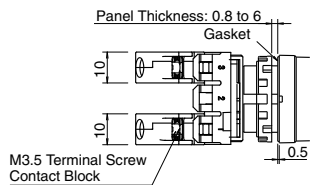
Pushbuttons with Plastic Bezel

Package Quantity: 1

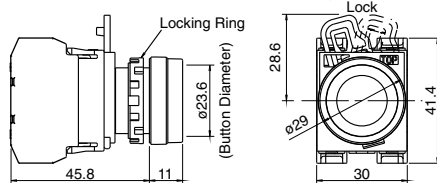
Shape	Operation	Contact	Part No.	① Button Color Code
Flush  	Momentary	1NO	YW1B-M1E10 ①	B: black G: green R: red S: blue W: white Y: yellow
		1NC	YW1B-M1E01 ①	
		2NO	YW1B-M1E20 ①	
		2NC	YW1B-M1E02 ①	
		1NO-1NC	YW1B-M1E11 ①	
		3NO	YW1B-M1E30 ①	
		3NC	YW1B-M1E03 ①	
		2NO-1NC	YW1B-M1E21 ①	
		1NO-2NC	YW1B-M1E12 ①	
	Maintained	1NO	YW1B-A1E10 ①	
		1NC	YW1B-A1E01 ①	
		2NO	YW1B-A1E20 ①	
		2NC	YW1B-A1E02 ①	
		1NO-1NC	YW1B-A1E11 ①	
Extended  	Momentary	1NO	YW1B-M2E10 ①	
		1NC	YW1B-M2E01 ①	
		2NO	YW1B-M2E20 ①	
		2NC	YW1B-M2E02 ①	
		1NO-1NC	YW1B-M2E11 ①	
	Maintained	1NO	YW1B-A2E10 ①	
		1NC	YW1B-A2E01 ①	
		2NO	YW1B-A2E20 ①	
		2NC	YW1B-A2E02 ①	
		1NO-1NC	YW1B-A2E11 ①	
Mushroom ø40mm  	Momentary	1NO	YW1B-M4E10 ①	
		1NC	YW1B-M4E01 ①	
		2NO	YW1B-M4E20 ①	
		2NC	YW1B-M4E02 ①	
		1NO-1NC	YW1B-M4E11 ①	
	Maintained	1NO	YW1B-A4E10 ①	
		1NC	YW1B-A4E01 ①	
		2NO	YW1B-A4E20 ①	
		2NC	YW1B-A4E02 ①	
		1NO-1NC	YW1B-A4E11 ①	

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

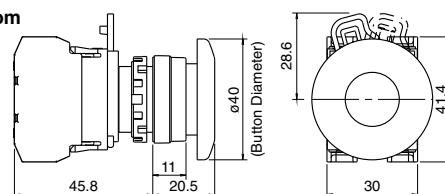
Dimensions



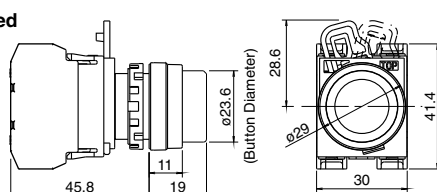
Flush



Mushroom



Extended



All dimensions in mm.

YV Series Pushbuttons ø22

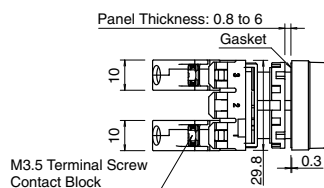
Pushbuttons with Metal Bezel

Package Quantity: 1

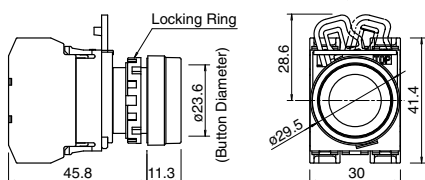
Shape	Operation	Contact	Part No.	① Button Color Code
Flush  	Momentary	1NO	YW4B-M1E10①	B: black G: green R: red S: blue W: white Y: yellow
		1NC	YW4B-M1E01①	
		2NO	YW4B-M1E20①	
		2NC	YW4B-M1E02①	
		1NO-1NC	YW4B-M1E11①	
		3NO	YW4B-M1E30①	
		3NC	YW4B-M1E03①	
		2NO-1NC	YW4B-M1E21①	
	Maintained	1NO-2NC	YW4B-M1E12①	
		1NO	YW4B-A1E10①	
		1NC	YW4B-A1E01①	
		2NO	YW4B-A1E20①	
		2NC	YW4B-A1E02①	
		1NO-1NC	YW4B-A1E11①	
Extended  	Momentary	1NO	YW4B-M2E10①	
		1NC	YW4B-M2E01①	
		2NO	YW4B-M2E20①	
		2NC	YW4B-M2E02①	
		1NO-1NC	YW4B-M2E11①	
	Maintained	1NO	YW4B-A2E10①	
		1NC	YW4B-A2E01①	
		2NO	YW4B-A2E20①	
		2NC	YW4B-A2E02①	
		1NO-1NC	YW4B-A2E11①	
Mushroom ø40mm  	Momentary	1NO	YW4B-M4E10①	B: black G: green R: red S: blue W: white Y: yellow
		1NC	YW4B-M4E01①	
		2NO	YW4B-M4E20①	
		2NC	YW4B-M4E02①	
		1NO-1NC	YW4B-M4E11①	
	Maintained	1NO	YW4B-A4E10①	
		1NC	YW4B-A4E01①	
		2NO	YW4B-A4E20①	
		2NC	YW4B-A4E02①	
		1NO-1NC	YW4B-A4E11①	

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

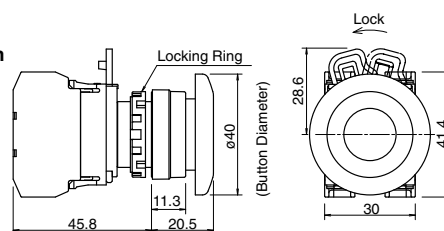
Dimensions



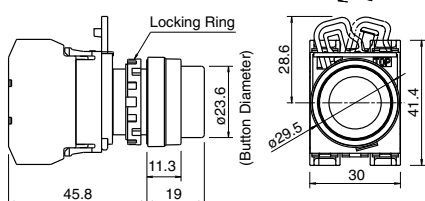
Flush



Mushroom



Extended



All dimensions in mm.

Flush
SilhouetteSwitches &
Pilot LightsDisplay
LightsLED
Illumination
UnitsDisplay
UnitsSafety
ProductsTerminal
BlocksComm.
Terminals

AS-Interface

Relays &
Timers

Sockets

Circuit
ProtectorsPower
SuppliesPLCs &
SmartRelayOperator
Interfaces

Sensors

Control
StationsExplosion
Protection

References

ø22 YW Series Pilot Lights

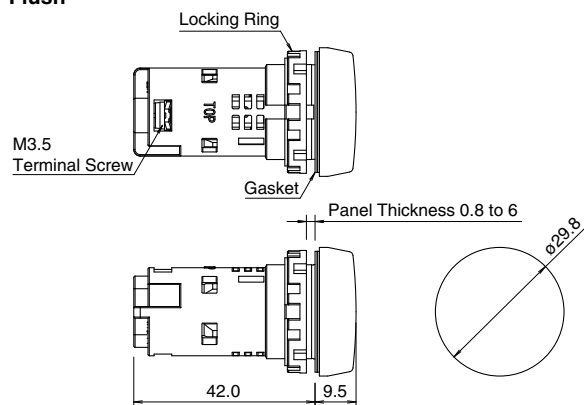
Pilot Lights (Unibody)

Package Quantity: 1

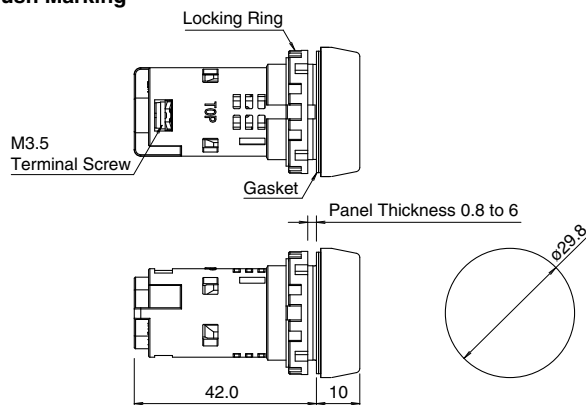
Shape	Lamp	Operating Voltage	Part No.	② Lens Color Code
Flush Full Voltage  	LED	6V AC/DC	YW1P-1UQ2②	A: amber G: green PW: pure white R: red S: blue W: white Y: yellow
		12V AC/DC	YW1P-1UQ3②	
		24V AC/DC	YW1P-1UQ4②	
		100/110V AC	YW1P-1UQH②	
		230/240V AC	YW1P-1UQM3②	
Flush Marking Full Voltage  	LED	6V AC/DC	YW1P-1BUQ2②	
		12V AC/DC	YW1P-1BUQ3②	
		24V AC/DC	YW1P-1BUQ4②	
		100/110V AC	YW1P-1BUQH②	
		230/240V AC	YW1P-1BUQM3②	
Extended Full Voltage  	LED	6V AC/DC	YW1P-2TUQ2②	
		12V AC/DC	YW1P-2TUQ3②	
		24V AC/DC	YW1P-2TUQ4②	
		100/110V AC	YW1P-2TUQH②	
		230/240V AC	YW1P-2TUQM3②	
Dome Full Voltage  	LED	6V AC/DC	YW1P-2UQ2②	
		12V AC/DC	YW1P-2UQ3②	
		24V AC/DC	YW1P-2UQ4②	
		100/110V AC	YW1P-2UQH②	
		230/240V AC	YW1P-2UQM3②	

Dimensions

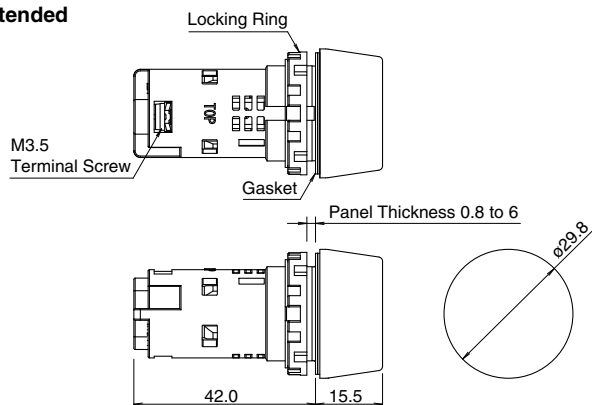
Flush



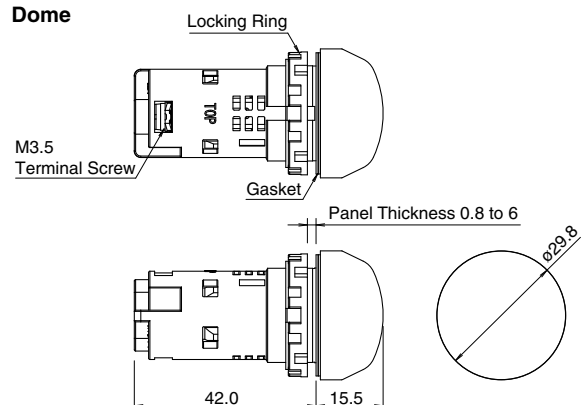
Flush Marking



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
Flush Full Voltage  	Without Lamp	250V AC/DC max.	YW1P-1EQ0 ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow)
	LED	6V AC/DC	YW1P-1EQ2 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	YW1P-1EQ3 ②	
		24V AC/DC	YW1P-1EQ4 ②	
		110/120V AC/DC	YW1P-1EQH ②	
		230/240V AC/DC	YW1P-1EQM3 ②	
	Incandescent	6V AC/DC	YW1P-1EQ5 ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T③
		12V AC/DC	YW1P-1EQ6 ②	
		24V AC/DC	YW1P-1EQ7 ②	
Flush Transformer  	LED	100/110V AC	YW1P-1EH2 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	YW1P-1EM2 ②	
		115/120V AC	YW1P-1EH22 ②	
		230/240V AC	YW1P-1EM42 ②	
	Incandescent	100/110V AC	YW1P-1EH5 ②	A (amber), C (clear), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T6
		200/220V AC	YW1P-1EM5 ②	
		115/120V AC	YW1P-1EH25 ②	
		230/240V AC	YW1P-1EM45 ②	
Flush Marking Full Voltage  	Without Lamp	250V AC/DC max.	YW1P-1BEQ0 ②	A (amber), G (green), R (red), S (blue), W (white), Y (yellow)
	LED	6V AC/DC	YW1P-1BEQ2 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	YW1P-1BEQ3 ②	
		24V AC/DC	YW1P-1BEQ4 ②	
		110/120V AC/DC	YW1P-1BEQH ②	
		230/240V AC/DC	YW1P-1BEQM3 ②	
	Incandescent	6V AC/DC	YW1P-1BEQ5 ②	A (amber), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T③
		12V AC/DC	YW1P-1BEQ6 ②	
		24V AC/DC	YW1P-1BEQ7 ②	
Flush Marking Transformer  	LED	100/110V AC	YW1P-1BEH2 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	YW1P-1BEM2 ②	
		115/120V AC	YW1P-1BEH22 ②	
		230/240V AC	YW1P-1BEM42 ②	
	Incandescent	100/110V AC	YW1P-1BEH5 ②	A (amber), G (green), R (red), S (blue), W (white), Y (yellow) Built-in incandescent lamp: LS-T6
		200/220V AC	YW1P-1BEM5 ②	
		115/120V AC	YW1P-1BEH25 ②	
		230/240V AC	YW1P-1BEM45 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.

Flush Silhouette

Switches & Pilot Lights

Display Lights

LED Illumination Units

Display Units

Safety Products

Terminal Blocks

Comm. Terminals

AS-Interface

Relays & Timers

Sockets

Circuit Protectors

Power Supplies

PLCs & SmartRelay

Operator Interfaces

Sensors

Control Stations

Explosion Protection

References

ø22 YW Series Pilot Lights

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

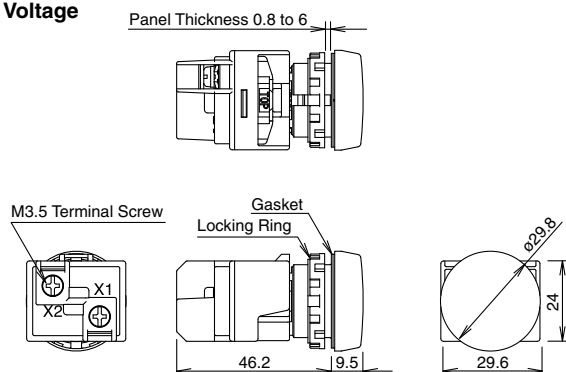
Note: Specify a lens color code in place of ② in the Part No.
Clear lenses are used for PW (pure white) illumination of pilot lights.

YV Series Pilot Lights ø22

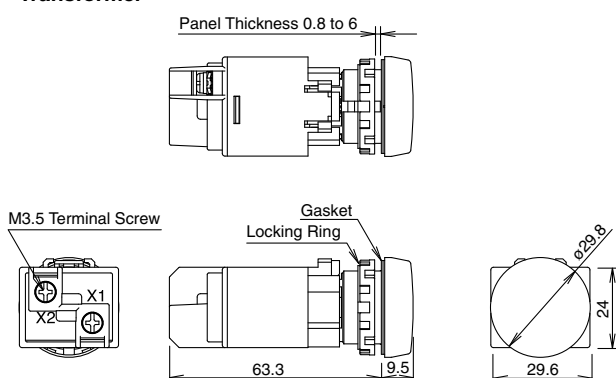
Dimensions (Pilot Lights with Removable Contact Block)

Flush

Full Voltage

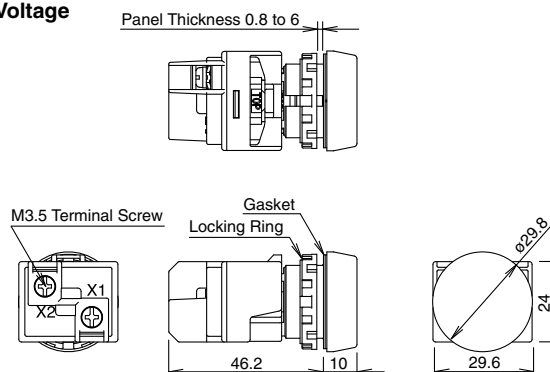


Transformer

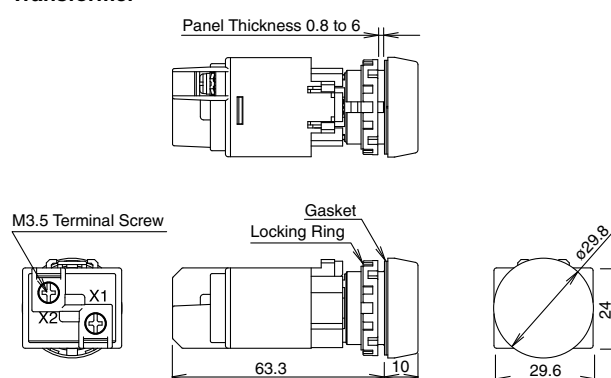


Flush Marking

Full Voltage

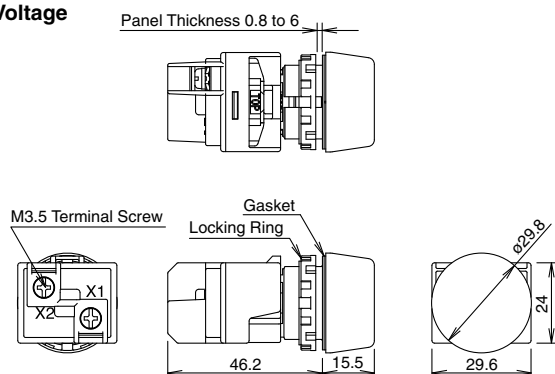


Transformer

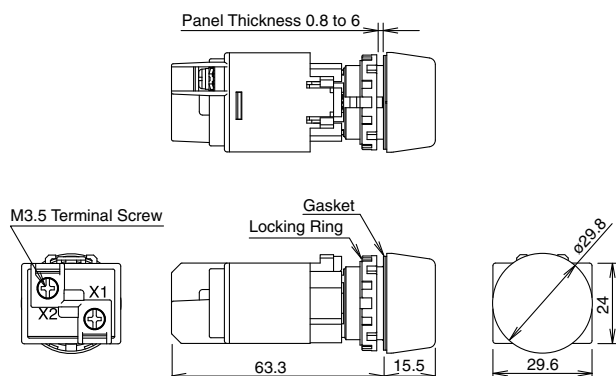


Extended

Full Voltage

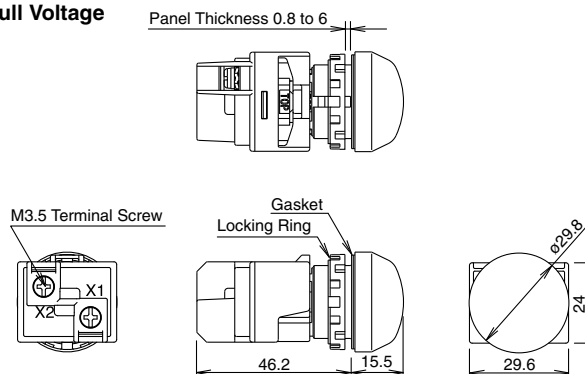


Transformer

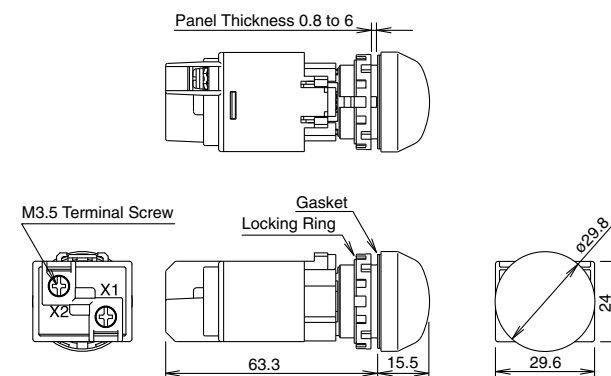


Dome

Full Voltage



Transformer

Flush
SilhouetteSwitches &
Pilot LightsDisplay
LightsLED
Illumination
UnitsDisplay
UnitsSafety
ProductsTerminal
BlocksComm.
Terminals

AS-Interface

Relays &
Timers

Sockets

Circuit
ProtectorsPower
SuppliesPLCs &
SmartRelayOperator
Interfaces

Sensors

Control
StationsExplosion
Protection

References

ø22 YW Series Illuminated Pushbuttons

Illuminated Pushbuttons with Plastic Bezel

Package Quantity: 1

Shape	Lamp	Operation	Contact	Part No.	③ Operating Voltage Code	② Lens Color Code
Extended  	Without Lamp	Momentary	1NO	YW1L-M2E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow
			1NC	YW1L-M2E01Q0②		
			2NO	YW1L-M2E20Q0②		
			2NC	YW1L-M2E02Q0②		
			1NO-1NC	YW1L-M2E11Q0②		
		Maintained	1NO	YW1L-A2E10Q0②		
			1NC	YW1L-A2E01Q0②		
			2NO	YW1L-A2E20Q0②		
			2NC	YW1L-A2E02Q0②		
			1NO-1NC	YW1L-A2E11Q0②		
	LED	Momentary	1NO	YW1L-M2E10Q③②	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
			1NC	YW1L-M2E01Q③②		
			2NO	YW1L-M2E20Q③②		
			2NC	YW1L-M2E02Q③②		
			1NO-1NC	YW1L-M2E11Q③②		
		Maintained	1NO	YW1L-A2E10Q③②		
			1NC	YW1L-A2E01Q③②		
			2NO	YW1L-A2E20Q③②		
			2NC	YW1L-A2E02Q③②		
			1NO-1NC	YW1L-A2E11Q③②		
	Incandescent	Momentary	1NO	YW1L-M2E10Q③②	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	YW1L-M2E01Q③②		
			2NO	YW1L-M2E20Q③②		
			2NC	YW1L-M2E02Q③②		
			1NO-1NC	YW1L-M2E11Q③②		
		Maintained	1NO	YW1L-A2E10Q③②		
			1NC	YW1L-A2E01Q③②		
			2NO	YW1L-A2E20Q③②		
			2NC	YW1L-A2E02Q③②		
			1NO-1NC	YW1L-A2E11Q③②		
Extended with Full Shroud  	Without Lamp	Momentary	1NO	YW1L-MF2E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow
			1NC	YW1L-MF2E01Q0②		
			2NO	YW1L-MF2E20Q0②		
			2NC	YW1L-MF2E02Q0②		
			1NO-1NC	YW1L-MF2E11Q0②		
		Maintained	1NO	YW1L-AF2E10Q0②		
			1NC	YW1L-AF2E01Q0②		
			2NO	YW1L-AF2E20Q0②		
			2NC	YW1L-AF2E02Q0②		
			1NO-1NC	YW1L-AF2E11Q0②		
	LED	Momentary	1NO	YW1L-MF2E10Q③②	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
			1NC	YW1L-MF2E01Q③②		
			2NO	YW1L-MF2E20Q③②		
			2NC	YW1L-MF2E02Q③②		
			1NO-1NC	YW1L-MF2E11Q③②		
		Maintained	1NO	YW1L-AF2E10Q③②		
			1NC	YW1L-AF2E01Q③②		
			2NO	YW1L-AF2E20Q③②		
			2NC	YW1L-AF2E02Q③②		
			1NO-1NC	YW1L-AF2E11Q③②		
	Incandescent	Momentary	1NO	YW1L-MF2E10Q③②	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	YW1L-MF2E01Q③②		
			2NO	YW1L-MF2E20Q③②		
			2NC	YW1L-MF2E02Q③②		
			1NO-1NC	YW1L-MF2E11Q③②		
		Maintained	1NO	YW1L-AF2E10Q③②		
			1NC	YW1L-AF2E01Q③②		
			2NO	YW1L-AF2E20Q③②		
			2NC	YW1L-AF2E02Q③②		
			1NO-1NC	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.

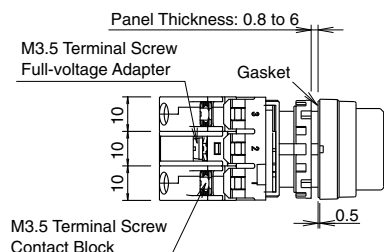
YW Series Illuminated Pushbuttons ø22

Shape	Lamp	Operation	Contact	Part No.	③ Operating Voltage Code	② Lens Color Code
 	Without Lamp	Momentary	1NO	YW1L-M4E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow
			1NC	YW1L-M4E01Q0②		
			2NO	YW1L-M4E20Q0②		
			2NC	YW1L-M4E02Q0②		
		Maintained	1NO-1NC	YW1L-M4E11Q0②		
			1NO	YW1L-A4E10Q0②		
			1NC	YW1L-A4E01Q0②		
			2NO	YW1L-A4E20Q0②		
			2NC	YW1L-A4E02Q0②		
			1NO-1NC	YW1L-A4E11Q0②		
	LED	Momentary	1NO	YW1L-M4E10Q③②	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
			1NC	YW1L-M4E01Q③②		
			2NO	YW1L-M4E20Q③②		
			2NC	YW1L-M4E02Q③②		
		Maintained	1NO-1NC	YW1L-M4E11Q③②		
			1NO	YW1L-A4E10Q③②		
			1NC	YW1L-A4E01Q③②		
			2NO	YW1L-A4E20Q③②		
			2NC	YW1L-A4E02Q③②		
			1NO-1NC	YW1L-A4E11Q③②		
	Incandescent	Momentary	1NO	YW1L-M4E10Q③②	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	YW1L-M4E01Q③②		
			2NO	YW1L-M4E20Q③②		
			2NC	YW1L-M4E02Q③②		
		Maintained	1NO-1NC	YW1L-M4E11Q③②		
			1NO	YW1L-A4E10Q③②		
			1NC	YW1L-A4E01Q③②		
			2NO	YW1L-A4E20Q③②		
			2NC	YW1L-A4E02Q③②		
			1NO-1NC	YW1L-A4E11Q③②		

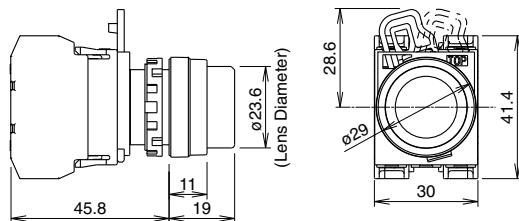
Note: Specify a lens color code in place of ② in the Part No.

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

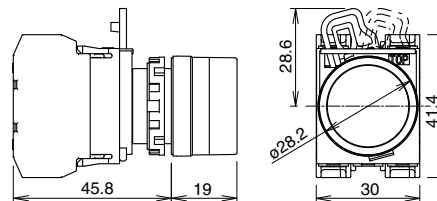
Dimensions (Illuminated Pushbuttons with Plastic Bezel)



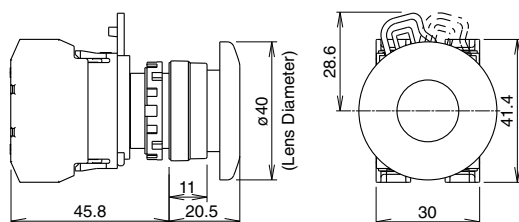
Extended



Extended with Full Shroud



Mushroom



All dimensions in mm.

Flush
Silhouette

Switches &
Pilot Lights

Display
Lights

LED
Illumination
Units

Display
Units

Safety
Products

Terminal
Blocks

Comm.
Terminals

AS-Interface

Relays &
Timers

Sockets

Circuit
Protectors

Power
Supplies

PLCs &
SmartRelay

Operator
Interfaces

Sensors

Control
Stations

Explosion
Protection

References

ø22 YW Series Illuminated Pushbuttons

Illuminated Pushbuttons with Metal Bezel

Package Quantity: 1

Shape	Lamp	Operation	Contact	Part No.	③ Operating Voltage Code	② Lens Color Code
Extended  	Without Lamp	Momentary	1NO	YW4L-M2E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow
			1NC	YW4L-M2E01Q0②		
			2NO	YW4L-M2E20Q0②		
			2NC	YW4L-M2E02Q0②		
			1NO-1NC	YW4L-M2E11Q0②		
		Maintained	1NO	YW4L-A2E10Q0②		
			1NC	YW4L-A2E01Q0②		
			2NO	YW4L-A2E20Q0②		
			2NC	YW4L-A2E02Q0②		
			1NO-1NC	YW4L-A2E11Q0②		
	LED	Momentary	1NO	YW4L-M2E10Q③②	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
			1NC	YW4L-M2E01Q③②		
			2NO	YW4L-M2E20Q③②		
			2NC	YW4L-M2E02Q③②		
			1NO-1NC	YW4L-M2E11Q③②		
		Maintained	1NO	YW4L-A2E10Q③②		
			1NC	YW4L-A2E01Q③②		
			2NO	YW4L-A2E20Q③②		
			2NC	YW4L-A2E02Q③②		
			1NO-1NC	YW4L-A2E11Q③②		
	Incandescent	Momentary	1NO	YW4L-M2E10Q③②	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	YW4L-M2E01Q③②		
			2NO	YW4L-M2E20Q③②		
			2NC	YW4L-M2E02Q③②		
			1NO-1NC	YW4L-M2E11Q③②		
		Maintained	1NO	YW4L-A2E10Q③②		
			1NC	YW4L-A2E01Q③②		
			2NO	YW4L-A2E20Q③②		
			2NC	YW4L-A2E02Q③②		
			1NO-1NC	YW4L-A2E11Q③②		
Extended with Full Shroud  	Without Lamp	Momentary	1NO	YW4L-MF2E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow
			1NC	YW4L-MF2E01Q0②		
			2NO	YW4L-MF2E20Q0②		
			2NC	YW4L-MF2E02Q0②		
			1NO-1NC	YW4L-MF2E11Q0②		
		Maintained	1NO	YW4L-AF2E10Q0②		
			1NC	YW4L-AF2E01Q0②		
			2NO	YW4L-AF2E20Q0②		
			2NC	YW4L-AF2E02Q0②		
			1NO-1NC	YW4L-AF2E11Q0②		
	LED	Momentary	1NO	YW4L-MF2E10Q③②	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
			1NC	YW4L-MF2E01Q③②		
			2NO	YW4L-MF2E20Q③②		
			2NC	YW4L-MF2E02Q③②		
			1NO-1NC	YW4L-MF2E11Q③②		
		Maintained	1NO	YW4L-AF2E10Q③②		
			1NC	YW4L-AF2E01Q③②		
			2NO	YW4L-AF2E20Q③②		
			2NC	YW4L-AF2E02Q③②		
			1NO-1NC	YW4L-AF2E11Q③②		
	Incandescent	Momentary	1NO	YW4L-MF2E10Q③②	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	YW4L-MF2E01Q③②		
			2NO	YW4L-MF2E20Q③②		
			2NC	YW4L-MF2E02Q③②		
			1NO-1NC	YW4L-MF2E11Q③②		
		Maintained	1NO	YW4L-AF2E10Q③②		
			1NC	YW4L-AF2E01Q③②		
			2NO	YW4L-AF2E20Q③②		
			2NC	YW4L-AF2E02Q③②		
			1NO-1NC	YW4L-AF2E11Q③②		

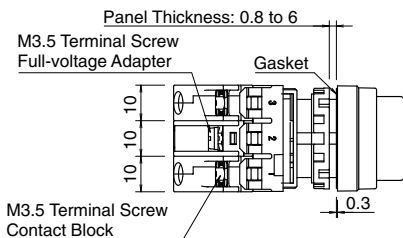
Note: Specify a lens color code in place of ② in the Part No.
Specify an operating voltage code in place of ③ in the Part No.

YV Series Illuminated Pushbuttons ø22

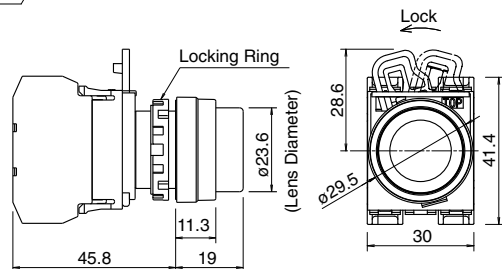
Shape	Lamp	Operation	Contact	Part No.	③ Operating Voltage Code	② Lens Color Code
 	Without Lamp	Momentary	1NO	YW4L-M4E10Q0②	0: without lamp 250V AC/DC max.	A: amber G: green R: red S: blue W: white Y: yellow
			1NC	YW4L-M4E01Q0②		
			2NO	YW4L-M4E20Q0②		
			2NC	YW4L-M4E02Q0②		
		Maintained	1NO-1NC	YW4L-M4E11Q0②		
			1NO	YW4L-A4E10Q0②		
			1NC	YW4L-A4E01Q0②		
			2NO	YW4L-A4E20Q0②		
			2NC	YW4L-A4E02Q0②		
			1NO-1NC	YW4L-A4E11Q0②		
	LED	Momentary	1NO	YW4L-M4E10Q③②	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
			1NC	YW4L-M4E01Q③②		
			2NO	YW4L-M4E20Q③②		
			2NC	YW4L-M4E02Q③②		
		Maintained	1NO-1NC	YW4L-M4E11Q③②		
			1NO	YW4L-A4E10Q③②		
			1NC	YW4L-A4E01Q③②		
			2NO	YW4L-A4E20Q③②		
			2NC	YW4L-A4E02Q③②		
			1NO-1NC	YW4L-A4E11Q③②		
	Incandescent	Momentary	1NO	YW4L-M4E10Q③②	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	YW4L-M4E01Q③②		
			2NO	YW4L-M4E20Q③②		
			2NC	YW4L-M4E02Q③②		
		Maintained	1NO-1NC	YW4L-M4E11Q③②		
			1NO	YW4L-A4E10Q③②		
			1NC	YW4L-A4E01Q③②		
			2NO	YW4L-A4E20Q③②		
			2NC	YW4L-A4E02Q③②		
			1NO-1NC	YW4L-A4E11Q③②		

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.

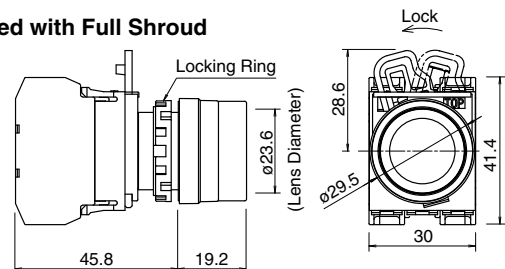
Dimensions (Illuminated Pushbutton with Metal Bezel)



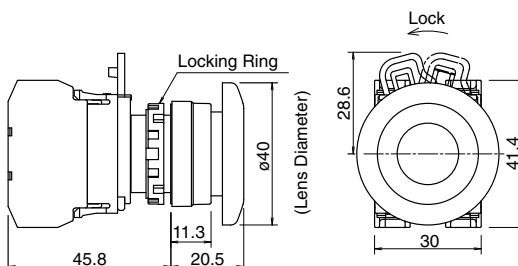
Extended



Extended with Full Shroud



Mushroom



All dimensions in mm.

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	—	—		
90° 2-Position L R	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	NO			●						
	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		
45° 3-Position L C R	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	NC			■	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					YW1S-3E11N3	YW1S-31E11N3	YW1S-32E11N3	YW1S-33E11N3		
		2	NC			●						
		3	NO			●						
	1NO-1NC (11N4)	1					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	NC			■	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					
											
						  					
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		●		YW4S-2E10	YW4S-21E10	—	—	
		2									
		3									
	1NC (01)	1						YW4S-2E01	YW4S-21E01	—	—
		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		●		YW4S-2E30	YW4S-21E30	—	—	
		2	NO		●						
		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					
45° 3-Position 	2NO (20)	1	NO	●			YW4S-3E20	YW4S-31E20	YW4S-32E20	YW4S-33E20	
		2									
		3	NO								●
	2NO (20N1)	1						YW4S-3E20N1	YW4S-31E20N1	YW4S-32E20N1	YW4S-33E20N1
		2	NO	●			●				
		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						YW4S-3E11N3	YW4S-31E11N3	YW4S-32E11N3	YW4S-33E11N3
		2	NC		●						
		3	NO				●				
	1NO-1NC (11N4)	1						YW4S-3E11N4	YW4S-31E11N4	YW4S-32E11N4	YW4S-33E11N4
		2	NO	●			●				
		3	NC								
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									

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ø22 YW Series Selector Switches

Contact Block Mounting Position

Selector Switch with Plastic Bezel

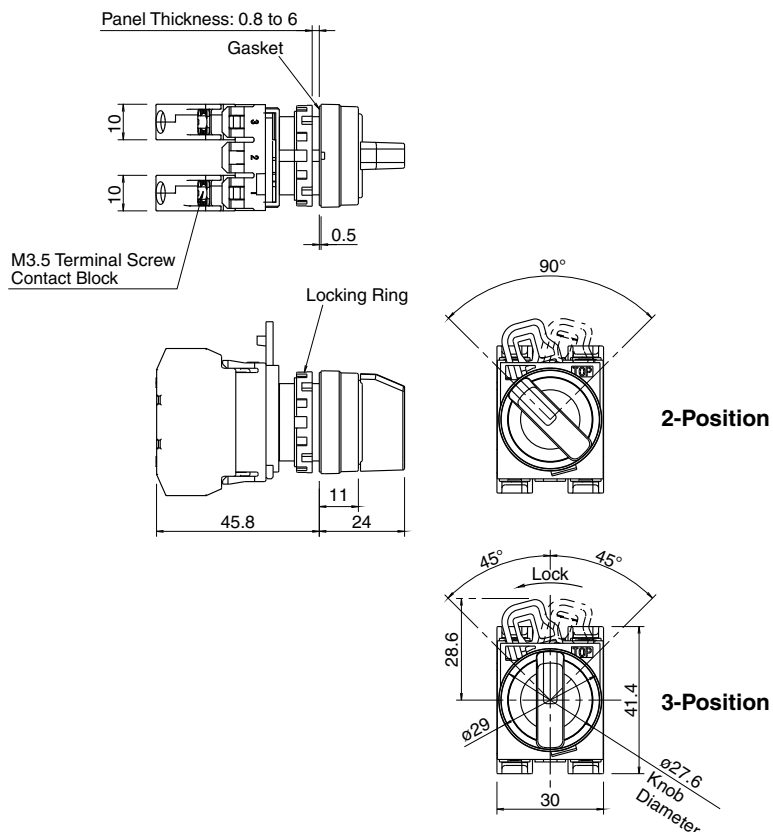
Contact Block
Mounting Position



L C R
Operator Position

Dimensions

Selector Switch with Plastic Bezel



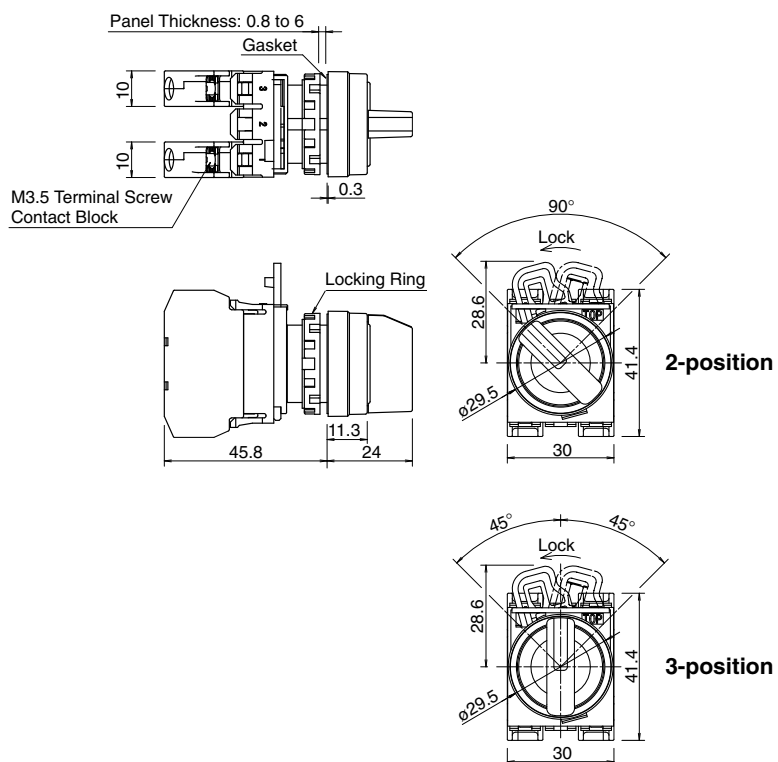
Selector Switch with Metal Bezel

Contact Block
Mounting Position



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		●	 C-UL LISTED CE CCC	 C-UL LISTED CE CCC
		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 the ordering information shown on page 282.
- Each key selector switch is supplied with two identical keys.

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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	●			 UL LISTED CE CCC	 UL LISTED CE CCC
		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 NO	●		●	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



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 282.
- Each key selector switch is supplied with two identical keys.

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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	●			 	 
		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 282.
- 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 the ordering information shown on page 282.
- Each key selector switch is supplied with two identical keys.

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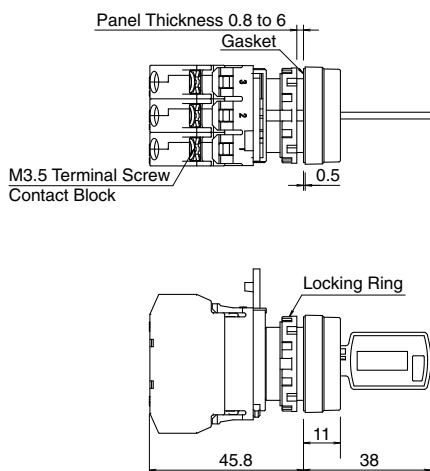
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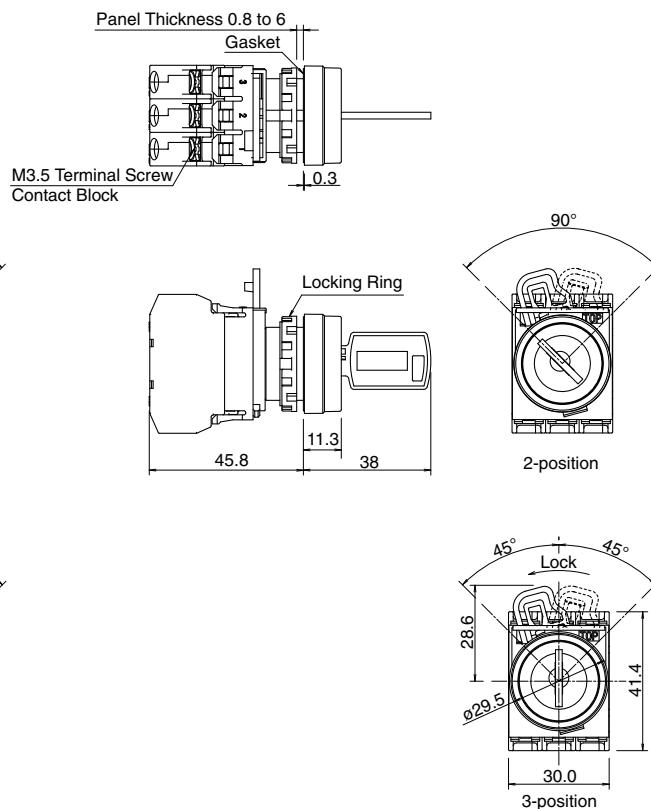
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Dimensions (Key Selector Switch)

Plastic Bezel

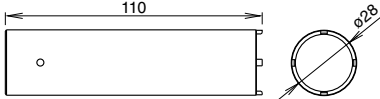
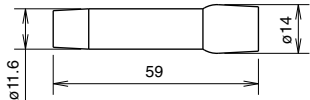
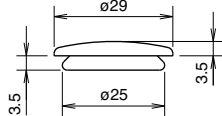
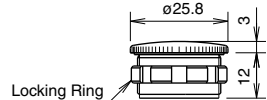
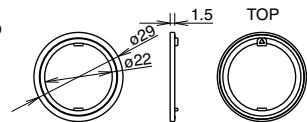


Metal Bezel



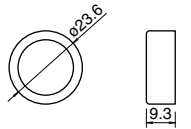
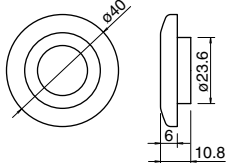
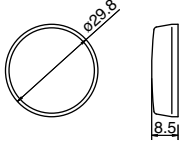
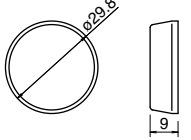
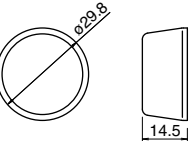
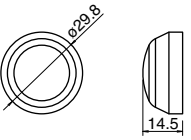
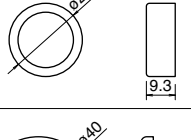
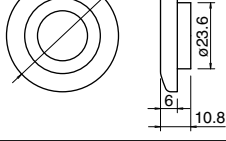
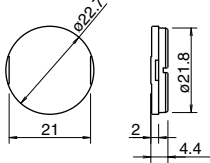
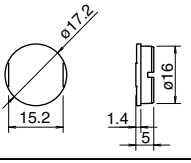
All dimensions in mm.

Accessories

Name & Shape	Part No.	Description & Dimensions (mm)	Package Quantity
	MW9Z-T1	Metallic tool used to tighten the plastic locking ring when installing the YW series control unit in a panel. 	1
	OR-55	Made of rubber. Used for replacing lamps. 	1
	OB-31PN05	Used for plugging unused mounting holes in the panel. Color: Black 	5
	LW9Z-BM	Used for plugging unused mounting holes in the panel. Weight: Approx. 18g 	1
	HW9Z-RLPN10	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

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	YW9Z-B12①PN10	B: black G: green R: red S: blue W: white Y: yellow		10
	Mushroom ø40mm	YW9Z-B14①PN10			
Lens (for pilot lights)	Flush	YW9Z-PL11②PN10	A: amber C: clear G: green R: red S: blue W: white Y: yellow		10
	Flush Marking	YW9Z-PL11B②PN10	A: amber C: clear G: green R: red S: blue Y: yellow		10
	Extended	YW9Z-PL12T②PN10	A: amber C: clear G: green R: red S: blue W: white Y: yellow		10
	Dome	YW9Z-PL12②PN10	A: amber C: clear G: green R: red S: blue W: white Y: yellow		10
Lens (for illuminated pushbuttons)	Extended	YW9Z-L12②PN10	A: amber C: clear G: green R: red S: blue Y: yellow		10
	Mushroom ø40mm	YW9Z-L14②PN10			
Marking Plate (for pilot lights)	—	YW9Z-PP12PN10	—		10
Marking Plate (for illuminated pushbuttons)	—	YW9Z-P12PN10	—		10

Nameplates

HWAM, HWAQ, HWAS, and HWAV

Type	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	

Making Plate

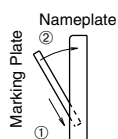
Description	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)
HWNP	Aluminum (black) 1.0 mm thick	HWNP-*	HWNP-*	1	• White legend on black background.
			HWNP-*PN10	10	

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

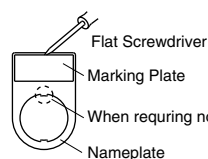
Legends

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.



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

Flush
SilhouetteSwitches &
Pilot LightsDisplay
LightsLED
Illumination
UnitsDisplay
UnitsSafety
ProductsTerminal
BlocksComm.
Terminals

AS-Interface

Relays &
Timers

Sockets

Circuit
ProtectorsPower
SuppliesPLCs &
SmartRelayOperator
Interfaces

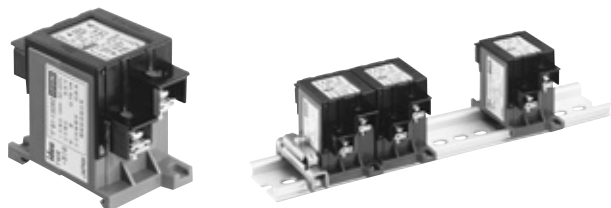
Sensors

Control
StationsExplosion
Protection

References

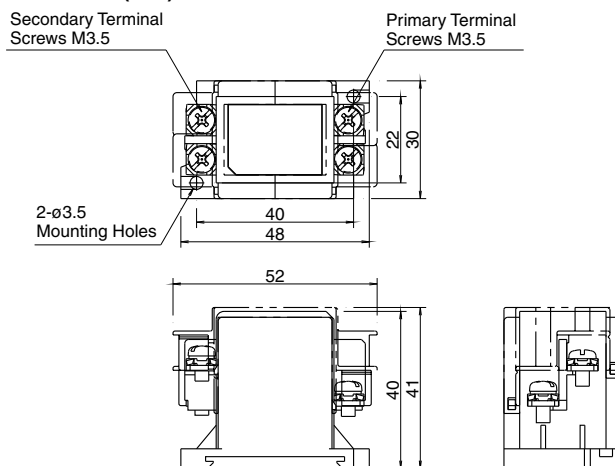
Transformer

Din Rail Mount Transformer For 6V



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

Dimensions (mm)



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

Safety Precautions

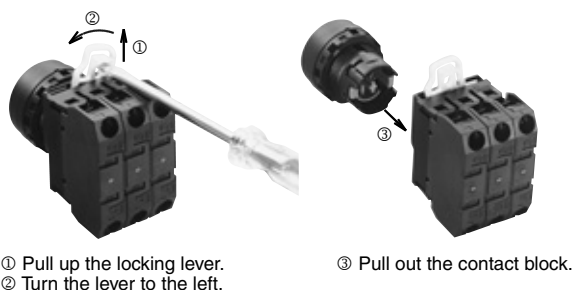
- Turn off the power to the YW series control units before starting installation, removal, wiring, maintenance, and inspection of the products. Failure to turn power off may cause electrical shocks or fire hazard.
- To avoid burning your hand, use the lamp holder tool when replacing lamps.
- For wiring, 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

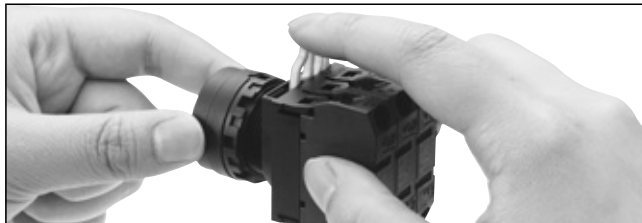
Panel Mounting

- 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

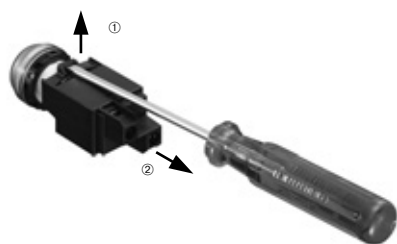


1. To remove the operator from the contact block, pull up the locking lever and turn it to the left. Then the operator can be pulled out.
2. To reinstall, place the TOP marking on the operator and the idec marking on the contact block mounting adapter in the same direction, and insert the operator into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

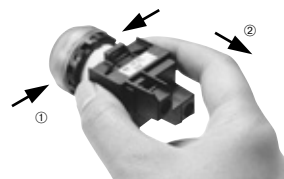


Removing and Installing the Transformer

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



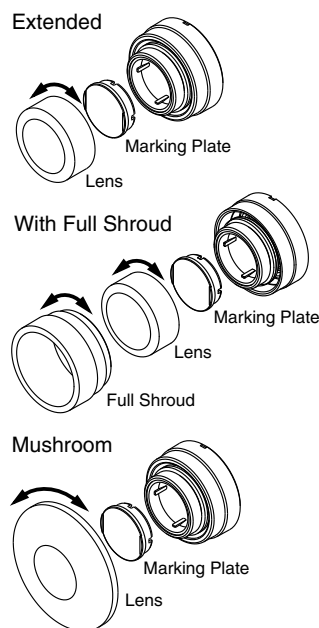
1. To remove the full voltage unit, squeeze the full voltage unit from both sides to disengage the latch as shown, and pull it out. Like the transformer unit, the full voltage unit can also be pulled out by inserting a flat screwdriver into the latch hole as shown.
2. To reinstall, place the TOP markings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

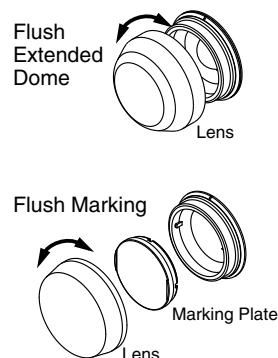
1. Use the optional locking ring wrench (MW9Z-T1) to mount the operator onto a panel. Tightening torque must not exceed 2.0 N·m. Do not use pliers. Excessive tightening will damage the locking ring.
2. For contact blocks and transformers housing LED and incandescent lamps, make sure not to press the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

Insertion Order of Lens and Marking Plate

Illuminated Pushbutton



Pilot Light



Flush Silhouette

Switches & Pilot Lights

Display Lights

LED Illumination Units

Display Units

Safety Products

Terminal Blocks

Comm. Terminals

AS-Interface

Relays & Timers

Sockets

Circuit Protectors

Power Supplies

PLCs & SmartRelay

Operator Interfaces

Sensors

Control Stations

Explosion Protection

References

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 × 2 sheets or 0.2-mm-thick × 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.

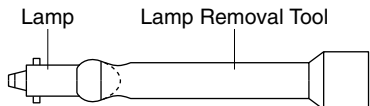
Removing the Lamp from the Front of the Panel



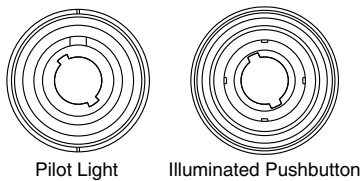
To remove, gently insert the lamp holder tool onto the lamp head. Then push slightly, and turn the lamp holder tool to the left.

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.



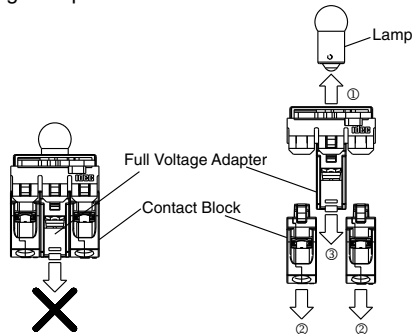
Note: LED lamps in unibody pilot lights cannot be replaced.

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.

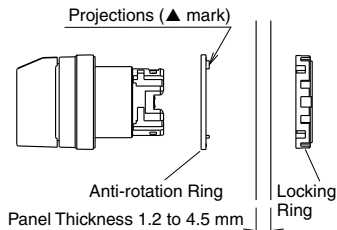


Tightening Torque for Terminal Screws

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

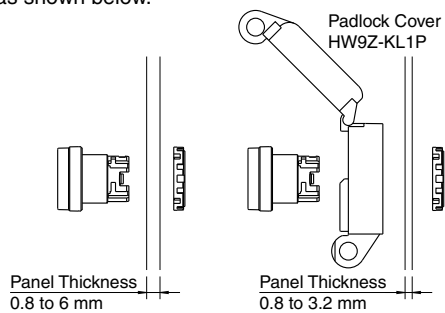
Anti-rotation Ring and Mounting Panel

Turn the TOP marking on the operator and the ▲ mark on the antirotation 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.

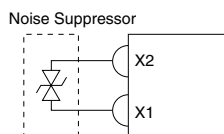


Contact Bounce

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

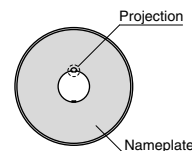
1. Switching power supply
Regulated voltage from a switching power supply is best suited. Make sure to use within the rated voltage of the LED lamp.
2. Rechargeable battery
Note that the battery voltage may exceed the rated voltage of the LED lamp while the battery is being charged and immediately after 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.

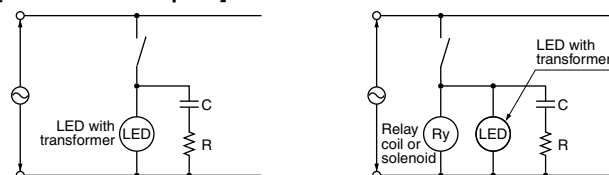


Handling

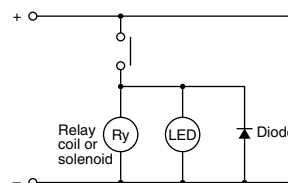
Do not expose the switch to excessive shock and vibration, otherwise the switch may be deformed or damaged, causing malfunction or operation failure.



[Protection Example 1] For AC circuit



[Protection Example 2] For DC circuit

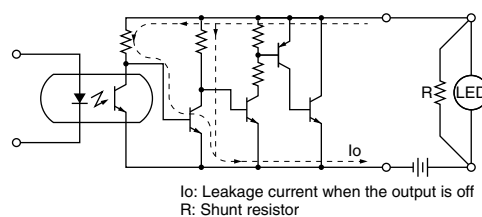


Countermeasures against Dim Lighting

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.

Flush Silhouette

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