# Flush Silhouette Switches

# Ø22 CW Series



# Sleek and stylish switches and pilot lights with a 2.5 mm-thick bezel

The CW series gives a sleek, stylish image to your machines or control panels. The surface is safer with less chance of unexpected operation or accidents by hitting the projections, and also is cleaner with less dust build-up.



• See website for details on approvals and standards.

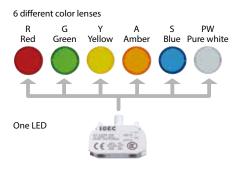
#### LED illuminated unit

#### First in the industry

#### Six different colors with a single LED

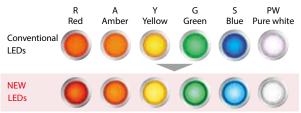
Previously, 5 different color LEDs were required but with the new illuminated unit, only a single LED is used.Only the lens needs to be replaced to change the illumination color.

The new LED reduces maintenance time, makes stock control easier, and is environmentally friendly.



#### High visibility with new LED

Brighter and clearer compared to conventional LEDS.



#### IS03864-4 Safety color compliant

(Corresponding colors: R (Red), Y (Yellow), G (Green), PW (Pure white)) Safety colors are defined with ISO standards. The bright and clears colors are suited for emergency situations.



Green

Red

Yellow

Blue

White

Metallic

Black (plastic)

Black

#### **Double contact blocks**

Double contact blocks with four-contact configurations. (Illuminated pushbuttons, pushbuttons, selector switches, key selector switches)

Double contact blocks



Single contact blocks



2.5 mm-thick

bezel

#### Compact and shortest in its class

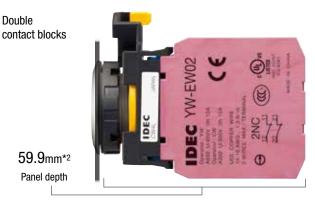
Single

contact blocks

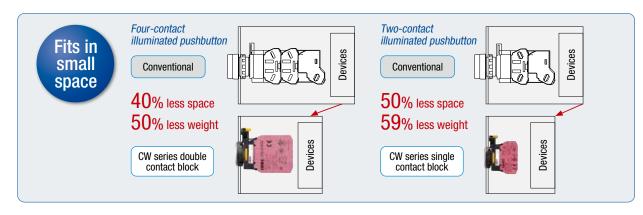
39.9mm\*1 Panel depth

Short depth behind the panel for compact equipment. Double: 59.9 mm<sup>\*2</sup> (maintained: 64.6 mm) Single: 39.9 mm<sup>\*1</sup> (maintained: 44.6 mm)

Switching capacity is 120V AC, 10A (resistive load). The compact style requires less depth behind the panel. Can be used with IDEC's FB and other 22 mm control boxes. No transformer needed for any voltage.



\*1 Maintained types: 44.6mm \*2 Maintained types: 64.6mm



# Safety

## Third-generation safety construction

#### Two-action removal of contact blocks

IDEC's original two-action push-turn locking lever provides a higher level of safety by preventing unexpected release of the locking lever. Whether the contact block is installed securely can be checked easily from the back of the panel, with the position of the locking lever.

#### Locking lever integrated with guard

Prevents locking lever from unexpected release or damage by trapped wires.



**IP20 Finger-safe Terminal** Finger-safe, IP20 terminal prevents electrical shock.



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Switches Safety Products

Explosion Proof

Terminal Blocks

Relays & Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors AUTO-ID

 Flush Silhouette

 Ø16

 Ø22

 Ø30

 Miniature

 Pilot Lights

CW
LW-F
LB
LBW
UP
Flush Bezel



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LED Illumina Control

> Operator Interfaces

> > LW-F

LB LBW

UP

Flush Bezel

# **Ø22 CW** Series Flush Silhouette Switches

# Flush bezel projects only 2.5 mm from front of panel Only 39.9 mm depth behind the panel (except single contact block, momentary).

- ø22.3 mm mounting hole compliant with IEC 60947-5-1
- 3.5-mm operator travel for pushbuttons ensures comfortable and reliable operation.
- Black plastic and metallic bezels available.
- Four-contact configuration is available with double contact blocks.
- Direct opening NC contact ensures shutdown without failure.
- Seven different keys can be chosen for key selector swiches.
- 10A contact rating. Up to three contact blocks for non-illuminated and two contact blocks for illuminated units can be connected.
- · Contact blocks can be removed by the two-action locking lever integrated with a guard, ensuring safety.
- IP20 finger-safe screw terminals
- IP66/67, UL Type 4X degree of protection from panel front (see Table 1).

ys & Sockets	Applicable Standards	Mark	File No. or Organization
Circuit Protectors ver Supplies	UL508 CSA C22.2 No.14		UL/c-UL File No. E68961
Illumination	EN60947-5-1	()	EU Low Voltage Directive
Controllers	GB14048.5	۲	No. 2012010305589209 (Pilot lights: No. 2012010304567962)

# **Contact Ratings**

Sensors							
Selisois	Rated Insulation Voltage (Ui)			300V			
AUTO-ID	Rated Thermal Current (Ith)			10A			
	Rated Operating Voltage (Ue)			24V	120V	240V	
			AC	Resistive Load (AC-12)	10A	10A	6A
sh Silhouette	Rated Operating Current (le) Electrical Life 100,000 operations		50/60 Hz	Inductive Load (AC-15)	10A	6A	3A
ø16			DC	Resistive Load (DC-12)	8A	2.2A	1.1A
ø22			DC	Inductive Load (DC-13)	4A	1.1A	0.55A
ø30			AC	Resistive Load (AC-12)	5A	5A	3A
Miniature			50/60 Hz	Inductive Load (AC-15)	5A	ЗA	1.5A
Pilot Lights			DC	Resistive Load (DC-12)	4A	1.1A	0.55A
		00	Inductive Load (DC-13)	2A	0.55A	0.27A	
	Contact Material			Silver			

Minimum applicable load (reference value): 3V AC/DC, 5 mA

(Applicable range is subject to the operating conditions and load.)

Note: The operational current represents the classification by making and breaking currents (IEC 60947-5-1).

• UL, c-UL rating: A300, CCC rating: A300

#### Table 1 (Degree of Protection)

	IP65	IP66	IP67	UL Type 4X
Illuminated Pushbutton	Yes	Yes (Note)	Yes (Note)	Yes (Note)
Pilot Light	Yes	Yes	No	Yes
Pushbutton	Yes	Yes (Note)	Yes (Note)	Yes (Note)
Selector Switch	Yes	Yes	Yes	Yes
Key Selector Switch	Yes	Yes	No	Yes

Note: When used with rubber boot (CW9Z-D11, -D12)



# **Specifications**

opeemeatione			
Operating Temperature	Non-illuminated: -25 to +60°C (no freezing) LED illuminated: -25 to +55°C (no freezing)		
Operating Humidity	45 to 85% RH (no condensation)		
Storage Temperature	-40 to +80°C (no freezing)		
Contact Resistance	50 mΩ maximum (initial value)		
Insulation Resistance	100 MΩ minimum (500V DC megger)		
Overvoltage Category	II (IEC 60664-1)		
Impulse Withstand Voltage	2.5 kV (IEC 60664-1/60947-5-1)		
Pollution Degree	3 (IEC 60947-5-1)		
Vibration Resistance	Operating extremes: 5 to 55Hz, amplitude 0.5 mm Damage limits: 30 Hz, amplitude 1.5 mm		
Shock Resistance	Operating extremes: 100 m/s <sup>2</sup> Damage limits: 1000 m/s <sup>2</sup>		
Mechanical Life (minimum operations)	Illuminated pushbutton/pushbutton         Momentary:       2,000,000 (single contact block)         1,000,000 (double contact block)         Maintained:       250,000 (single contact block)         100,000 (double contact block)         Selector switch:       250,000 (single contact block)         100,000 (double contact block)         selector switch:       250,000 (single contact block)         Key selector switch:       250,000 (single contact block)         100,000 (double contact block)       100,000 (single contact block)		
	Single contact50,000 (see Contact Ratings)block100,000 (see Contact Ratings)		
Electrical Life (minimum operations)	Double contact25,000 (see Contact Ratings)block50,000 (see Contact Ratings)		
(	Switching frequency Momentary: 1800 operations/h Maintained: 900 operations/h		
Degree of Protection (IEC 60529)	Panel front: See table to the left Terminal: IP20 (IEC 60529)		
Short-circuit Protection	250V/10A fuse (Type aM IEC 60269-1, IEC 602069-2)		
Electrical Shock Protection	Class II (IEC 61140)		
Terminal Style	Screw terminal (M3.5 slotted Phillips screw) (Ring terminal cannot be used.)		
Bezel Material	Polyamide		
Applicable Wire Size	Up to 2 wires of 2 mm <sup>2</sup> (solid wire ø1.6) maximum (14 to 16AWG)		
Recommended Tightening Torque	Terminal: 1.0 to 1.3 N·m Locking ring: 1.2 N·m		

# Weight (Examples)

Illuminated Pushbutton	46g (CW1L-M1E02QH, 2 contacts) 62g (CW1L-M1E22QH, 4 contacts)
Pilot Light	27g (CW1P-1EQH)
Pushbutton	45g (CW1B-M1E03, 3 contacts) 52g (CW1B-M1E22, 4 contacts)
Selector Switch	48g (CW1S-2E03, 3 contacts) 55g (CW1S-2E22, 4 contacts)
Key Selector Switch	61g (CW1K-2AE03, 3 contacts) 68g (CW1K-2AE22, 4 contacts)

#### **Direct Opening of Key Selector Switch**

Applicable Type	2-position (3NC)	3-position (2NC)
Minimum Operator Angle for Direct Opening Action	90°	45°
Minimum Operator Torque for Direct Opening Action	0.2 N·m	0.3 N·m
Maximum Operator Angle	90°	45°

Switches & Pilot Lights

# APEM

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CW
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Note: Determine mounting centers to ensure easy operation.

# **LED Module**

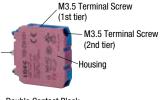
Rated Insulation Voltage (Ui)	250V	50V				
Rated Operating Voltage (Ue)	6V AC/DC	12V AC/DC	24V AC/DC	100/120V AC (50/60 Hz sine wave)	200/220V AC (50/60 Hz sine wave)	230/240V AC (50/60 Hz sine wave)
Operating Voltage Range	6V AC/DC±10%	12V AC/DC ±10%	24V AC/DC ±10%	100/120V AC ±10%	200/220V AC ±10%	230/240V AC ±10%
LED Module Part No.	CW-EAQ2	CW-EAQ3	CW-EAQ4	CW-EAQH	CW-EAQM	CW-EAQM4
Current Draw	22 mA	13 mA	12 mA	2 mA	2 mA	2 mA
Life (reference value)		Approx. 30,000 hours (the illuminance is reduced to 50% of the initial intensity when used on complete DC at 25°C.)				
Internal Circuit			X1 - Noise p	current circuit rotection circuit	/	
			X2 - Rectified Dimmer	r circuit protection circuit		

• Only one color is available for LSRD so there are no codes to specify the color in the part no.

# **Contact Blocks**

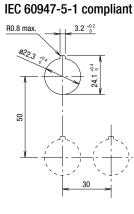
	Single Contact Block			Double Contact Block		
Contact	1N0	1NC	2N0	2NC	1NO-1NC	
Part No.	YW-E10R	YW-E01	YW-EW2R0	YW-EW02	YW-EW1R1	
Shape				· 白金子 · 白金子	A second and a sec	
Housing Color	Blue/Black	Reddish Purple	Blue/Black	Reddish Purple	Reddish Purple/Blue	
Push Rod Color	Black	Red	Black	Red	Gray	
Terminal No.	3-4	1-2	1st tier: 13-14 2nd tier: 23-24	1st tier: 11-12 2nd tier: 21-22	1st tier: (NO) 13-14 2nd tier: (NC) 21-22	
Weight (approx.)	11g			19g		





Double Contact Block YW-EW1R1

# **Mounting Hole Layout**

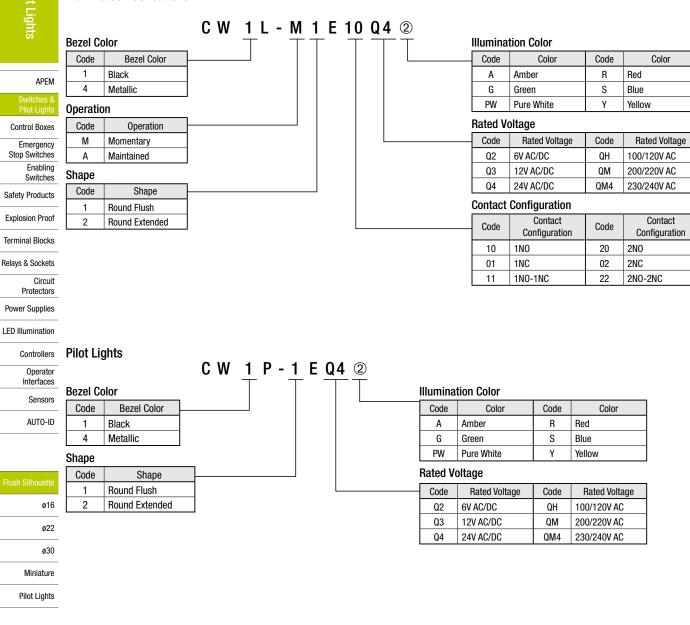


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# Ø22 Flush Silhouette Switches CW Series

# Part No. Development

# Illuminated Pushbuttons

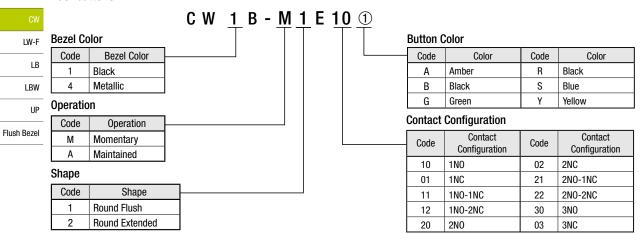


Note:

are not possible to be created.

Please use these charts to interpret the part numbers as all combinations

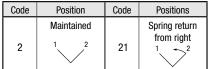
Pushbuttons



B-009

#### Selector Switches

#### CW 1 S-2LE 10 **Bezel Color Contact Configuration** Code Bezel Color Black 1 4 Metallic Positions 2-position



See <b>B-015</b> to <b>B-016</b> .			
	Operato	r	
	Code	Shape	
	Blank	Knob	
	L	Lever	

#### 3-position

Cod	e Position	Code	Positions	Code	Position	Code	Positions
3	Maintained	31	Spring return from right 1 - 2	32	Spring return from left $1 - \int_{-2}^{0} 2$	33	Spring return two-way $1 - \frac{1}{\sqrt{2}} - \frac{1}{\sqrt{2}}$

#### **Key Selector Switches**

		CW 1	K - 2	2 A	E 1	0 -	1H		
Bezel C	olor	T	_	Г	i –	Ť	$\square$	Кеу	
Code	Bezel Color	]						Code	Bezel Color
1	Black	]						Blank	Standard
4	Metallic							1H to 2H	Reversible Key
Positio	ne							3H to 6H	Non-reversible Key
rositio									
Code	Bez	zel Color						<ul> <li>Contact Co</li> </ul>	onfiguration
2	90° 2-position, maint	ained						See <mark>B-017</mark> a	nd <mark>B-018</mark> .
21	90° 2-position, spring	g return from right							
3	45° 3-position, maintained								
31	45° 3-position, spring return from right								
32	45° 3-position, spring return from left								
33	45° 3-position, spring	g return two-way							

#### Key Removal Position -

#### 2-position

Code	Position	Code	Positions	Code	Positions	Spring Return
A	Maintained	В	Removable in left only	С	Removable in right only	$\frac{\text{from right}}{1 + 2}$
<b>000</b> : Ke	y retained position					Note: The key cannot be removed

#### **002**: Key retained position



Code	Position	Code	Positions	Code	Positions	Code	Positions
Α	Maintained	В	Removable in left and center	С	Removable in right and center	D	Removable in center only
E	Maintained (remov- able in right and left) 1 0 2	G	Removable in left only	Н	Removable in right only		

ed position
ed position

-		
Spring Return from right	Spring Return from left	Spring Return two-way
	L C R	

Note: The key cannot be removed in a spring return position.

	Key	
_	Code	Bezel Color
	Blank	Standard
	1H to 2H	Reversible Key
	3H to 6H	Non-reversible Key

Enabling Switches
Safety Products
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Terminal Blocks
Relays & Sockets
Circuit

APEM

Control Boxes

Emergency Stop Switches

Circuit Protectors

Power Supplies

LED Illumination

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Controllers
```

```
Operator
Interfaces
```

Sensors

AUTO-ID

Flush Silhouette
ø16
ø22
ø30
Miniature
Pilot Lights

cw
LW-F
LB
LBW
UP
Flush Bezel

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spring return position.

# Illuminated Pushbuttons

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Flush Silhouette
ø16
ø22
ø30
Miniature
Pilot Lights

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CW	
LW-F	
LB	
LBW	
UP	
Flush Bezel	

		Operating	Contact	Par	t No.	Package quantity													
Shape	Operation	Voltage	Configuration	Black Bezel	Metallic Bezel	Code @													
Round Flush			1N0	CW1L-M1E10Q2@	CW4L-M1E10Q2@														
CWDL-M1			1NC	CW1L-M1E01Q2@	CW4L-M1E01Q2@	_													
CW□L-A1		6V AC/DC	1N0-1NC	CW1L-M1E11Q2@	CW4L-M1E11Q2@														
			2N0	CW1L-M1E20Q2@	CW4L-M1E20Q2@	_													
			2NC 2N0-2NC	CW1L-M1E02Q22 CW1L-M1E22Q22	CW4L-M1E02Q2@ CW4L-M1E22Q2@	_													
			1N0	CW1L-M1E10Q3@	CW4L-M1E10Q3@														
			1NC	CW1L-M1E01Q3@	CW4L-M1E01Q3@	_													
			1N0-1NC	CW1L-M1E11Q3@	CW4L-M1E11Q3@	_													
		12V AC/DC	2N0	CW1L-M1E20Q3@	CW4L-M1E20Q3@	_													
			2NC	CW1L-M1E02Q3@	CW4L-M1E02Q3@														
			2N0-2NC	CW1L-M1E22Q3@	CW4L-M1E22Q32	_													
			1N0	CW1L-M1E10Q4@	CW4L-M1E10Q4@	_													
			1NC	CW1L-M1E01Q4@	CW4L-M1E01Q4@	Specify an													
		0.41/ 0.0/00	1NO-1NC	CW1L-M1E11Q4@	CW4L-M1E11Q4@	illumination color code													
		24V AC/DC	2N0	CW1L-M1E20Q4@	CW4L-M1E20Q4@	place of ② in the Part N													
			2NC	CW1L-M1E02Q4@	CW4L-M1E02Q4@														
	Momentary		2N0-2NC	CW1L-M1E22Q4@	CW4L-M1E22Q4@	A: amber													
	momontary		1N0	CW1L-M1E10QH@	CW4L-M1E10QH@	G: green													
			1NC	CW1L-M1E01QH2	CW4L-M1E01QH <sup>®</sup>	PW: pure white													
		100/120V AC	1N0-1NC	CW1L-M1E11QH@	CW4L-M1E11QH@	R: red													
			2N0	CW1L-M1E20QH@	CW4L-M1E20QH@	S: blue Y: yellow													
			2NC	CW1L-M1E02QH@	CW4L-M1E02QH2														
			2N0-2NC	CW1L-M1E22QH2	CW4L-M1E22QH2														
			1N0	CW1L-M1E10QM@	CW4L-M1E10QM@	_													
			1NC 1NO-1NC	CW1L-M1E01QM@ CW1L-M1E11QM@	CW4L-M1E01QM@ CW4L-M1E11QM@	_													
		200/220V AC	2N0	CW1L-M1E20QM@	CW4L-M1E20QM@	_													
			2NC	CW1L-M1E02QM@	CW4L-M1E02QM@														
(black bezel)			2N0-2NC	CW1L-M1E22QM@	CW4L-M1E22QM@	_													
(5.000.0020.)			1N0	CW1L-M1E10QM4@	CW4L-M1E10QM4@	_													
		230/240V AC	1NC	CW1L-M1E01QM4@	CW4L-M1E01QM4@	_													
			1N0-1NC	CW1L-M1E11QM4@	CW4L-M1E11QM4@														
			2N0	CW1L-M1E20QM4@	CW4L-M1E20QM4@														
			2NC	CW1L-M1E02QM4@	CW4L-M1E02QM4@	_													
			2N0-2NC	CW1L-M1E22QM4@	CW4L-M1E22QM4@														
				1N0	CW1L-A1E10Q2@	CW4L-A1E10Q2@													
		6V AC/DC	1NC	CW1L-A1E01Q2@	CW4L-A1E01Q22														
			1NO-1NC	CW1L-A1E11Q22	CW4L-A1E11Q22														
(metallic bezel)		OV AC/DC	2N0	CW1L-A1E20Q22	CW4L-A1E20Q2@														
			2NC	CW1L-A1E02Q22	CW4L-A1E02Q2@														
			2N0-2NC	CW1L-A1E22Q22	CW4L-A1E22Q22	_													
																1N0	CW1L-A1E10Q3@	CW4L-A1E10Q3@	_
			1NC	CW1L-A1E01Q3@	CW4L-A1E01Q3@	_													
		12V AC/DC	1NO-1NC	CW1L-A1E11Q3@	CW4L-A1E11Q3@	_													
			2N0	CW1L-A1E20Q3@	CW4L-A1E20Q3@	_													
			2NC	CW1L-A1E02Q3@	CW4L-A1E02Q3@														
Son B-024 for replacement LED			2N0-2NC	CW1L-A1E22Q3@	CW4L-A1E22Q3@														
<ul> <li>See B-024 for replacement LED modules.</li> </ul>			1N0 1NC	CW1L-A1E10Q4@ CW1L-A1E01Q4@	CW4L-A1E10Q4@ CW4L-A1E01Q4@														
Marking film can be inserted to			1NO-1NC	CW1L-A1E11Q4@	CW4L-A1E11Q4@	Specify an illumination													
indicate legends. See B-026.		24V AC/DC	2N0	CW1L-A1E20Q4@	CW4L-A1E20Q4@	color code in place of in the Part No.													
• See B-019 for dimensions.			2NC	CW1L-A1E02Q4@	CW4L-A1E02Q4@	וו נוס רמול NU.													
A dummy block is installed when			2N0-2NC	CW1L-A1E22Q4@	CW4L-A1E22Q4@	A: amber													
one contact block is used.	Maintained		1N0	CW1L-A1E10QH@	CW4L-A1E10QH@	G: green													
			1NC	CW1L-A1E01QH@	CW4L-A1E01QH@	PW: pure white													
		100/1001/ 10	1NO-1NC	CW1L-A1E11QH@	CW4L-A1E11QH@	R: red													
		100/120V AC	2N0	CW1L-A1E20QH2	CW4L-A1E20QH <sup>®</sup>	S: blue													
			2NC	CW1L-A1E02QH@	CW4L-A1E02QH2	Y: yellow													
			2N0-2NC	CW1L-A1E22QH@	CW4L-A1E22QH2														
			1N0	CW1L-A1E10QM@	CW4L-A1E10QM2														
			1NC	CW1L-A1E01QM@	CW4L-A1E01QM2														
		200/220V AC	1NO-1NC	CW1L-A1E11QM@	CW4L-A1E11QM@														
		200/2201 AU	2N0	CW1L-A1E20QM@	CW4L-A1E20QM2	_													
			2NC	CW1L-A1E02QM2	CW4L-A1E02QM2														
			2N0-2NC	CW1L-A1E22QM@	CW4L-A1E22QM2	_													
			1N0	CW1L-A1E10QM4@	CW4L-A1E10QM4@	_													
			1NC	CW1L-A1E01QM4@	CW4L-A1E01QM4@	_													
		230/240V AC	1N0-1NC	CW1L-A1E11QM4@	CW4L-A1E11QM4@	_													
			2N0	CW1L-A1E20QM4@	CW4L-A1E20QM4@	_													
			2NC	CW1L-A1E02QM4@	CW4L-A1E02QM4@	_													
1			2NO-2NC	CW1L-A1E22QM4@	CW4L-A1E22QM4@														

# Illuminated Pushbuttons

						Package quantity: 1	, <u> </u>
Shape	Operation	Operating	Contact		t No. Metallia Davel	Illumination Color	Pilot Lights
•	<u> </u> '	Voltage	Configuration 1N0	Black Bezel CW1L-M2E10Q2@	Metallic Bezel CW4L-M2E10Q2@	Code @	l Its
ound Extended N□L-M2	1	+	1NC	CW1L-M2E01Q2@	CW4L-M2E01Q2@	-  ı	1
VIIL-1012 VIIL-A2	1		1N0-1NC	CW1L-M2E11Q2@	CW4L-M2E11Q2@	-  I	1
	1 '	6V AC/DC	2N0	CW1L-M2E20Q2@	CW4L-M2E20Q22	-  I	ADEM
	1	1	2NC	CW1L-M2E02Q2@	CW4L-M2E02Q2@	ı	APEM
	1		2N0-2NC	CW1L-M2E22Q2®	CW4L-M2E22Q22	'	Switches &
	1	1	1N0	CW1L-M2E10Q3@	CW4L-M2E10Q3@	'	Pilot Lights
	1		1NC	CW1L-M2E01Q3@	CW4L-M2E01Q3@	י ו	Control Boxe
	1	12V AC/DC	1N0-1NC	CW1L-M2E11Q3@	CW4L-M2E11Q3@	<u>ן</u> י	Emergency
	1	F	2N0 2NC	CW1L-M2E20Q3@ CW1L-M2E02Q3@	CW4L-M2E20Q3@ CW4L-M2E02Q3@	<u>ן</u> י	Stop Switch
	1	+	2NC 2NO-2NC	CW1L-M2E02Q3@ CW1L-M2E22Q3@	CW4L-M2E02Q3@ CW4L-M2E22Q3@	-  I	Enabling
	1	++	1N0	CW1L-M2E10Q4@	CW4L-M2E10Q4@	-  I	Switches
	1	r	1NC	CW1L-M2E01Q4@	CW4L-M2E01Q4@	-  ,	Safety Prod
	1		1N0-1NC	CW1L-M2E11Q4@	CW4L-M2E11Q4@	Specify an	
	1	24V AC/DC	2N0	CW1L-M2E20Q4@	CW4L-M2E20Q4@	illumination color code in place of 2 in the Part No.	Explosion P
	1	1	2NC	CW1L-M2E02Q4@	CW4L-M2E02Q4@		Terminal BI
	Momentary		2N0-2NC	CW1L-M2E22Q4@	CW4L-M2E22Q4@	A: amber	1
	Within	T I	1N0	CW1L-M2E10QH2	CW4L-M2E10QH@	G: green PW: pure white	Relays & So
	1		1NC	CW1L-M2E01QH@	CW4L-M2E01QH@	PW: pure white R: red	Circuit
	1	100/120V AC	1N0-1NC 2N0	CW1L-M2E11QH@	CW4L-M2E11QH@	S: blue	Protectors
	1	+	2N0 2NC	CW1L-M2E20QH@ CW1L-M2E02QH@	CW4L-M2E20QH2 CW4L-M2E02QH2	Y: yellow	Power Sup
	1	+	2NC 2NO-2NC	CW1L-M2E02QH@ CW1L-M2E22QH@	CW4L-M2E02QH@ CW4L-M2E22QH@	-  ·	1
	1	++	1N0	CW1L-M2E22QH@ CW1L-M2E10QM@	CW4L-M2E22QH@	-  I	LED Illumir
	1	+	1NC	CW1L-M2E01QM@	CW4L-M2E01QM@	-  ı	(
	1		1N0-1NC	CW1L-M2E01QM@	CW4L-M2E01QM@	-  ı	Controllers
	1	200/220V AC	2N0	CW1L-M2E20QM@	CW4L-M2E20QM@	-  I	Operator
	1	1	2NC	CW1L-M2E02QM@	CW4L-M2E02QM <sup>®</sup>	-  I	Interfaces
(black bezel)	1	[]	2N0-2NC	CW1L-M2E22QM <sup>®</sup>	CW4L-M2E22QM <sup>2</sup>	ı	Sensors
	1 '		1N0	CW1L-M2E10QM4@	CW4L-M2E10QM4@	· ا	
	1		1NC	CW1L-M2E01QM4@	CW4L-M2E01QM4@		AUTO-ID
-	1	230/240V AC	1N0-1NC	CW1L-M2E11QM4@		'	1
	1		2N0	CW1L-M2E20QM4@	CW4L-M2E20QM4@	<u>ן</u> י	
	1	F	2NC 2NO-2NC	CW1L-M2E02QM42 CW1L-M2E22QM42	CW4L-M2E02QM4@ CW4L-M2E22QM4@	<u>  </u> י	
and the second s	'	++	2N0-2NC 1N0	CW1L-M2E22QM4@ CW1L-A2E10Q2@	CW4L-M2E22QM4@ CW4L-A2E10Q2@		Flush Silho
	1	F	1NC	CW1L-A2E01Q2@	CW4L-A2E01Q2@	-  I	
	1	+	1N0-1NC	CW1L-A2E0102@	CW4L-A2E11Q2@	-  ,	ø16
	1	6V AC/DC	2N0	CW1L-A2E20Q2@	CW4L-A2E20Q2@	-  ,	-00
	1	Г	2NC	CW1L-A2E02Q2@	CW4L-A2E02Q2@	-  ,	ø22
(metallic bezel)	1		2N0-2NC	CW1L-A2E22Q2@	CW4L-A2E22Q2@	-  I	ø30
(11610110 5020.)	1		1N0	CW1L-A2E10Q3@	CW4L-A2E10Q3@		
	1		1NC	CW1L-A2E01Q3@	CW4L-A2E01Q3@	'	Miniature
	1	12V AC/DC	1N0-1NC	CW1L-A2E11Q3@	CW4L-A2E11Q3@	'	Dilet Light
	1		2N0	CW1L-A2E20Q3@	CW4L-A2E20Q3@	י ו	Pilot Light
	1	1	2NC	CW1L-A2E02Q3@	CW4L-A2E02Q3@	י ו	1
	1	<b>├</b> ──── <b>↓</b>	2N0-2NC	CW1L-A2E22Q3@	CW4L-A2E22Q3@	ן י	1
See <b>B-024</b> for replacement LED modules.	1	F	1N0 1NC	CW1L-A2E10Q4@ CW1L-A2E01Q4@	CW4L-A2E10Q4@ CW4L-A2E01Q4@	-	1
modules. Marking film can be inserted to	1	+	1N0-1NC	CW1L-A2E0104@	CW4L-A2E01Q4@	Specify an illumination color code	CW
indicate legends. See B-026.	1	24V AC/DC	2N0	CW1L-A2E20Q4@	CW4L-A2E20Q4@	in place of ② in the	
See B-019 for dimensions.	1		2NC	CW1L-A2E02Q4@	CW4L-A2E02Q4@	Part No.	LW-F
A dummy block is installed when	-inteined	F	2N0-2NC	CW1L-A2E22Q4@	CW4L-A2E22Q4@	1. J	LB
one contact block is used.	Maintained		1N0	CW1L-A2E10QH@	CW4L-A2E10QH2	A: amber G: green	1
	1	1	1NC	CW1L-A2E01QH@	CW4L-A2E01QH@	PW: pure white	LBW
	1	100/120V AC	1N0-1NC	CW1L-A2E11QH@	CW4L-A2E11QH@	R: red	1
	1		2N0	CW1L-A2E20QH@	CW4L-A2E20QH2	S: blue	UP
	1		2NC	CW1L-A2E02QH@	CW4L-A2E02QH@	Y: yellow	Flush Bez
	1	ļi	2N0-2NC	CW1L-A2E22QH@	CW4L-A2E22QH@	י ו	
	1	F	1N0 1NC	CW1L-A2E10QM@	CW4L-A2E10QM@ CW4L-A2E010M@	<u>  </u> י	1
	1	+	1NC 1NO-1NC	CW1L-A2E01QM@ CW1L-A2E11QM@	CW4L-A2E01QM2 CW4L-A2E11QM2	_	1
	1	200/220V AC	1N0-1NC 2N0	CW1L-A2E11QM@ CW1L-A2E20QM@	CW4L-A2E11QM@ CW4L-A2E20QM@	-  I	1
	1	F	2N0 2NC	CW1L-A2E20QM@	CW4L-A2E20QM@ CW4L-A2E02QM@	-  I	1
	1	+	2NO-2NC	CW1L-A2E02QM@	CW4L-A2E02QM@	-  ı	1
	1		1N0	CW1L-A2E10QM4@	CW4L-A2E10QM4@	-  ,	1
	1 '	1	1NC	CW1L-A2E01QM4@	CW4L-A2E01QM4@	-  ,	1
	1	230/240V AC	1N0-1NC	CW1L-A2E11QM4@	CW4L-A2E11QM4@	י ד וי	1
	1	230/2401 40	2N0	CW1L-A2E20QM4@	CW4L-A2E20QM4@	'	1
	1 .	1	2NC	CW1L-A2E02QM4@	CW4L-A2E02QM42	· ۱	1
	۱. I	-l	2N0-2NC	CW1L-A2E22QM4@	CW4L-A2E22QM42		-



s &	Pilot Lights				
s & Pilot Lights					Package quantity: 1
Lig	Shape	Operating Voltage	Part	Illumination Color	
Ints			Black Bezel	Metallic Bezel	Code ②
	Round Flush CWDP-1	6V AC/DC	CW1P-1EQ2@	CW4P-1EQ2@	
APEM					_
Switches & Pilot Lights Control Boxes		12V AC/DC	CW1P-1EQ3 <sup>®</sup>	CW4P-1EQ3 <sup>®</sup>	
Emergency					
Stop Switches		24V AC/DC	CW1P-1EQ4@	CW4P-1EQ42	A: amber G: green
Enabling Switches	(black bezel)				PW: pure white
Safety Products		100/120V AC	CW1P-1EQH@	CW4P-1EQH@	R: red S: blue Y: yellow
Explosion Proof					r. yenow
Terminal Blocks		200/220V AC	CW1P-1EQM@	CW4P-1EQM@	
Relays & Sockets		200/2200 110	own requie	on i requie	
Circuit Protectors	(metallic bezel)				
Power Supplies		230/240V AC		CW4P-1EQM42	
LED Illumination	Round Extended				
Controllers	CWDP-2	6V AC/DC	CW1P-2EQ22	CW4P-2EQ22	
Operator Interfaces					
Sensors		12V AC/DC	CW1P-2EQ3 <sup>®</sup>	CW4P-2EQ3②	
AUTO-ID		120 40/00	GWIT-ZEQJ@	UW4I -ZLQJ&	
					A: amber
	(black bezel)	24V AC/DC	CW1P-2EQ42	CW4P-2EQ4@	G: green
Flush Silhouette					PW: pure white R: red
ø16		100/120V AC	CW1P-2EQH <sup>®</sup>	CW4P-2EQH2	S: blue Y: yellow
ø22					1. yonow
ø30		200/220V AC	CW1P-2EQM@	CW4P-2EQM@	
Miniature					
Pilot Lights	(metallic bezel)	230/240V AC	CW1P-2EQM4@	CW4P-2EQM4@	
		200/2404 110	UTTI LLQIIIT®	UTTI LEQUIT®	

 $\bullet$  Specify an illumination color code in place of in the Part No.

See B-019 for dimensions.
See B-024 for replacement LED modules.

• Two dummy blocks are installed.

CW	
LW-F	
LB	
LBW	
UP	
Eluch Pozol	

					Package quantity: 1	Pilot Lights
Shape	Operation	Contact	Par	Button Color Code ①	Lig	
•	oporation	Configuration	Black Bezel	Metallic Bezel		hts
Round Flush CWDB-M1		1N0	CW1B-M1E10①	CW4B-M1E10①	!	1
CW⊡B-A1		1NC	CW1B-M1E01①	CW4B-M1E01①		
		1N0-1NC	CW1B-M1E11①	CW4B-M1E11①	!	APEM
		2N0	CW1B-M1E20①	CW4B-M1E20①	B: black G: green	Switches & Pilot Lights
	Momentary	2NC	CW1B-M1E02①	CW4B-M1E02①	R: red	Control Boxes
	WOMEntary	2NO-1NC	CW1B-M1E211	CW4B-M1E21①	S: blue W: white	Emergency
		1NO-2NC	CW1B-M1E12①	CW4B-M1E12①	Y: yellow	Stop Switches
(black bezel)		3N0	CW1B-M1E301	CW4B-M1E30①		Enabling Switches
(		3NC	CW1B-M1E03①	CW4B-M1E03①	· ا	Safety Products
		2NO-2NC	CW1B-M1E221	CW4B-M1E22①	- I	Explosion Proof
		1N0	CW1B-A1E10①	CW4B-A1E101		
		1NC	CW1B-A1E01①	CW4B-A1E011	B: black	Terminal Blocks
	Maintained	1NO-1NC	CW1B-A1E11①	CW4B-A1E111	G: green R: red	Relays & Sockets
		2N0	CW1B-A1E20①	CW4B-A1E20①	S: blue	Circuit Protectors
(metallic bezel)		2NC	CW1B-A1E021	CW4B-A1E02①	W: white Y: yellow	Power Supplies
		2NO-2NC	<b>CW1B-A1E22</b> ①	CW4B-A1E221		LED Illumination
Round Extended		1N0	CW1B-M2E101	CW4B-M2E10①		Controllers
CW□B-M2 CW□B-A2		1NC	CW1B-M2E011	CW4B-M2E01①		Operator
		1NO-1NC	CW1B-M2E111	CW4B-M2E11①		Interfaces
		2N0	CW1B-M2E201	CW4B-M2E201	B: black	Sensors
		2NC	CW1B-M2E021	<b>CW4B-M2E02</b> ①	G: green R: red	AUTO-ID
	Momentary	2NO-1NC	CW1B-M2E211	CW4B-M2E211	S: blue	I
		1NO-2NC	CW1B-M2E121	CW4B-M2E12①	W: white Y: yellow	1
		3N0	CW1B-M2E30①	<b>CW4B-M2E30</b> ①		Flush Silhouette
(black bezel)		3NC	CW1B-M2E031	<b>CW4B-M2E03</b> ①		
		2NO-2NC	CW1B-M2E221	<b>CW4B-M2E22</b> ①		ø16 
		1N0	CW1B-A2E10①	CW4B-A2E101		ø22
		1NC	CW1B-A2E01①	CW4B-A2E011	B: black	ø30
		1NO-1NC	CW1B-A2E11①	CW4B-A2E111	G: green R: red	Miniature
	Maintained	2N0	<b>CW1B-A2E20</b> ①	CW4B-A2E201	S: blue	Pilot Lights
		2NC	<b>CW1B-A2E02</b> ①	CW4B-A2E021	W: white Y: yellow	
(metallic bezel)		2NO-2NC	CW1B-A2E22①	CW4B-A2E22①		1

 $\bullet$  Specify a button color code in place of in the Part No.

Pushbuttons

See B-020 for dimensions.
Two or one dummy block is installed when one or two contact blocks are used, respectively.
Contact configurations 2NO-1NC, 1NO-2C, 3NO, and 3NC are available for momentary pushbuttons only.

Switches & Pil

UP Flush Bezel

LW-F LB LBW



. . . . . . . . . . . . . . . .

S S	Selector S	Switches							
Pilot								Package quantity: 1	
s & Pilot Lights	Shape	CW⊡S (Knob Operator)		8					
APEM Switches &					(black bezel)		(metalli	c bezel)	
Pilot Lights Control Boxes		Contact	Contac	t Block	Operator Pos	ition			
Emergency Stop Switches	No. of Positions	Configuration (Code)	Mounting Position	Contact	L	R	Maintained	Spring return from right	
Enabling Switches		1N0	1 2	NO	Dummy	•	CW□S-2E10	CW□S-21E10	
Safety Products		(10)	3		Dummy		CWEIS-ZETO	GWEI3-ZIEIO	
Explosion Proof		1NC	1 2	—	Dummy			CW□S-21E01	
Terminal Blocks		(01)	3	NC	Dummy		CW□S-2E01	CWLI3-21E01	
Relays & Sockets		1N0-1NC (11) 2N0 (20)	1 2	NO	Dummy	•	 CW⊡S-2E11	CW□S-21E11	
Circuit Protectors			3	NC	•				
Power Supplies			1 2	NO	Dummy	•	CW□S-2E20	CW□S-21E20	
LED Illumination			3	NO		•			
Controllers		2NC	1 2	NC	Dummy		 CW⊡S-2E02	CW□S-21E02	
Operator Interfaces		(02)	3	NC	•	_	-		
Sensors		2NO-1NC	1 2	NO NO		•	CW⊡S-2E21	CW□S-21E21	
AUTO-ID		(21)	3	NC	•				
	90° 2-position	1NO-2NC	1 2	NO NC	•	•	CW□S-2E12	CW□S-21E12	
Flush Silhouette		(12)	3	NC	•	•	-		
ø16		3N0 (30)	1 2	NO NO		•	CW□S-2E30	CW□S-21E30	
ø22		(00)	3	NO NC	•	•			
ø30		3NC (03)	2	NC	•		CW□S-2E03	CW□S-21E03	
Miniature			3	NC NO/ NO		•			
Pilot Lights		2N0-2NC	1	NC NC		•	-		
		(22)	2		Dummy	•	CW□S-2E22	CW□S-21E22	
		L	3	NC NC	•				
CW				1	2N0 N0				
LW-F		4NO (40)	2	NO NO	Dummy	•	CW□S-21E40	CW□S-21E40	
LB			3	2N0 N0		•	-		
LBW	<ul> <li>Specify a bezel colo</li> </ul>	r code in place of □ ir	the Part No.: 1	(black bezel), 4	(metallic bezel)				

• Lever operator is also available. For dimensions, see B-010.

• When ordering a lever operator selector switch, designate L before E in the Part No. of knob operator selector switches.

[Example] CW1S-2E10  $\rightarrow$  CW1S-2LE10

Knob Operator Lever Operator

Lever Operator



CW1S-\*LE (black bezel)



CW4S-\*LE (metallic bezel)

**Contact Block Mounting Position** 



# For more information, visit http://apac.idec.com

UP

### ø22 Flush Silhouette Switches CW Series

									Package quantity: 1	- 8 Sé
No. of	Contact Configuration	Contact	t Block	Operator Position						Pilot
Positions	(Code)	Mounting Position	Contact	L C	R	Maintained	Spring return from right	Spring return from left	Spring return two-way	thes & Pilot Lights
	1NO-1NC	1	NO		'					S
	(11)	2	NC	Dummy	<b>/</b> )	CW□S-3E11	CW□S-31E11	CW□S-32E11	CW□S-33E11	1
ŀ	i	3	NC NC		_			+'	+	APEM
	1NO-1NC (11N1)	2		Dummy	v	CWDS-3E11N1	CWDS-31E11N1	CW□S-32E11N1	CW□S-33E11N1	APEM Switches &
	(11N1)	3	NO	- í						Switches & Pilot Lights
	1NO-1NC	1	NO		'					Control Boxes
	(11N2)	2	NC	Dummy	) 	CWDS-3E11N2	CW□S-31E11N2	CW□S-32E11N2	CW□S-33E11N2	Emergency
ł	i	3	+	Dummy Dummy		+	+	+'	+	Stop Switches Enabling
	1NO-1NC (11N3)	2	NC		i	CWDS-3E11N3	CWDS-31E11N3	CW□S-32E11N3	CW□S-33E11N3	Switches
	(11110)	3	NO				!	'	J	Safety Products
	1NO-1NC	1	— NO	Dummy	<u>,</u>				200511M	Explosion Proof
	(11N4)	2	NO NC			CW□S-3E11N4	CW□S-31E11N4	CW□S-32E11N4	CW□S-33E11N4	
	i	3	NC NO			+	+	+'	+	- Terminal Blocks
	2N0 (20)	2	—	Dummy	γ	CW□S-3E20	CW□S-31E20	CW□S-32E20	CW□S-33E20	Relays & Sockets
	(20)	3	NO			1		1	I	Circuit
	2N0	1	'	Dummy	í -					Protectors
	(20N1)	2	NO NO		•	CW□S-3E20N1	CW□S-31E20N1	CW□S-32E20N1	CW□S-33E20N1	Power Supplies
	i	3	NO NC	+				+'	+	LED Illumination
	2NC (02)	2		Dummy	v	CWDS-3E02	CW□S-31E02	CW□S-32E02	CW□S-33E02	
	(02)	3	NC		Í	1	!	'	I	Controllers
	2NC	1		Dummy	y j		,			Operator Interfaces
	(02N1)	2	NC NC	•	·'	CWDS-3E02N1	CW□S-31E02N1	CW□S-32E02N1	CW□S-33E02N1	Sensors
-		3	NC NO		<u> </u>			<u>+'</u>		
	2NO-1NC	1	NO NO	-		 CW⊡S-3E21	CW□S-31E21	CW□S-32E21	CW□S-33E21	AUTO-ID
45°	(21)	3	NC							1
3-position	2NO-1NC	1	NO	•	( <u> </u>		· [ ,	· · · · · ·	J J	1
	2NO-1NC (21N1)	2	NC		'	CW□S-3E21N1	CW□S-31E21N1	CW□S-32E21N1	CW□S-33E21N1	Flush Silhouette
-	·	3	NO NO		•		ļ'	<u> '</u>	ļ!	-
	1NO-2NC	1	NO NC		)	CW□S-3E12	CW□S-31E12	CW□S-32E12	CW□S-33E12	ø16
	(12)	3	NC		i	00010000	0000000000000000000000000000000000000			ø22
	THO ONC	1	NC				,	, ,	ļ,	ø30
	1NO-2NC (12N1)	2	NO			CWDS-3E12N1	CW□S-31E12N1	CW□S-32E12N1	CW□S-33E12N1	
-	Ļ	3	NC NO		<u> </u>		ļ′	<u> </u> '	ļ	Miniature
	3N0	1 2	NO NO		•	 CW⊡S-3E30	CW□S-31E30	CW□S-32E30	CW□S-33E30	Pilot Lights
	(30)	3	NO		•					1
	010	1	NC		È		<del>                                      </del>	· · · · · · · · · · · · · · · · · · ·	ļ,	1
	3NC (03)	2	NC	•	Ľ,	CWDS-3E03	CW□S-31E03	CW□S-32E03	CW□S-33E03	1
		3			-  '	·	ļ′	<u> </u> '	ـــــــا	CW
	I	1	NO/ NO NC NC			-	,	1	I	LW-F
	2NO-2NC	2		Dummy	v	CW□S-3E22	CW□S-31E22	CW□S-32E22	CW□S-33E22	
	(22)		NO/ NO							LB
	L	3	NC NC				<u> </u> '	<u> </u> '	<u> </u>	LBW
	1	1	2N0 N0		- '	-	,	1	J J	UP
	4N0	2		Dummy		 CW⊡S-3E40	CW□S-31E40	CW□S-32E40	CW□S-33E40	
	(40)				/					Flush Bezel
	I	3	<sup>2NU</sup> NO		Ĩ	1	!	'	I	1
		1	and NC				,	· · · · · · · · · · · · · · · · · · ·	J	1
	2NO-2NC		ZINC NC	+		CWIS-3E22N2	011502N2	SWED 20502N2	000500 00500M2	1
			- I	Dummy	. v	CWLIS-3EZZINZ	CWDS-31E22N2	CWDS-32E22N2	CWDS-33E22N2	1
	(22N2)	2	2N0 NC				1	1	· · · · · ·	l l

•Specify a bezel color code in place of 🗆 in the Part No.: 1 (black bezel), 4 (metallic bezel) • For the contact block mounting position, see B-015.

•Lever operator is also available. For dimensions, see B-021.

•When ordering a lever operator selector switch, designate L before E in the Part No. of knob operator selector switches. [Example] CW1S-3E11 → CW1S-3LE11 Knob Operator Lever Operator



#### **Key Selector Switches**

Pilot								Package quantity: 1	
Pilot Lights	Shape	СМПК		2			<b>R</b>		
APEM					(black bezel)	)	(me	etallic bezel)	
Switches & Pilot Lights		Contact	Conta	ct Block	Operator Pos	sition	L		
Control Boxes	No. of Positions	Configuration (Code)	Mounting Position	Contact	L	R	Maintained	Spring return from right	
Emergency Stop Switches		1N0	1	NO		Ι			
Enabling		(10)	2		Dummy		CWDK-2AE10	CWDK-21BE10	
Switches			3	—	Dummy	/			
Safety Products		1NC	1		Dummy				
Explosion Proof		(01)	2	_	Dummy	/	CWDK-2AE01	CWDK-21BE01	
Explosion Floor			3	NC					
Terminal Blocks		1NO-1NC	1	NO		•		CW□K-21BE11	
Relays & Sockets		(11)	2		Dummy	/	CW□K-2AE11		
			3 1	NC NO		•		<u> </u>	
Circuit Protectors		2N0	2	NO	Dummy		CWIK-2AE20	CW□K-21BE20	
Power Supplies		(20)	3	NO	Dunniy	•			
Power Supplies			1	NC	•	•			
LED Illumination		2NC	2		Dummy	1	CWICK-2AE02	CW□K-21BE02	
Cantrolloro		(02)	3	NC	•	·			
Controllers			1	NO		•		CW□K-21BE21	
Operator Interfaces		2NO-1NC (21)	2	NO		•	CWIK-2AE21		
	00% 0 position	(21)	3	NC					
Sensors	90° 2-position		1	NO		•		CW□K-21BE12	
AUTO-ID		1NO-2NC (12)	2	NC			CWIK-2AE12		
		(12)	3	NC					
		3N0	1	NO		•			
		(30)	2	NO			CWDK-2AE30	CWDK-21BE30	
Flush Silhouette			3	NO		•			
		3NC	1	NC	•				
ø16		(03)	2	NC			CW□K-2AE03	CW□K-21BE03	
ø22			3	NC NO	•	•			
ø30		2NO-2NC	1	NO/NC NC					
		(22)	2	<u> </u>	Dummy		CWDK-2AE22	CW□K-21BE22	
Miniature			3	NO/NC NO	•	•	_		
Pilot Lights			1	2N0 N0		•			
		4N0 (40)	2	_	Dummy	/	CW□K-2AE40	CW□K-21BE40	
		(,	3	2N0 N0		•	_		
CW			-	NO NO					

• Specify a bezel color code in place of  $\Box$  in the Part No.: 1 (black bezel), 4 (metallic bezel)

• On the spring-returned types, the key can be released only from the maintained position. On the maintained types, the key can be released from every position. Key LW-F retained positions are also available. See below.

• Two keys are supplied. • Key cylinder material: Metal

. Besides the standard key (key number OH), six other keys are also available. See below.

C:

• For the contact block mounting position, see B-018. • For dimensions, see B-022.

 When ordering an optional key or optional key retained positions, specify designation codes as shown below: UP

[Example] CW1K-2AE10-1H

Flush Bezel

LB

LBW

\_ (blank): Standard key (0H, reversible) Note: 1H to 2H: Reversible key Key number is indicated on the key cylinder. 3H to 6H: Non-reversible key Standard keys do not have a key number indication. Key removal position code 2-position 3-position A: Removable in all positions Removable in all positions A: Removable in left only Removable in right only B: Removable in left and center

- B:
  - 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

Note: Key is retained in the spring-returned position.

### ø22 Flush Silhouette Switches CW Series

1         1         0											Package quantity: 1	8 8
Inte-Info         2	No. of	Contact	Conta	ict Block								Pilo
Image: international system         OWER-SAE:11         OWER-SAE:2111         OWER-SAE:2211         OWER-SAE:22111         OWER-SAE:22111				Contact	L	C	R	Maintained				t Ligh
Image: second					•					2WEW 200511		5
HU-INC (1)NU)         1         MC					+	Dumm	iy T	CWLIK-3AETT	CWLIK-31BETT	CWLIK-32GETT	CWLIK-33DETT	
100-100 2         2			-		+		╞	+		-	+	1054
No.         No. <td></td> <td></td> <td>L</td> <td></td> <td>+</td> <td>Dumm</td> <td>nv</td> <td>CWDK-3AE11N1</td> <td>CWDK-31BE11N1</td> <td>CW□K-32CE11N1</td> <td>CWDK-33DE11N1</td> <td></td>			L		+	Dumm	nv	CWDK-3AE11N1	CWDK-31BE11N1	CW□K-32CE11N1	CWDK-33DE11N1	
MC-100 (110)         NO		(1111)			+	T						Switches & Pilot Lights
45*         200         000 <td></td> <td>110 110</td> <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td> <td>Pilot Lights</td>		110 110				,					<u> </u>	Pilot Lights
10         3          Dummy         Ovalik-38E11N3         Ovalik-33EE1N3         Ovalik-32EE1N3         Ovalik-32EE1N4         Ovalik-32EE2N1         Ovalik-33EE2N1         Ovalik-32EE2N1         Ovalik-33EE2N1         Ovalik-33EE2N1 <thovalik-33ee2n1< th="">         Ovalik-33EE2N1</thovalik-33ee2n1<>			L		$\bot$			CWDK-3AE11N2	CWDK-31BE11N2	CWDK-32CE11N2	CWDK-33DE11N2	Control Boxes
100-1102 (110) (110		(,			_		-					Emergency
47: 3 position         2         NC         C         C/ULR 34E11N3         C/ULR 31E11N3         C/ULR 32E11N3         C/ULR 32E211N3         C/ULR 33E11N3         C/ULR 33E11N3         C/ULR 33E11N3         C/ULR 33E21N1         C/ULR 33E21N1         C/ULR 33E21N1         C/ULR 33E20N1         C/ULR 33E2		1NO-1NC			'	-	iy			T		Stop Switches
1         3         NO         0								CWDK-3AE11N3	CWDK-31BE11N3	CW□K-32CE11N3	CWDK-33DE11N3	Enabling Switches
NO-INC (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2		<u>``</u>			<u> </u>	!				_		
(11N4)         2         NO         0 </td <td></td> <td>1N0-1NC</td> <td></td> <td></td> <td>-</td> <td>_</td> <td>Ía</td> <td></td> <td></td> <td>20074414</td> <td></td> <td>Safety Products</td>		1N0-1NC			-	_	Ía			20074414		Safety Products
AS*         NC         Dummy         OWER-3AE20         OWER-316E20         OWER-32CE20         OWER-33DE201         Permanents           2N0 (2011)         1         -         Dummy         OWER-3AE20         OWER-316E201         OWER-32CE201         OWER-33DE201         Permanents           2N0 (2011)         1         -         Dummy         OWER-3AE2011         OWER-316E2011         OWER-32CE201         OWER-33DE201         Permanents           2N0 (2011)         1         NO         -         Dummy         OWER-34E2011         OWER-316E2011         OWER-32CE02         OWER-33DE201         Permanents           2NC (2021)         1         NO         -         OWER-34E20         OWER-316E2N1         OWER-32CE021         OWER-33DE211         Permanents           2NO (0211)         2         NO         -         OWER-34E21         OWER-316E2N1         OWER-32CE211         OWER-33DE211         Permanents           2NO (0211)         1         NO         -         -         OWER-34E21         OWER-316E21N1         OWER-32CE21N1         OWER-33DE211         Permanents           2NO (121)         1         NO         -         -         OWER-34E21N1         OWER-316E21N1         OWER-32CE21N1         OWER-33DE21N1         Permanen					<b>_</b>	<u> </u>		CWDK-3AE11N4	CWDK-31BE11N4	CWDK-32CE11N4	CWDK-33DE11N4	Explosion Proof
2NO (2)         2         -         Dummy Dummy 2         OWCIK-3AE20         CWCIK-318E20         CWCIK-326E20         CWCIK-330E20         Himma Network           2NO (2011)         1         -         Dummy 2         OWCIK-3AE2011         CWCIK-318E20         CWCIK-326E2011         OWCIK-330E2011         No           2NO (2011)         1         NO         -         Dummy 2         OWCIK-3AE2011         CWCIK-318E20         CWCIK-32CE2011         OWCIK-330E2011         Provestice           2NO (2011)         1         NO         -         Dummy 2         OWCIK-3AE2011         CWCIK-318E20         OWCIK-32CE2011         OWCIK-330E2011         Provestice           2NO (2011)         1         NO         -         Dummy 2         OWCIK-3AE211         CWCIK-318E21         OWCIK-32CE211         OWCIK-330E2111         Provestice           3         NO         -         -         OWCIK-3AE2111         CWCIK-318E21         OWCIK-32CE2111         OWCIK-33DE2111         Provestice         Provesti						<b>P</b>	<u> </u> '		<u> </u>			
420         2         -         Dummy         CWLIK-3AE20         CWLIK-31BE20         CWLIK-32CE20         CWLIK-33DE201         Pating A           200 (2011)         1         -         Dummy         CWLIK-3AE201         CWLIK-31BE2011         CWLIK-32CE2011         CWLIK-33DE2011         Pating A           200 (2011)         1         No         -         Dummy         CWLIK-3AE2011         CWLIK-31BE2011         CWLIK-32CE2011         CWLIK-33DE2011         Pating A           200 (2011)         1         No         -         Dummy         CWLIK-3AE201         CWLIK-31BE20         CWLIK-32CE021         CWLIK-33DE2011         Pating A           200 (2011)         2         No         -         CWLIK-3AE21         CWLIK-31BE21         CWLIK-32CE0211         CWLIK-33DE2111         Pating A           200 -1NC (21)         2         NO         -         CWLIK-3AE211         CWLIK-31BE21         CWLIK-33DE211         Pating A         Pati		2N0					<u> </u>			200500		Terminal Blocks
46"         1          Dummy         CWEIK-3AE20N1         CWEIK-31BE20N1         CWEIK-32CE20N1         CWEIK-33DE20N1         CWEIK-33DE20N1           2NC (20N1)         2          Dummy         CWEIK-3AE20N1         CWEIK-31BE20N1         CWEIK-32CE20N1         CWEIK-33DE20N1         DWEIK-33DE20N1         DWEIK-33DE21N1         DWEIK-33					'	Dumm	iy -	CWIK-3AE20	CWDK-31BE20	CWIK-32CE20	CWIK-33DE20	
280 (20N1)         2         NO         CWEIK-3AE20N1         CWEIK-3AE02         CWEIK-3AE02         CWEIK-3AE02         CWEIK-3AE02         CWEIK-3AE02N1         CWEIK-3AE02		ļ!			—			+	+			Relays & Sockets
45"         3         NO         0		0NO (20NI1)	L		-	_	1 -		OWER OF BEDOMI			
45° (02)         1         NC         Dummy         CWEIK-3AE02         CWEIK-31BE02         CWEIK-32CE02         CWEIK-33DE02         CWEIK-33DE02           45° 3-position         1         -         Dummy         CWEIK-3AE02N1         CWEIK-31BE02N1         CWEIK-32CE02N1         CWEIK-33DE02N1         CWEIK-33DE1N1         CWEIK-33DE1N1         CWEIK-33DE1N1         CWEIK-33DE1N1         CWEIK-33DE1N1         CWEIK-33DE1N1         CWEIK-33DE1N1         CWEIK-33DE1N1         CWEIK-33DE1N1		2NU (20141)				'		CWLIK-3AE20N1	CWLIK-31BEZUNT	CWLIK-326E20N1	CWLIK-33DEZUNT	Protectors
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					+	+		+			+	Power Supplies
(02)         2         -         Unitity         Unity					+		<b>•</b> ••				OMETIK SSDEUS	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			L		+	Dumm	,y ⊤	GW LIN-SAEUZ	GWLIK-SIDEUZ	UW LIN-JZUEUZ	GMTIK-22DE05	LED Illumination
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					+	Dumm			+	+		Controllers
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		2NC (02N1)				-	-y T			CWITK-32CF02N1		
45° 3-position         2N0-1NC (21)         1         NO         0 </td <td></td> <td>2100 (02.11)</td> <td></td> <td></td> <td>+</td> <td><b>_</b></td> <td>+</td> <td>GWLIN-SALUZINI</td> <td>GWLIN-3IDEVENI</td> <td>UWLIN-JEULUEN</td> <td>GWLIN-SSDEVENT</td> <td>Operator Interfaces</td>		2100 (02.11)			+	<b>_</b>	+	GWLIN-SALUZINI	GWLIN-3IDEVENI	UWLIN-JEULUEN	GWLIN-SSDEVENT	Operator Interfaces
45° 3-position         200-1NC (2)         2         NO         0 <td></td> <td><math>\vdash</math></td> <td></td> <td></td> <td>+</td> <td>-</td> <td>+-</td> <td>+</td> <td>1</td> <td></td> <td>+</td> <td></td>		$\vdash$			+	-	+-	+	1		+	
45°         3         NC         ATO-10           2N0-1NC         1         NO         0         CW□K-3AE21N1         CW□K-31BE21N1         CW□K-32CE21N1         CW□K-33DE21N1         Plants         ATO-10           1N0-2NC (12)         2         NC         0         CW□K-3AE12         CW□K-31BE12         CW□K-32CE21N1         CW□K-33DE12         Plants         Pl		2NO-1NC (21)			+	.+'		CW/TK-34F21	CWITIK-31RF21	CW/TIK-320F21	CWITIK-33DF21	Sensors
3*position         1         NO         0 <th< td=""><td></td><td></td><td></td><td></td><td>Ť</td><td><u> </u></td><td></td><td>OWLIN ONLE .</td><td>UWLIN OTBEET</td><td>UWLIN OLOLL .</td><td>UWLIN OUDEL.</td><td></td></th<>					Ť	<u> </u>		OWLIN ONLE .	UWLIN OTBEET	UWLIN OLOLL .	UWLIN OUDEL.	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	3-position	$\vdash$			+	—	+	+			+	
Image: constraint of the					+-	+	+	CW/TK-34F21N1	CWITK-31RF21N1	CW/TIK-320E21N1	CWITIK-33DF21N1	l
1         NO         0		(21N1)			+	+		UWER-Once	UWLIN-DIDLET.	UWLIN-JEVEE	UWLIN-JUDEETT.	l
IN0-2NC (12)         2         NC         CWIK-3AE12         CWIK-31BE12         CWIK-32CE12         CWIK-33DE12         I           1         NC         -				-	$+ \bullet$	,+'		+	+	+	+	l
3         NC         3         NC         6         7         6         6         7         6         6         7         6         6         7 <th7< th="">         7         7         7</th7<>		1NO-2NC (12)			+-	-	+	CWFTK-3AE12	CWFTK-31BE12	CWFTK-32CE12	CWFTK-33DE12	Flush Silhouette
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$					+	Ť	+	UTER GLEE	Undix U.S.L.	UWER OLDER	Un Lik occur	1
1NO-2NC (12N1)         2         NO         0					+-	Te	5				1	ø16
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					+	,+ <u> </u>	T	CW⊡K-3AE12N1	CWIK-31BE12N1	CW□K-32CE12N1	CWICK-33DE12N1	a22
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		(12N1)	L		Ť	<b>—</b>		0	vi	0	0	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$					1	, <del>T</del>	+	1			1	ø30
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						,†		CWDK-3AE30	CWDK-31BE30	CWDK-32CE30	CWDK-33DE30	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		(30)			+_	+	-					Miniature
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		210			+	1					1	Pilot Lights
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				NC	$\top$			CWDK-3AE03	CWDK-31BE03	CW□K-32CE03	CWDK-33DE03	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		(00)	3	NC				1				l
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		· · · ·	1			,†					<u> </u>	l –
$(22) \qquad \begin{array}{c c c c c c c c c c c c c c c c c c c $		2NO-2NC		NC								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			2		_	Dumm		CWDK-3AE22	CWDK-31BE22	CW□K-32CE22	CWDK-33DE22	CW
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		<u>`</u>	3	I NO/NC: ⊢		<u> </u>		4				1W E
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		<u> </u>	'			<b>—</b>	<u> </u> '					
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		1	1	1 2NIA	-	.+'	+'	-				LB
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$			2	+	-			- ΟΜΓΙΚ-3ΔΕ40	CWITE-31RF40	CW/TK-320F40		
3         2NU         NO         Image: Constraint of the state of the s		(40)		NO			1 -		GWLIN-310L-10			LBW
1         2NC         NC         Image: Comparison of the system		1 '	3			+		-				1
1         2NC         NC         Flush Be           2N0-2NC (22N2)         2         —         Dummy         CW□K-3AE22N2         CW□K-31BE22N2         CW□K-32CE22N2         CW□K-33DE22N2         Flush Be				NC	_		<b>b</b>				<u> </u>	UP
2NO-2NC (22N2)         2         —         Dummy         CW□K-3AE22N2         CW□K-31BE22N2         CW□K-32CE22N2         CW□K-33DE22N2           3         2NO         NO         ● <t< td=""><td></td><td></td><td>  1 _</td><td></td><td></td><td></td><td>5</td><td>1</td><td></td><td></td><td></td><td>Flush Bezel</td></t<>			1 _				5	1				Flush Bezel
3 200 •			2	-		Dumm	ıy	CWDK-3AE22N2	CWDK-31BE22N2	CWDK-32CE22N2	CWDK-33DE22N2	
		(22112)	3									l
		<u> </u>			ງ			<u> </u>				I

Specify a bezel color code in place of □ in the Part No.: 1 (black bezel), 4 (metallic bezel)
On the spring-returned types, the key can be released only from the maintained position. On the maintained types, the key can be released from every position. Key retained positions are also available. See B-010.

• Two keys are supplied. • Key cylinder material: Metal

• Besides the standard key (key number OH), six other keys are also available. See B-010.

• For the contact block mounting position, see right.

• For dimensions, see B-022.





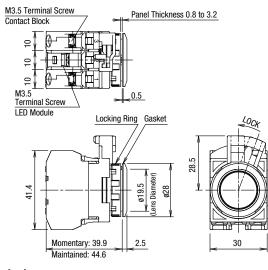
#### **Dimensions**

#### **Illuminated Pushbuttons**

#### 1 to 2 contacts

#### **Round Flush**





# 4 contacts

#### **Round Flush**

M3.5 Terminal Screw

-8

1st-tier

contact block (NO)

Contact Block

0

c

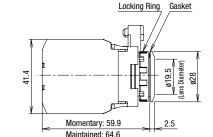
5

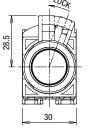
2nd-tier

contact block (NC)



# ø16 ø22 ø30 Miniature Pilot Lights





Panel Thickness 0.8 to 3.2

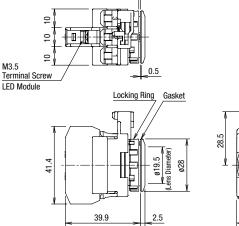
0.5

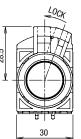
Panel Thickness 0.8 to 3.2

#### Pilot Lights Round Flush

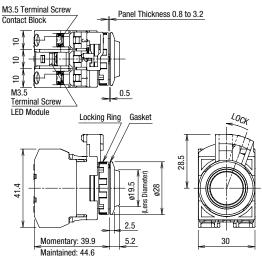
M3.5

CW
LW-F
LB
LBW
UP
Flush Bezel

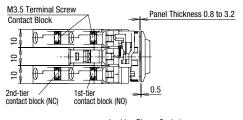


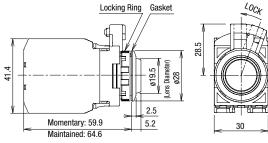


# **Round Extended**

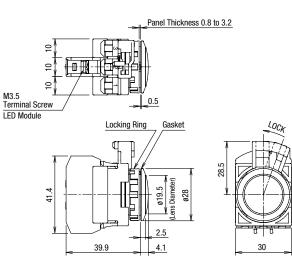


#### Round Extended





#### **Round Extended**



See B-008 for mounting hole layout.

APEM

Control Boxes

Emergency Stop Switches

Safety Products Explosion Proof

Terminal Blocks

Relays & Sockets

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

ø16

ø22

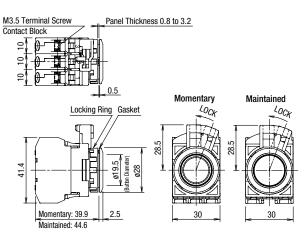
Circuit Protectors

Enabling Switches

All dimensions in mm.

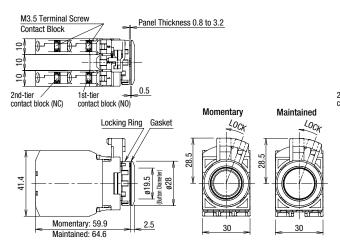
# Pushbuttons

#### 1 to 3 contacts **Round Flush**



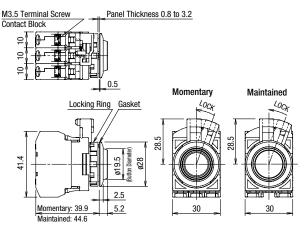
# 4 contacts

**Round Flush** 

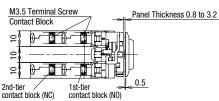


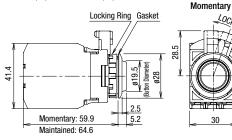
See **B-008** for mounting hole layout.

# **Round Extended**



#### **Round Extended**





LOCK 30

Maintained

ø30 Miniature

Pilot Lights

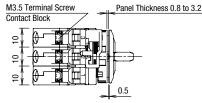
CW
LW-F
LB
LBW
UP
Flush Bezel

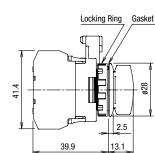
# ø22 Flush Silhouette Switches CW Series

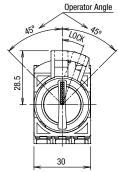
#### **Selector Switches**

# 1 to 3 contacts

#### **Knob Operator**

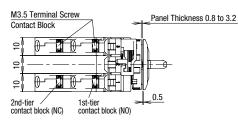






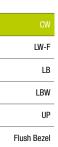
#### 4 contacts

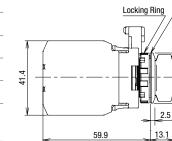
#### **Knob Operator**



Gasket

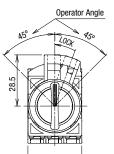






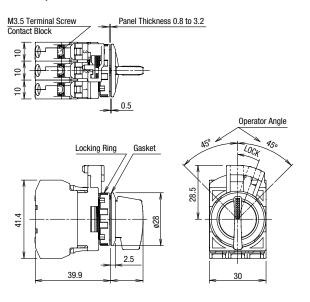
See B-008 for mounting hole layout.

59.9

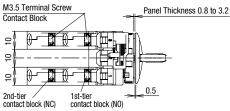


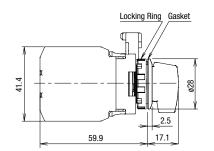
30

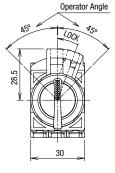
#### Lever Operator



#### Lever Operator







Protectors

Controllers

Operator

Interfaces

Sensors

AUTO-ID

Power Supplies LED Illumination



# ø22 Flush Silhouette Switches CW Series

Key No.

4

Key No.

Keys

**Reversible Key** 

8.8

Non-reversible Key

8.8

6.3

22

TDEC

Logo Stamping

ЮН

Key No. Stamping

22

Deg

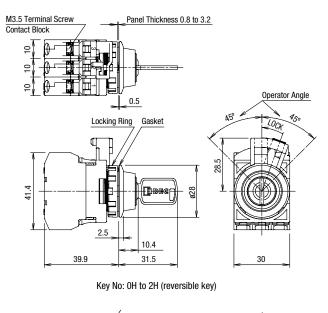
Logo Stamping

<u>з</u> Н

Key No. Stamping

# **Key Selector Switches**

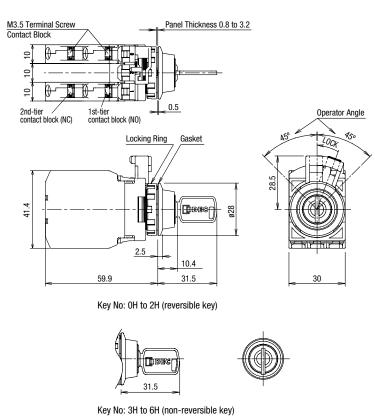
#### 1 to 3 contacts





Key No: 3H to 6H (non-reversible key)

#### 4 contacts



See **B-008** for mounting hole layout.



### APEM

Control Boxes

Emergency Stop Switches Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks Relays & Sockets

Circuit

Protectors Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

ø16
ø22
ø30
Miniature
Pilot Lights

CW	
LW-F	
LB	
LBW	
UP	
Flush Bezel	

📩 Download catalogs and CAD from http://apac.idec.com

# Silhouette Switches CW Series

Switches & Pilot Lig	<ul> <li>Ø22 Flush Silho</li> <li>Accessories</li> <li>Shape</li> </ul>
yhts	Locking Ring Wrench
APEM	
Switches & Pilot Lights	
Control Boxes	Mounting Hole Plug
Emergency Stop Switches	
Enabling Switches	

Pi									
Pilot Lights	Shaj	pe	Material	Part No.	art No. Package Remarks				
hts	Locking Ring Wre	nch	Metal			<ul> <li>Used to tighten the locking ring when installing the CW series control unit in a panel cut-out.</li> <li>Weight: Approx 150 g 110 36 4</li> </ul>			
APEM			(Brass)	MW9Z-T1	1				
Switches & Pilot Lights									
Control Boxes	Mounting Hole Plug					• Used to plug an unnecessary ø22.3 mm hole in the panel.			
Emergency Stop Switches			Polyamide	LW9Z-BP1	1	Degree of protection: IP65			
Enabling Switches			(black)			Panel thickness: 0.8 to 6.0 mm			
Safety Products	Rubber Boot					Degree of protection: IP66/67 UL Type 4X			
Explosion Proof	1					Panel thickness: 0.8 to 3.2 mm			
Terminal Blocks		① For round flush		CW9Z-D11	1	Use with round extended     illuminated pushbuttons/pushbuttons.			
Relays & Sockets			Rubber			*			
Circuit Protectors			(Transparent			• Degree of protection: IP66/67 UL Type 4X			
Power Supplies	2		silicon rubber)			Panel thickness: 0.8 to 3.2 mm			
LED Illumination	6	② For round extended		CW9Z-D12	1	Use with round extended     illuminated pushbuttons/pushbuttons.			
Controllers						Č			
Operator Interfaces									

Nameplates

Sensors AUTO-ID

	Description Legend				Material	Ordering No.	Package Quantity	Dimensions (mm)
Flush Silhouette	CWAM					Marking plate HWNP is necessary.     Degree of protection: IP65		
ø16						• Do not remove the gasket on the operator. $\frac{29}{29}$		
ø22		Order marking						
ø30		plate (HWNP) separately.	Plastic (black)	CWAM	1			
Miniature						4		
Pilot Lights						<u>822</u>		
						€ <u>0.9</u>		

Note: Cannot be used with HW/FB series control box types.

#### Making Plate

LW-F	Description	Material Part No.		Ordering No.	Package Quantity	Dimensions (mm)
LBW				HWNP-	1	<ul> <li>White legend on black background.</li> <li>Engraving area: W25, H7</li> </ul>
UP Flush Bezel	HAND AUTO	Aluminum (black) 1.0 mm thick	HWNP-	HWNP-□PN10	10	
						Thickness: 1.0 mm

• Specify a legend code in place of  $\Box$  in the Ordering No.

## Legends

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

**Maintenance Parts** 

Used for replacement only. Do not use the maintenance parts to remodel or expand the CW series control units.

Used for replacement only. Do not use t Shape		Material	Part No.	Ordering No.	Package Quantity	Remarks	Pilot Lights
Button 1 2	1 For round flush	Polyarylate ø19.5 H3.5	CW9Z-B11①	CW9Z-B11①PN05	5	<ul> <li>For maintained pushbuttons.</li> <li>Specify a button color code in place of ① in</li> </ul>	phts
	2 For round extended	Polyarylate ø19.5 H6.2	<b>CW9Z-B12</b> ①	CW9Z-B12①PN05	5	<ul> <li>the Part No.</li> <li>B (black), G (green), R (red), S (blue), W (white),</li> <li>Y (yellow)</li> </ul>	APEM
ens 2	1 Round Flush	Polyalylate	CW9Z-L11@-K	CW9Z-L11@-KPN05	5	Color code @: A (amber), C (clear), G (green), R (red), S (blue), Y (yellow)	Switches & Pilot Lights
	2 Round Extended	Polyalylate	CW9Z-L12@-K	CW9Z-L12@-KPN05	5	Use a clear (C) lens for pure white (PW) illumination. 1: For illuminated pushbutton, pilot light	Control Boxes Emergency Stop Switches
1 3	3 Round Extended	Polyalylate	CW9Z-L15@-K	CW9Z-L15@-KPN05	5	<ul> <li>2: For illuminated pushbutton</li> <li>3: For pilot light</li> </ul>	Enabling Switches
Single Contact Block		1NO	YW-E10R	YW-E10R	1	Push rod color: black Housing color: blue and black Terminal No.: 3-4	Explosion Proc
Push rod	Housing	1NC	YW-E01	YW-E01	1	Push rod color: red Housing color: reddish purple	Terminal Block
Double Contact Block	(					Terminal No.: 1-2 Push rod color: black Housing color: blue and black	Circuit Protectors
_	I	2N0 YW-EW2R	YW-EW2R0	YW-EW2R0	1	Terminal No. 1st tier: 13-14 2nd tier: 23-24	Power Supplie
Push rod	Housing	9 2NC <b>YW-EW02</b>			1	Push rod color: red Housing color: reddish purple	Controllers
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5		YW-EWUZ	YW-EW02	1	Terminal No. 1st tier: 11-12 2nd tier: 21-22	Operator Interfaces Sensors
(photo: YW-EW1R1)		1NO, 1NC	YW-EW1R1	YW-EW1R1	1	Push rod color: gray Housing color: reddish purple/blue Terminal No. 1st tier: 13-14 2nd tier: 21-22	AUTO-ID
Dummy Block		Polyamide (black)	CW-DB	CW-DBPN05	5		Flush Silhoue ø16
Locking Ring							ø22
		Polyamide (black)	CW9Z-LN	CW9Z-LNPN05	5		ø30
							Miniature
Gasket						Waterproof gasket between CW control unit bezel and the mounting panel.	Pilot Lights
C	)	Nitrile rubber	CW9Z-WM	CW9Z-WMPN10	10	01.6 m <sup>15</sup>	CW
2-ara Vou			-			Thickness: 0.5	LW-F
Spare Key Non-reve	ersible	Zinc	LA9Z-SK-0H	LA9Z-SK-OHPN02		Specify a key No. in place of □. 0H: Standard key (reversible) 1H to 2H: Reversible key	LB
Non-reversible		1 2010			2	1H to 2H: Reversible key	LBW

#### **LED Module**

LED Module Package quantity: 1						
	Shape	Operating Voltage Range	Current Draw	Part No.		
	(DEC [四月1]]	6V AC/DC ±10%	22 mA	CW-EAQ2		
		12V AC/DC ±10%	13 mA	CW-EAQ3		
		24V AC/DC ±10%	12 mA	CW-EAQ4		
		100/120V AC ±10%	2 mA	CW-EAQH		
		200/220V AC ±10%	2 mA	CW-EAQM		
		230/240V AC ±10%	2 mA	CW-EAQM4		

• Only one color is available for LSRD so there are no codes to specify the color in the part no.

APEM

# **Safety Precautions**

• Turn off the power to the CW series control units before installation, removal, wiring, and maintenance. Failure to turn power off may cause electrical shocks or fire hazard.

## **Operating Instructions**

# Notes for Operation

Control Boxes Emergency Stop Switches Enabling Switches Safety Products Explosion Proof Terminal Blocks Relavs & Sockets Circuit Protectors Power Supplies LED Illumination

Controllers

Operator

Interfaces

Sensors

AUTO-ID

. When using the CW series control units in a safetyrelated circuit of a control system, observe safety rules and regulations of each country concerning particular applications of the actual machines and facilities. Perform risk assessment before operation to ensure safety.

#### **Operating Conditions**

- In corrosive gas or high-temperature, high-humidity atmosphere, contact failure due to corrosion or color change or breakage of the housing may occur.
- Main parts of the CW series control units are made of plastics. Do not scratch the surface with a sharp object or apply excessive shocks or load, otherwise the control units may be damaged. In particular, keep the button, lens, and bezel from such damage, otherwise appearance and function may be impaired.
- . Do not apply detergents, cutting oils, or chemicals which may impair the function and appearance of the CW series control units.

## Removing and Installing the Contact Unit

1. To remove the contact block from the operator, push the yellow locking lever and turn it to the left.



- 2. To install, align the TOP marking
- on the operator with the TOP marking on the contact block mounting adaptor, and turn the locking lever to the right.

#### Panel Mounting

Remove the contact block from the operator. 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.

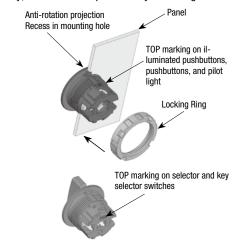
## Installation in Panel Cut-out

Remove the locking ring from the operator. With the anti-rotation projection on the operator aligned with the recess in the mounting hole, insert the operator into the mounting hole. Tighten the locking ring from the rear of the panel.

. 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 to 1.3 N·m. Failure to tighten the terminal screws may cause overheating and fire.

#### Note for Panel Mounting

When installing the operator in a panel cut-out, use the optional locking ring wrench (MW9Z-T1) to tighten the locking ring to a recommended tightening torque of 1.2 N·m. Do not use pliers and do not tighten excessively, otherwise the operator may be damaged.



#### Mounting Hole

- 1. Mounting hole dimensions are in compliance with IEC 60947-5-1.
- 2. If the anti-rotation projection is removed from the bezel, CW series control units can be mounted in ø22.3 mm mounting holes. To remove the anti-rotation projection, remove the gasket and use cutting pliers to break the projection.



LW-F

LB LBW

ΠP

APEM

Control Boxes

Stop Switches

Safety Products

Explosion Proof

Terminal Blocks

Relavs & Sockets

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Operator

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AUTO-ID

Circuit

Protectors Power Supplies

Emergency

Enabling

Switches

# **Operating Instructions**

#### Pushbuttons (momentary)

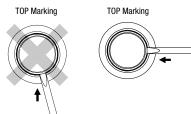
Momentary pushbutton caps cannot be removed. Do not tamper with the pushbutton caps using a screwdriver or pliers, otherwise the pushbutton caps may be damaged.

Pushbuttons (maintained) / Illuminated Pushbuttons / Pilot Lights Removing the button/lens

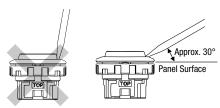
To remove the button or lens from a pushbutton, illuminated pushbutton or pilot light, insert a flat screwdriver under the flange of the lens at 90° from the TOP marking and twist the screwdriver.

Do not insert the screwdriver too deeply and do not apply excessive force to the lens, otherwise the bezel surface may be damaged.

#### [Screwdriver Insertion Direction]

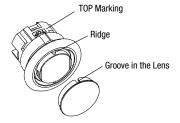


#### [Screwdriver Insertion Angle]



#### Installing the Lens

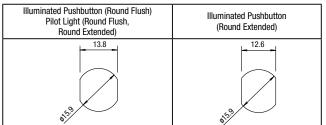
Turn the groove in the lens to the TOP marking on the operator housing. With the groove aligned with the ridge, press the lens in.



#### Marking

Marking plates are not available for CW series illuminated pushbuttons and pilot lights. Marking film can be inserted to indicate legends.

#### **Applicable Marking Film Size**



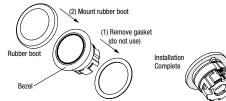
Thickness: 0.2 mm maximum

Film material: Polyester (recommended) Note: Film is not supplied and must be prepared by the user.

# Installing the Rubber Boot

When using in places where the switches are subjected to water splash or an excessive amount of dust, make sure to use the optional rubber boot. Remove the gasket from the operator, and mount the rubber boot to cover the bezel. Make sure that the rubber boot is properly fitted, otherwise, the waterproof and dustproof characteristics are not ensured.

#### How to Install the Rubber Boot



Gasket Note: Install the rubber boot before mounting the unit to the panel

#### Maintained Switches

Do not replace the button/lens while the operator is latched. Otherwise the internal structure will be damaged.

#### Selector Switches

Turn the selector operator or key to the detent positions.

# **Key Selector Switches**

To prevent malfunctions and damage, take the following precautions.

- Insert the key to the bottom before turning.
- Do not remove the key while turning.
- · Besides the standard key (OH), six other keys are available. Use a key with a key selector switch of a matching number indicated on the key cylinder. Standard key does not have a key number indication.
- Keys are available in two shapes. Key numbers 0H (standard),  $\dot{1}H,$  and 2H are reversible keys. Key numbers 3H, 4H, 5H, and 6H are non-reversible keys. Make sure of correct insertion direction.

Flush Silhouette
ø16
ø22
ø30
Miniature
Pilot Lights

CW
LW-F
LB
LBW
UP
Flush Bezel

Stop Switches

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Terminal Blocks Relays & Sockets

Circuit

Protectors

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AUTO-ID

ø16

ø22

ø30 Miniature Pilot Lights

LW-F LB LBW UP Flush Bezel

Enabling Switches

# Contact Blocks and LED Modules

To remove the contact block from the operator, insert a flat screwdriver under the latch and push down the screwdriver as shown below. Before removing the LED module, first remove all contact blocks, and remove the LED module in the same manner.





# Nameplate / Marking Plate

• Installing the marking plate on a nameplate



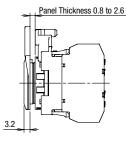
 To remove the marking plate, insert the flat screwdriver between the marking plate and nameplate.

Nameplate



Flat Screwdriver Marking Plate Marking Plate Nameplate

Note: When using a nameplate, the mounting panel thickness is 2.6 mm maximum.



# Wiring

#### Applicable Wires

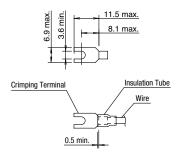
Stranded wire:2.0 mm² maximum (14AWG)Solid wire:ø1.6 mm maximum (16AWG)One or two wires can be connected to the terminal.

#### **Applicable Crimping Terminals**

#### [Spade terminal]

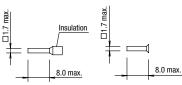
When using crimping terminals, be sure to use insulating tubes or use insulated crimping terminals.

Note: Ring terminals cannot be used.



[Ferrule]

When connecting two ferrules to one terminal, use ferrules without insulation.



When using spade terminals or ferrules, insert them to the bottom.

#### [Solid Wire]

When connecting two wires directly, use wires of the same size.



## SAPEN01A\_B CW\_October 2021

# **Ordering Terms and Conditions**

#### Thank you for using IDEC Products.

By purchasing products listed in our catalogs, datasheets, and the like (hereinafter referred to as "Catalogs") you agree to be bound by these terms and conditions. Please read and agree to the terms and conditions before placing your order.

#### 1. Notes on contents of Catalogs

(1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.

Also, durability varies depending on the usage environment and usage conditions.

- (2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
- (3) The specifications / appearance and accessories of IDEC products listed in Catalogs are subject to change or termination of sales without notice, for improvement or other reasons.
- (4) The content of Catalogs is subject to change without notice.

#### 2. Note on applications

- (1) If using IDEC products in combination with other products, confirm the applicable laws / regulations and standards. Also, confirm that IDEC products are compatible with your systems, machines, devices, and the like by using under the actual conditions. IDEC shall bear no liability whatsoever regarding the compatibility with IDEC products.
- (2) The usage examples and application examples listed in Catalogs are for reference purposes only. Therefore, when introducing a product, confirm the performance and safety of the instruments, devices, and the like before use. Furthermore, regarding these examples, IDEC does not grant license to use IDEC products to you, and IDEC offers no warranties regarding the ownership of intellectual property rights or non-infringement upon the intellectual property rights of third parties.
- (3) When using IDEC products, be cautious when implementing the following.
   i. Use of IDEC products with sufficient allowance for rating and performance
  - ii. Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
  - Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications
- (4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.
- (5) IDEC products are developed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use an IDEC product for these applications, unless otherwise agreed upon between you and IDEC, IDEC shall provide no guarantees whatsoever regarding IDEC products.
  - i. Use in applications that require a high degree of safety, including nuclear power control equipment, transportation equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.), equipment for use in outer space, elevating equipment, medical instruments, safety devices, or any other equipment, instruments, or the like that could endanger life or human health
  - ii. Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
  - iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

#### 3. Inspections

We ask that you implement inspections for IDEC products you purchase without delay, as well as thoroughly keep in mind management/maintenance regarding handling of the product before and during the inspection.

#### 4. Warranty

(1) Warranty period

The warranty period for IDEC products shall be one (1) year after purchase or delivery to the specified location. However, this shall not apply in cases where there is a different specification in the Catalogs or there is another agreement in place between you and IDEC.

(2) Warranty scope

Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.

- i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
- ii. The failure was caused by reasons other than an IDEC product
- iii. Modification or repair was performed by a party other than IDEC
- iv. The failure was caused by a software program of a party other than  $\ensuremath{\mathsf{IDEC}}$
- v. The product was used outside of its original purpose
- vi. Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and Catalogs

vii. The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from  $\ensuremath{\mathsf{IDEC}}$ 

viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)

Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

#### 5. Limitation of liability

The warranty listed in this Agreement is the full and complete warranty for IDEC products, and IDEC shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to an IDEC product.

#### 6. Service scope

The prices of IDEC products do not include the cost of services, such as dispatching technicians. Therefore, separate fees are required in the following cases.

- Instructions for installation / adjustment and accompaniment at test operation (including creating application software and testing operation, etc.)
- (2) Maintenance inspections, adjustments, and repairs
- (3) Technical instructions and technical training
- (4) Product tests or inspections specified by you

The above content assumes transactions and usage within your region. Please consult with an IDEC sales representative regarding transactions and usage outside of your region. Also, IDEC provides no guarantees whatsoever regarding IDEC products sold outside your region.

# IDEC CORPORATION

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USA	IDEC Corporation	Singapore	IDEC Izumi Asia Pte. Ltd.
EMEA	APEM SAS	Thailand	IDEC Asia (Thailand) Co., Ltd.
		India	IDEC Controls India Private Ltd.

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# **Mouser Electronics**

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# IDEC:

CW4L-M1E10Q4PW CW4L-A2E10Q4R CW4L-M1E01Q4G CW4L-A1E10Q4R CW4L-M1E10Q4Y CW4L-M1E10QM4G CW4L-M1E01Q4PW CW4L-M1E01QM4G CW4L-M1E01QM4S CW4L-A2E10Q4G CW4L-M1E01Q4R CW4L-M1E10QM4PW CW4L-M1E10Q4G CW1K-21BE21 CW4L-M1E10QM4S CW4K-31BE20 CW1K-3AE20 CW4L-M1E01Q4S CW4L-M1E01QM4R CW4L-M1E01QM4Y CW4L-M1E10QM4R CW4L-M1E10QM4Y CW4K-3AE20 CW1K-31BE20 CW4L-M1E10Q4S CW4K-21BE20 CW1K-2AE20 CW4L-A1E10Q4G CW4K-2AE20 CW4L-M1E01Q4Y CW4L-M1E01QM4PW