IDEC

Think Automation and beyond...

Compact & smart with Push-in connection

IDEC CORPORATION

S^3

CONNECT

All thoughts focused on the same goal

Since the late 1970s, IDEC has continued to instill and pursue "Save and Safe", as part of our corporate DNA. Along with the rapid advancement in machine intelligence and demands for environmental resistance and high reliability in recent years, we need to face societal issues such as shortage in workforce.

To solve these issues, we have set as our goals "Safe, Simple & Smart=S^3 (S cube)", aiming to provide society with products and services that will bring about greater innovation and lasting quality.

Safe

Products anyone can use with safety and assurance, from a company seeking to be number one in safety

Simple

Products appreciated by all our customers for their ease of connection regardless of experience

Smart

Products that make labor-saving and space-saving a reality

Useful NEW

We provide easy and user-friendly products with new technology.

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 enviromentally friendly.

R Red	G Green	Y Yellow	A Amber	S Blue	PW Pure white

6 different color lenses

One LED
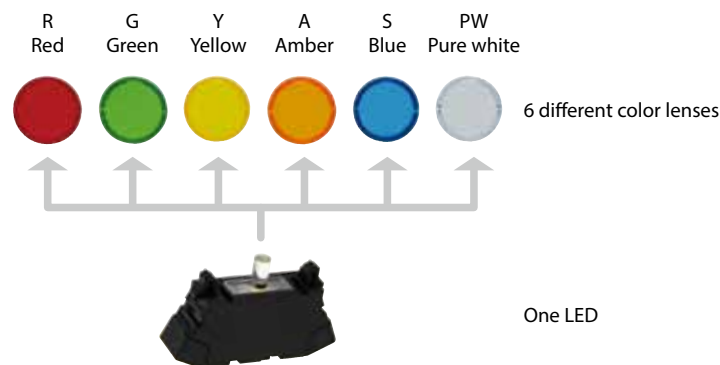
High visibility with new LED

Brighter and clearer compared to conventional LEDS

	R Red	A Amber	Y Yellow	G Green	S Blue	PW Pure white
Conventional LEDs						
NEW LEDs						
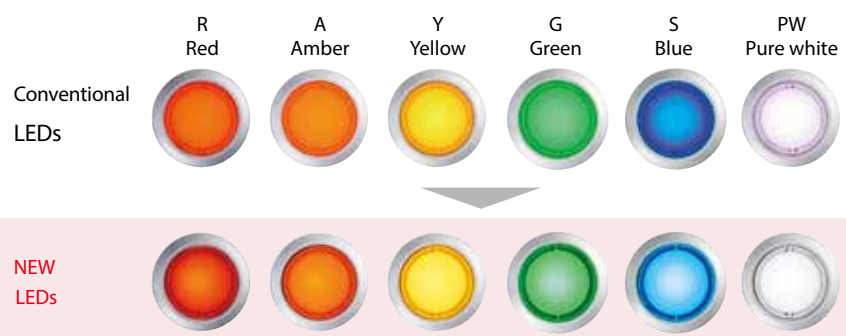
ISO3864-4
Safety color compliant

(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

Push-in

Simple wiring for greater work efficiency

Ferrules and solid wires can be connected simply by push-in insertion, without a screwdriver. (*1)
To remove, a flat-blade screwdriver is inserted in a simple two-action process.
Since wiring can be performed regardless of operators' skill level, wiring time is reduced.

*1) When connecting stranded wire,
     insert the wire while holding down the pusher
     with a flat-blade screwdriver.

Connecting

1
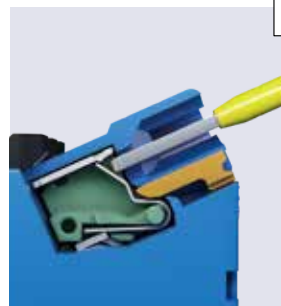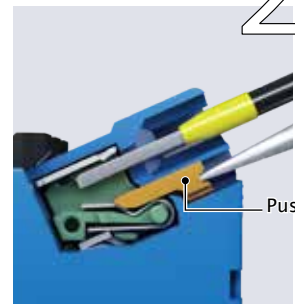
Push the wire straight in as far as it will go.

2

Connection is completed. Pull lightly to make sure it is firmly in place.

Removing

1

Hold down the pusher with a flat-blade screwdriver.

2

While holding down the pusher, pull out the wire. Release the flat-blade screwdriver.

Pusher

Time saving and efficient

Push-in connections are made simple by inserting the wire, reducing wiring time by approximately 55% compared to conventional screw terminals.

[Conditions]
Push-in: Insert wire with ferrule.
Screw terminals: With screw loosened, insert wire, then tighten
                 with electric driver.

Approx.**55%** reduced (*2)

Push-in
HW Series

Conventional
screw terminals

*2) As of IDEC research (as of January 2020)

Reliable and easy

Finger-safe structure and vibration resistance. What's more, the space-saving design means better workability in a smaller space.

Stays firmly in place
Since the ferrule is held in place by a spring load, the wiring remains taut and vibration resistance is improved.

Finger-safe structure
IP20 Finger-safe protection enables wiring to be performed without direct contact between screwdriver and conductive part.

Pusher
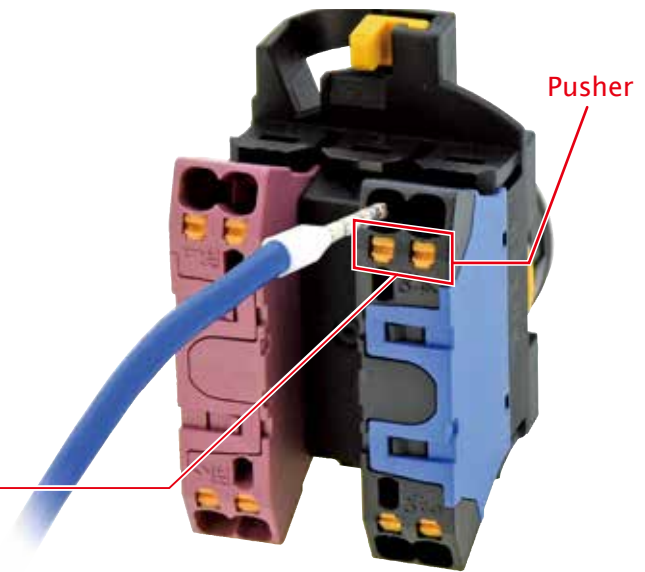
Wiring procedure comparison

Work can be performed without using tools and regardless of operators' skill level.

*1) When ferrule is used.

Conventional screw terminal

Remove screw	Pass wire through crimping terminal	Tighten screw	Check

Push-in terminal (*1)

Insert wire	Simple one-step operation	Pull lightly to confirm

No additional tightening needed

Because screws are not used on push-in terminals, re-tightening of screws is not required.

Product Upgrade

The superior functions of the conventional CW Series still remain while improving ease of use.

Contact block depth reduced `Smart`

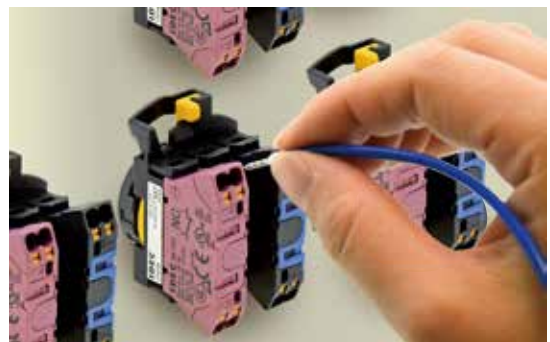Saves space inside panel and enables downsizing of equipment.

Pushbuttons

Panel depth
36.4mm

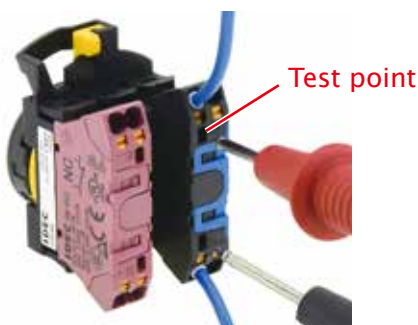## NEW Angled Connections

Enables flexible wiring. `Smart`

Added Value

Our aim is to create products that enable customers to experience the utmost usability.

NEW Test point

A test point is available to check connectivity of the wiring.
Check the connectivity easily using a tester.

Test point

Sub-Assembled Units

Sub-assembled units can be ordered for flexible use, such as sudden changes in design.

Products

Pushbuttons:	see page 9	Selector Switches:	see page 17
Illuminated pushbuttons:	see page 12	Key Selector Switches:	see page 21
Pilot lights:	see page 15		

c(UL)us LISTED △ CE CCC

• See website for details on approvals and standards.

Contact Ratings

Rated Insulation Voltage	300V
Rated Thermal Current	10A

Rated Operating Voltage and Current by Utilization Category

HW-P01 (*1: Specification 1)

Rated Operating Voltage (Ue)			24V	48V	50V	110V	220V
Rated Operating Current (Ie)	AC 50/60 Hz	Resistive Load (AC-12)	10A	—	10A	10A	6A
		Inductive Load (AC-15)	10A	—	7A	5A	3A
	DC	Resistive Load (DC-12)	10A	5A	—	2.2A	1.1A
		Inductive Load (DC-13)	5A	2A	—	1.1A	0.6A

HW-P10R (*1: Specification 2)

Rated Operating Voltage (Ue)			24V	48V	50V	110V	220V
Rated Operating Current (Ie)	AC 50/60 Hz	Resistive Load (AC-12)	5A	—	5A	5A	3A
		Inductive Load (AC-15)	5A	—	3.5A	2.5A	1.5A
	DC	Resistive Load (DC-12)	5A	2.5A	—	1.1A	0.55A
		Inductive Load (DC-13)	2.5A	1A	—	0.55A	0.3A

• The operating current represents making and breaking currents (IEC 60947-5-1).
• Minimum applicable load: 3V AC/DC, 5 mA (applicable range may vary with operating conditions)

*1) UL, c-UL rating: A300, CCC rating: A300, TUV rating: A300
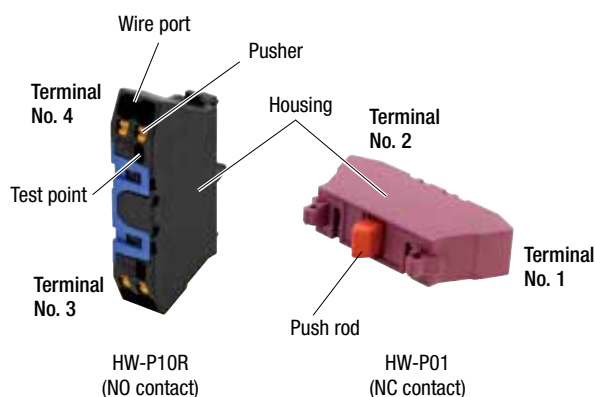
Degree of Protection (Table 1)

	IP65	IP66	IP67	UL Type 4X
Illuminated Pushbutton	Yes	No (*2)	No (*2)	No (*2)
Pilot lights	Yes	Yes	No	Yes
Pushbutton	Yes	No (*2)	No (*2)	No (*2)
Selector Switch	Yes	Yes	Yes	Yes
Key Selector Switch	Yes	Yes	No	Yes

*2) Yes when used with rubber boot (CW9Z-D11, -D12)

LED Module

Rated Insulation Voltage	250V		
Rated Operating Voltage	6V AC/DC	12V AC/DC	24V AC/DC
Operating Voltage Range	6V AC/DC ±10%	12V AC/DC ±10%	24V AC/DC ±10%
LED Module Part No.	CW-PAQ2	CW-PAQ3	CW-PAQ4
Current Draw — AC	16 mA	7 mA	6 mA
Current Draw — DC	12 mA	6 mA	6 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 — Limited current circuit / Noise protection circuit X2 — Rectifier circuit / Dimmer protection circuit		

Push-in Contact Block (HW-P)

Wire port

Pusher

Terminal No. 4

Housing

Terminal No. 2

Test point

Terminal No. 1

Terminal No. 3

Push rod

HW-P10R (NO contact)

HW-P01 (NC contact)

Part No.	HW-P10R	HW-P01
Contact		
	1NO	1NC
Contact No.	3-4	1-2
Housing	Blue / Black	Purple red
Push Rod	Black	Red
Weight	Approx. 8g	

Specifications

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 (IEC60664-1)
Impulse Withstand Voltage	2.5kV (IEC60664-1 / IEC60947-5-1)
Pollution Degree	3 (IEC60947-5-1)
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^2 Damage limits: 1000 m/s^2
Mechanical Life (minimum operations)	Pushbutton/Illuminated pushbutton Momentary: 2,000,000 (single contact block) Maintained: 250,000 (single contact block) Selector switch: 250,000 (single contact block) Key selector switch: 250,000 (single contact block)
Electrical Life (*1) (minimum operations)	50,000 (Rated Operating Current: "See Specification 1" on page 7) 100,000 (Rated Operating Current: "See Specification 2" on page 7)
Degree of Protection	Panel front: See Degree of Protection table on page 7 Terminal: IP20 (IEC 60529)
Short-circuit Protection	250V/10A fuse (Type aM IEC 60269-1, IEC 602069-2)
Electrical Shock Protection	Class II (IEC61140)
Terminal Style	Push-in terminal
Bezel Material	Polyamide
Recommended Tightening Torque for Locking Ring	1.2 N·m

*1) Switching frequency
    Momentary: 1800 operations/h
    Maintained: 900 operations/h

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°

Weight (Examples)

Weight (approx.)	Illuminated Pushbutton : 31g (CW1L-M1P02Q4, 2 contacts) Pushbutton : 37g (CW1B-M1P03, 3 contacts) Pilot lights : 24g (CW-PAQ□) Selector Switch : 40g (CW1S-2P03, 3 contacts) Key Selector Switch : 49g (CW1K-2AP03, 3 contacts)

Mounting Hole Layout

(Dimensions in mm)

Panel Cut (IEC60947-5-1)

R0.8 max.

$3.2^{+0.2}_{0}$

$ø22.3^{+0.4}_{0}$

$24.1^{+0.4}_{0}$

50

30
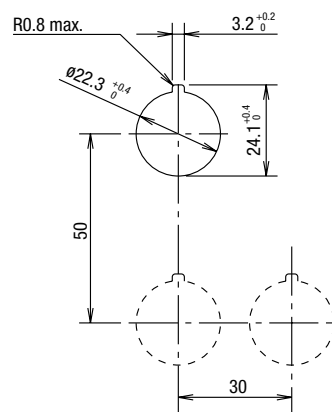
Note: Determine mounting centers to ensure easy operation.

IDEC

Pushbuttons

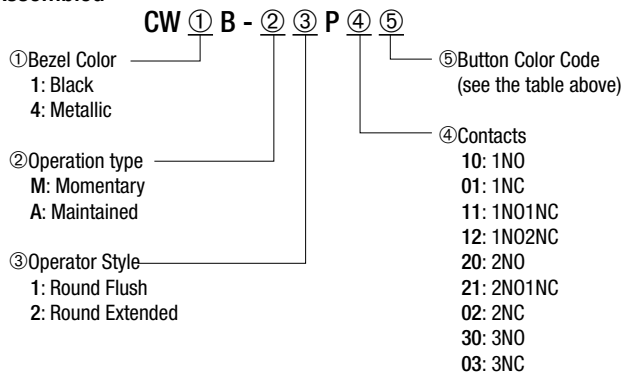### Assembled

Package Quantity: 1

Operator Style	Bezel Color	Operation type	Contact Configuration	Part No. (Ordering No.)	⑤ Button Color Code
Round Flush	Black	M: Momentary	1NO	CW1B-M1P10⑤	B (black) G (green) R (red) Y (yellow) S (blue) W (white)
			1NC	CW1B-M1P01⑤	
			1NO-1NC	CW1B-M1P11⑤	
			2NO	CW1B-M1P20⑤	
			2NC	CW1B-M1P02⑤	
			3NO	CW1B-M1P30⑤	
	Metallic	M: Momentary	1NO	CW4B-M1P10⑤	B (black) G (green) R (red) Y (yellow) S (blue) W (white)
			1NC	CW4B-M1P01⑤	
			1NO-1NC	CW4B-M1P11⑤	
			2NO	CW4B-M1P20⑤	
			2NC	CW4B-M1P02⑤	
			3NO	CW4B-M1P30⑤	
Round Extended	Black	M: Momentary	1NO	CW1B-M2P10⑤	B (black) G (green) R (red) Y (yellow) S (blue) W (white)
			1NC	CW1B-M2P01⑤	
			1NO-1NC	CW1B-M2P11⑤	
			2NO	CW1B-M2P20⑤	
	Metallic	M: Momentary	1NO	CW4B-M2P10⑤	B (black) G (green) R (red) Y (yellow) S (blue) W (white)
			1NC	CW4B-M2P01⑤	
			1NO-1NC	CW4B-M2P11⑤	
			2NO	CW4B-M2P20⑤	

- Pushbuttons with 1 contact block contain 2 dummy blocks. Pushbuttons with 2 contact blocks contain 1 dummy block.
- For maintained type, select from sub-assembled units.
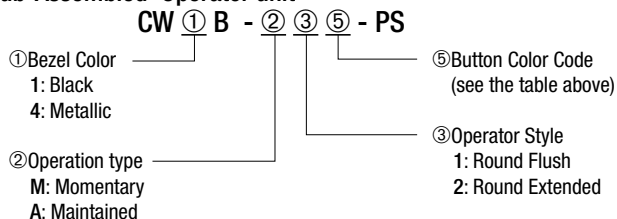- **For other types, select from sub-assembled units.**

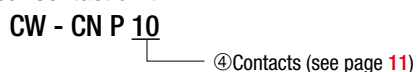## Part No. Example

Assembled and sub-assembled unit

Assembled

CW ① B - ② ③ P ④ ⑤

①Bezel Color
  1: Black
  4: Metallic

②Operation type
  M: Momentary
  A: Maintained

③Operator Style
  1: Round Flush
  2: Round Extended

④Contacts
  10: 1NO
  01: 1NC
  11: 1NO1NC
  12: 1NO2NC
  20: 2NO
  21: 2NO1NC
  02: 2NC
  30: 3NO
  03: 3NC

⑤Button Color Code (see the table above)

Sub-Assembled Operator unit

CW ① B - ② ③ ⑤ - PS

①Bezel Color
  1: Black
  4: Metallic

②Operation type
  M: Momentary
  A: Maintained

③Operator Style
  1: Round Flush
  2: Round Extended

⑤Button Color Code (see the table above)

Sub-Assembled Contact unit

CW - CN P 10

④Contacts (see page 11)

Pushbuttons

Sub-Assembled

Assembled	=	Operator unit	+	Contact unit (Contact block, dummy block, connecting unit)

<Reference> Assembled Part No. Example

Name / Shape	Operation	Contact Configuration	<Reference> Assembled Part No.	⑤ Button Color Code
Round Flush (Black)	Momentary	1NO	○CW1B-M1P10⑤	
		1NC	○CW1B-M1P01⑤	
		1NO-1NC	○CW1B-M1P11⑤	
		2NO	○CW1B-M1P20⑤	
		2NC	○CW1B-M1P02⑤	B (black)
		3NO	○CW1B-M1P30⑤	G (green)
		3NC	CW1B-M1P03⑤	R (red)
	Maintained	1NO	CW1B-A1P10⑤	Y (yellow)
		1NC	CW1B-A1P01⑤	S (blue)
		1NO-1NC	CW1B-A1P11⑤	W (white)
		2NO	CW1B-A1P20⑤	
		2NC	CW1B-A1P30⑤	
		3NO	CW1B-A1P03⑤	
		3NC	CW1B-A1P02⑤	
Round Flush (Metallic)	Momentary	1NO	○CW4B-M1P10⑤	
		1NC	○CW4B-M1P01⑤	
		1NO-1NC	○CW4B-M1P11⑤	
		2NO	○CW4B-M1P20⑤	
		2NC	○CW4B-M1P02⑤	B (black)
		3NO	○CW4B-M1P30⑤	G (green)
		3NC	CW4B-M1P03⑤	R (red)
	Maintained	1NO	CW4B-A1P10⑤	Y (yellow)
		1NC	CW4B-A1P01⑤	S (blue)
		1NO-1NC	CW4B-A1P11⑤	W (white)
		2NO	CW4B-A1P20⑤	
		2NC	CW4B-A1P02⑤	
		3NO	CW4B-A1P30⑤	
		3NC	CW4B-A1P03⑤	
Round Extended (Black)	Momentary	1NO	○CW1B-M2P10⑤	
		1NC	○CW1B-M2P01⑤	
		1NO-1NC	○CW1B-M2P11⑤	B (black)
		2NO	○CW1B-M2P20⑤	G (green)
		2NC	CW1B-M2P02⑤	R (red)
	Maintained	1NO	CW1B-A2P10⑤	Y (yellow)
		1NC	CW1B-A2P01⑤	S (blue)
		1NO-1NC	CW1B-A2P11⑤	W (white)
		2NO	CW1B-A2P20⑤	
		2NC	CW1B-A2P02⑤	
Round Extended (Metallic)	Momentary	1NO	○CW4B-M2P10⑤	
		1NC	○CW4B-M2P01⑤	
		1NO-1NC	○CW4B-M2P11⑤	B (black)
		2NO	○CW4B-M2P20⑤	G (green)
		2NC	CW4B-M2P02⑤	R (red)
	Maintained	1NO	CW4B-A2P10⑤	Y (yellow)
		1NC	CW4B-A2P01⑤	S (blue)
		1NO-1NC	CW4B-A2P11⑤	W (white)
		2NO	CW4B-A2P20⑤	
		2NC	CW4B-A2P02⑤	

<Sub-Assembled> Ordering No.

Package Quantity: 1

Operator Unit

Name / Shape	Part No. (Ordering No.)
Round Flush (Black)	CW1B-M1⑤-PS
	CW1B-A1⑤-PS
Round Flush (Metallic)	CW4B-M1⑤-PS
	CW4B-A1⑤-PS
Round Extended (Black)	CW1B-M2⑤-PS
	CW1B-A2⑤-PS
Round Extended (Metallic)	CW4B-M2⑤-PS
	CW4B-A2⑤-PS

Contact unit

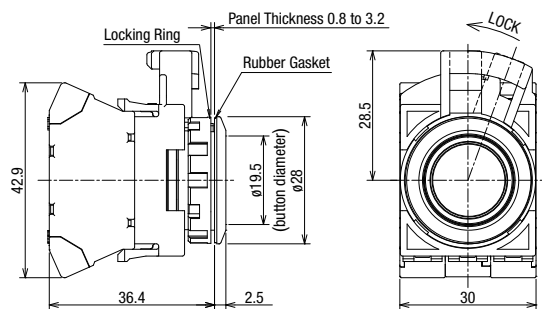| Shape	Contact Configuration	Part No. (Ordering No.)
	1NO	CW-CNP10
	1NC	CW-CNP01
	1NO-1NC	CW-CNP11
	2NO	CW-CNP20
	2NC	CW-CNP02
	3NO	CW-CNP30
	3NC	CW-CNP03
	1NO	CW-CNP10
	1NC	CW-CNP01
	1NO-1NC	CW-CNP11
	2NO	CW-CNP20
	2NC	CW-CNP02
	3NO	CW-CNP30
	3NC	CW-CNP03
	1NO	CW-CNP10
	1NC	CW-CNP01
	1NO-1NC	CW-CNP11
	2NO	CW-CNP20
	2NC	CW-CNP02
	3NO	CW-CNP30
	3NC	CW-CNP03
	1NO	CW-CNP10
	1NC	CW-CNP01
	1NO-1NC	CW-CNP11
	2NO	CW-CNP20
	2NC	CW-CNP02
	3NO	CW-CNP30
	3NC	CW-CNP03
	1NO	CW-CNP10
	1NC	CW-CNP01
	1NO-1NC	CW-CNP11
	2NO	CW-CNP20
	2NC	CW-CNP02
	1NO	CW-CNP10
	1NC	CW-CNP01
	1NO-1NC	CW-CNP11
	2NO	CW-CNP20
	2NC	CW-CNP02
	1NO	CW-CNP10
	1NC	CW-CNP01
	1NO-1NC	CW-CNP11
	2NO	CW-CNP20
	2NC	CW-CNP02
	1NO	CW-CNP10
	1NC	CW-CNP01
	1NO-1NC	CW-CNP11
	2NO	CW-CNP20
	2NC	CW-CNP02

• Part no. marked with ○ can be purchased as an assembled product.

• Specify a button color code in place of ⑤ in the Part No. Select the code from the left table.

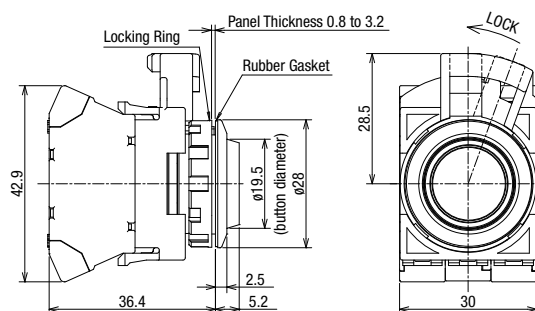• For mounting positions of contacts, see page 27.

Pushbuttons

Dimensions

All dimensions in mm.

• Round Flush

• Round Extended

• See page 8 for mounting hole layout.

Illuminated Pushbuttons (Round Flush / Round Extended)
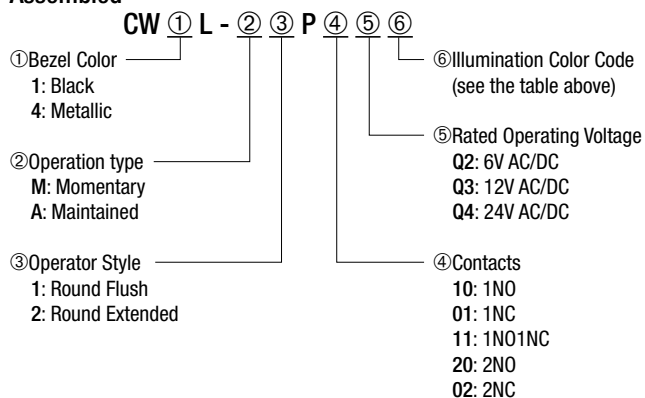
Assembled

Package Quantity: 1

Operator Style	Bezel Color	Operation type	Rated Operating Voltage	Contact Configuration	Part No. (Ordering No.)	⑥ Illumination Color Code
Round Flush	Black	M: Momentary	12V AC/DC	1NO	CW1L-M1P10Q3 ⑥	R (red) G (green) Y (yellow) A (amber) S (blue) PW (pure white)
			24V AC/DC	1NO	CW1L-M1P10Q4 ⑥	
				1NC	CW1L-M1P01Q4 ⑥	
				1NO-1NC	CW1L-M1P11Q4 ⑥	
				2NO	CW1L-M1P20Q4 ⑥	
	Metallic	M: Momentary	12V AC/DC	1NO	CW4L-M1P10Q3 ⑥	
			24V AC/DC	1NO	CW4L-M1P10Q4 ⑥	
				1NC	CW4L-M1P01Q4 ⑥	
				1NO-1NC	CW4L-M1P11Q4 ⑥	
				2NO	CW4L-M1P20Q4 ⑥	
		A: Maintained	24V AC/DC	1NO	CW4L-A1P10Q4 ⑥	
				1NC	CW4L-A1P01Q4 ⑥	
				1NO-1NC	CW4L-A1P11Q4 ⑥	
				2NO	CW4L-A1P20Q4 ⑥	
Round Extended	Black	M: Momentary	12V AC/DC	1NO	CW1L-M2P10Q3 ⑥	R (red) G (green) Y (yellow) A (amber) S (blue) PW (pure white)
			24V AC/DC	1NO	CW1L-M2P10Q4 ⑥	
				1NC	CW1L-M2P01Q4 ⑥	
				1NO-1NC	CW1L-M2P11Q4 ⑥	
				2NO	CW1L-M2P20Q4 ⑥	
	Metallic	M: Momentary	24V AC/DC	1NO	CW4L-M2P10Q4 ⑥	
				1NC	CW4L-M2P01Q4 ⑥	
				1NO-1NC	CW4L-M2P11Q4 ⑥	
				2NO	CW4L-M2P20Q4 ⑥	

• Specify a button color code in place of ⑥ in the Part No.
• Illuminated pushbuttons are built-in with an LED unit. For maintenance LED units, see page 29.
• Illuminated pushbuttons with 1 contact block contain a dummy blocks.
• Printed film can be inserted. For size details, see page 32.
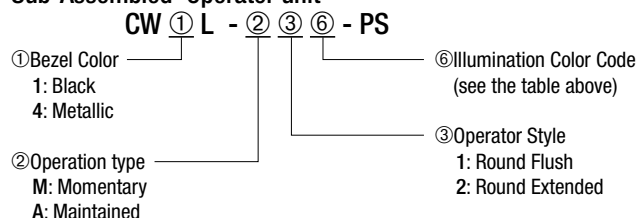• For other types, select from sub-assembled units.

Part No. Example
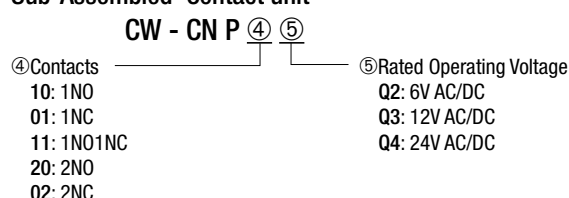
Assembled and sub-assembled unit

Assembled

CW ① L - ② ③ P ④ ⑤ ⑥

①Bezel Color
  1: Black
  4: Metallic

②Operation type
  M: Momentary
  A: Maintained

③Operator Style
  1: Round Flush
  2: Round Extended

④Contacts
  10: 1NO
  01: 1NC
  11: 1NO1NC
  20: 2NO
  02: 2NC

⑤Rated Operating Voltage
  Q2: 6V AC/DC
  Q3: 12V AC/DC
  Q4: 24V AC/DC

⑥Illumination Color Code
  (see the table above)

Sub-Assembled Operator unit

CW ① L - ② ③ ⑥ - PS

①Bezel Color
  1: Black
  4: Metallic

②Operation type
  M: Momentary
  A: Maintained

③Operator Style
  1: Round Flush
  2: Round Extended

⑥Illumination Color Code
  (see the table above)

Sub-Assembled Contact unit

CW - CN P ④ ⑤

④Contacts
  10: 1NO
  01: 1NC
  11: 1NO1NC
  20: 2NO
  02: 2NC

⑤Rated Operating Voltage
  Q2: 6V AC/DC
  Q3: 12V AC/DC
  Q4: 24V AC/DC

Illuminated Pushbuttons (Round Flush / Round Extended)

Sub-Assembled

| Assembled | = | Operator unit | + | Contact unit for illuminated
(Contact block, LED unit, dummy block (1 block), connecting unit) |

\<Reference\> Assembled Part No. Example

Name / Shape	Operation	Contact Configuration	\<Reference\> Assembled Part No.	⑥ Illumination Color Code
Round Flush (Black)	Momentary	1NO	○CW1L-M1P10Q4⑥	R G Y A S PW
		1NC	○CW1L-M1P01Q4⑥	
		1NO-1NC	○CW1L-M1P11Q4⑥	
		2NO	○CW1L-M1P20Q4⑥	
		2NC	CW1L-M1P02Q4⑥	
	Maintained	1NO	CW1L-A1P10Q4⑥	
		1NC	CW1L-A1P01Q4⑥	
		1NO-1NC	CW1L-A1P11Q4⑥	
		2NO	CW1L-A1P20Q4⑥	
		2NC	CW1L-A1P02Q4⑥	
Round Flush (Metallic)	Momentary	1NO	○CW4L-M1P10Q4⑥	R G Y A S PW
		1NC	○CW4L-M1P01Q4⑥	
		1NO-1NC	○CW4L-M1P11Q4⑥	
		2NO	○CW4L-M1P20Q4⑥	
		2NC	CW4L-M1P02Q4⑥	
	Maintained	1NO	○CW4L-A1P10Q4⑥	
		1NC	○CW4L-A1P01Q4⑥	
		1NO-1NC	○CW4L-A1P11Q4⑥	
		2NO	○CW4L-A1P20Q4⑥	
		2NC	CW4L-A1P02Q4⑥	
Round Extended (Black)	Momentary	1NO	○CW1L-M2P10Q4⑥	R G Y A S PW
		1NC	○CW1L-M2P01Q4⑥	
		1NO-1NC	○CW1L-M2P11Q4⑥	
		2NO	○CW1L-M2P20Q4⑥	
		2NC	CW1L-M2P02Q4⑥	
	Maintained	1NO	CW1L-A2P10Q4⑥	
		1NC	CW1L-A2P01Q4⑥	
		1NO-1NC	CW1L-A2P11Q4⑥	
		2NO	CW1L-A2P20Q4⑥	
		2NC	CW1L-A2P02Q4⑥	
Round Extended (Metallic)	Momentary	1NO	○CW4L-M2P10Q4⑥	R G Y A S PW
		1NC	○CW4L-M2P01Q4⑥	
		1NO-1NC	○CW4L-M2P11Q4⑥	
		2NO	○CW4L-M2P20Q4⑥	
		2NC	CW4L-M2P02Q4⑥	
	Maintained	1NO	CW4L-A2P10Q4⑥	
		1NC	CW4L-A2P01Q4⑥	
		1NO-1NC	CW4L-A2P11Q4⑥	
		2NO	CW4L-A2P20Q4⑥	
		2NC	CW4L-A2P02Q4⑥	

- Part No. marked with ○ can be purchased as an assembled product.
- Specify a illuminated button color code in place of ⑥ in the Part No. R (red), G (green), Y (yellow), A (amber), S (blue), PW (pure white)
- The assembled part no. above is when the operating voltage is 24V AC/DC.

\<Sub-Assembled\> Ordering No.   Package Quantity: 1

Operator Unit

Name / Shape	Part No. (Ordering No.)
Round Flush (Black)	CW1L-M1⑥-PS
	CW1L-A1⑥-PS
Round Flush (Metallic)	CW4L-M1⑥-PS
	CW4L-A1⑥-PS
Round Extended (Black)	CW1L-M2⑥-PS
	CW1L-A2⑥-PS
Round Extended (Metallic)	CW4L-M2⑥-PS
	CW4L-A2⑥-PS

Contact unit for illuminated

Shape	Contact Configuration	Part No. (Ordering No.)
	1NO	CW-CNP10⑤
	1NC	CW-CNP01⑤
	1NO-1NC	CW-CNP11⑤
	2NO	CW-CNP20⑤
	2NC	CW-CNP02⑤
	1NO	CW-CNP10⑤
	1NC	CW-CNP01⑤
	1NO-1NC	CW-CNP11⑤
	2NO	CW-CNP20⑤
	2NC	CW-CNP02⑤
	1NO	CW-CNP10⑤
	1NC	CW-CNP01⑤
	1NO-1NC	CW-CNP11⑤
	2NO	CW-CNP20⑤
	2NC	CW-CNP02⑤
	1NO	CW-CNP10⑤
	1NC	CW-CNP01⑤
	1NO-1NC	CW-CNP11⑤
	2NO	CW-CNP20⑤
	2NC	CW-CNP02⑤
	1NO	CW-CNP10⑤
	1NC	CW-CNP01⑤
	1NO-1NC	CW-CNP11⑤
	2NO	CW-CNP20⑤
	2NC	CW-CNP02⑤
	1NO	CW-CNP10⑤
	1NC	CW-CNP01⑤
	1NO-1NC	CW-CNP11⑤
	2NO	CW-CNP20⑤
	2NC	CW-CNP02⑤
	1NO	CW-CNP10⑤
	1NC	CW-CNP01⑤
	1NO-1NC	CW-CNP11⑤
	2NO	CW-CNP20⑤
	2NC	CW-CNP02⑤

- Specify a operating voltage code in place of ⑤ in the Part No.

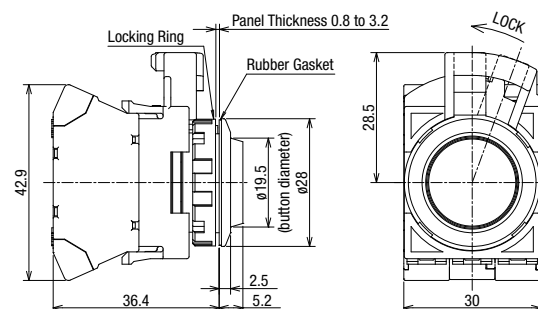| ⑤ Operating voltage code	Operating voltage
Q2	6V AC/DC
Q3	12V AC/DC
Q4	24V AC/DC

Illuminated Pushbuttons (Round Flush / Round Extended)

Dimensions

All dimensions in mm.
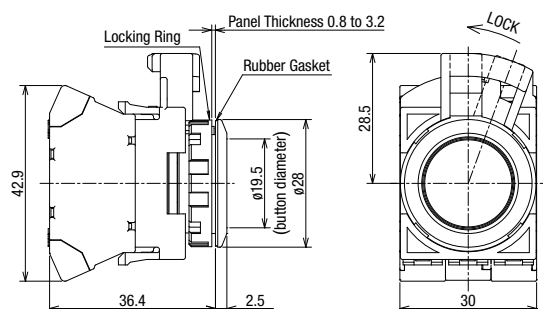
• Round Flush

• Round Extended

• See page 8 for mounting hole layout.

Pilot Lights (Round Flush / Round Extended)

Assembled

Package Quantity: 1

Operator Style	Bezel Color	Rated Operating Voltage	Part No. (Ordering No.)	④ Illumination Color Code
Round Flush black bezel metallic bezel	Black	12V AC/DC	CW1P-1PQ3④	**R** (red) **G** (green) **Y** (yellow) **A** (amber) **S** (blue) **PW** (pure white)
		24V AC/DC	CW1P-1PQ4④	
	Metallic	12V AC/DC	CW4P-1PQ3④	
		24V AC/DC	CW4P-1PQ4④	
Round Extended black bezel metallic bezel	Black	12V AC/DC	CW1P-2PQ3④	**R** (red) **G** (green) **Y** (yellow) **A** (amber) **S** (blue) **PW** (pure white)
		24V AC/DC	CW1P-2PQ4④	
	Metallic	12V AC/DC	CW4P-2PQ3④	
		24V AC/DC	CW4P-2PQ4④	

- Specify a illumination color code in place of ④ in the part no.
- Pilot lights are built-in with an LED unit. For maintenance LED units, see page 29.
- Pilot lights contain 2 dummy blocks.
- Printed film can be inserted. For size details, see page 32.
- For other types, select from sub-assembled units.

Part No. Example

Assembled and sub-assembled unit

Assembled
CW ① P - ② P ③ ④

①Bezel Color
  1: Black
  4: Metallic

②Operator Style
  1: Round Flush
  2: Round Extended

③Rated Operating Voltage
  Q2: 6V AC/DC
  Q3: 12V AC/DC
  Q4: 24V AC/DC

④Illumination Color Code
  (see the table above)

Sub-Assembled Operator unit
CW ① P - ② ④ - PS

①Bezel Color
  1: Black
  4: Metallic

②Operator Style
  1: Round Flush
  2: Round Extended

④Illumination Color Code
  (see the table above)

Sub-Assembled Contact unit
CW - CN P ③

③Rated Operating Voltage
  Q2: 6V AC/DC
  Q3: 12V AC/DC
  Q4: 24V AC/DC

Pilot Lights (Round Flush / Round Extended)
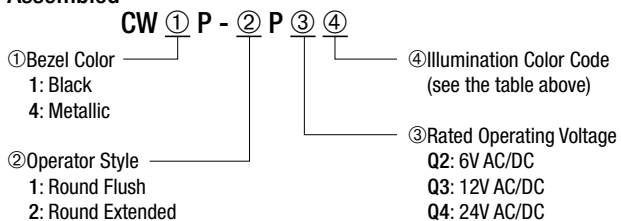
Sub-Assembled

Assembled	=	Operator unit	+	Contact unit for pilot light (LED unit, dummy block, connecting unit)
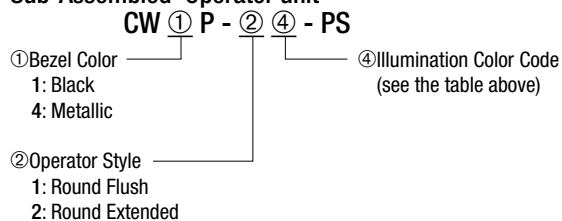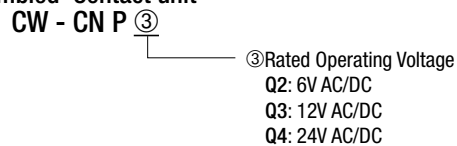
<Reference> Assembled Part No. Example

Name / Shape	Operation	Rated Operating Voltage (AC/DC)	<Reference> Assembled Part No.	④ Illumination Color Code
Round Flush (Black)	Black	6V	CW1P-1PQ2④	R (red) G (green) Y (yellow) A (amber) S (blue) PW (pure white)
		12V	○CW1P-1PQ3④	
		24V	○CW1P-1PQ4④	
(Metallic)	Metallic	6V	CW4P-1PQ2④	
		12V	○CW4P-1PQ3④	
		24V	○CW4P-1PQ4④	
Round Extended (Black)	Black	6V	CW1P-2PQ2④	R (red) G (green) Y (yellow) A (amber) S (blue) PW (pure white)
		12V	○CW1P-2PQ3④	
		24V	○CW1P-2PQ4④	
(Metallic)	Metallic	6V	CW4P-2PQ2④	
		12V	○CW4P-2PQ3④	
		24V	○CW4P-2PQ4④	

<Sub-Assembled> Ordering No. Package Quantity: 1

Operator Unit		Contact Unit for Pilot Light		
Name / Shape	Part No. (Ordering No.)	Shape	Rated Operating Voltage	Part No. (Ordering No.)
Round Flush (Black)	CW1P-1④-PS		6V	CW-CNPQ2
			12V	CW-CNPQ3
			24V	CW-CNPQ4
(Metallic)	CW4P-1④-PS		6V	CW-CNPQ2
			12V	CW-CNPQ3
			24V	CW-CNPQ4
Round Extended (Black)	CW1P-2④-PS		6V	CW-CNPQ2
			12V	CW-CNPQ3
			24V	CW-CNPQ4
(Metallic)	CW4P-2④-PS		6V	CW-CNPQ2
			12V	CW-CNPQ3
			24V	CW-CNPQ4

• Part No. marked with ○ can be purchased as an assembled product.
• Specify a illumination color code in place of ④ in the part no.
• See page 27 for contact details and mounting position.

Dimensions

All dimensions in mm.

• Round Flush

Panel Thickness 0.8 to 3.2
Locking Ring
Rubber Gasket
LOCK
42.9
28.5
ø19.5 (button diameter)
ø28
36.4
2.5
30

• Round Extended

Panel Thickness 0.8 to 3.2
Locking Ring
Rubber Gasket
LOCK
42.9
28.5
ø20.6 (button diameter)
ø28
36.4
4.1
30
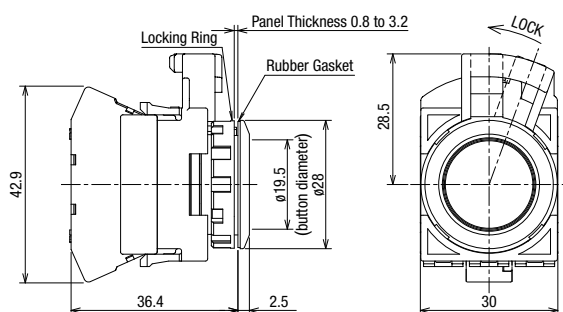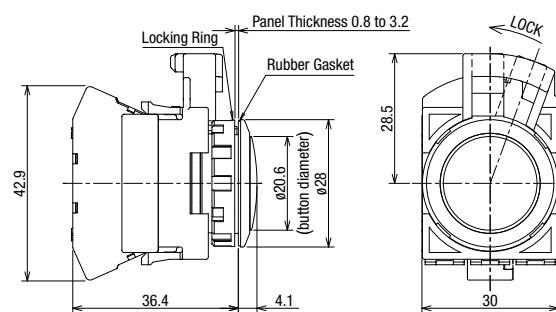
• See page 8 for mounting hole layout.

Contact Unit Part No. / Contact Table: see page 27

Selector Switches (Knobr Operator)

Assembled

Package Quantity: 1

Shape	No. of Positions	Contact Configuration (Code)	Contact Block		Operator Position			① Bezel Color	Maintained 1 ╲╱ 2	╱
			Mounting Position	Contact	1	2				
CW1S Knob Operator 	90° 2-position	1NO (10)	(1)	a		●		1: Black 4: Metallic	CW①S-2P10	—
			(2)	—	Dummy					
			(3)	—	Dummy					
		1NO-1NC (11)	(1)	a		●			CW①S-2P11	—
			(2)	—	Dummy					
			(3)	b	●					
		2NO (20)	(1)	a		●			CW①S-2P20	—
			(2)	—	Dummy					
			(3)	a		●				
	No. of Positions	Contact Configuration (Code)	Contact Block		Operator Position			① Bezel Color	Maintained 1 ↓ 2 0	Spring return two-way 1 ↓ 2 0
			Mounting Position	Contact	1	0	2			
	45° 3-position	2NO (20)	(1)	a	●			1: Black 4: Metallic	CW①S-3P20	CW①S-33P20
			(2)	—	Dummy					
			(3)	a			●			
		2NO-1NC (21)	(1)	a	●				CW①S-3P21	—
			(2)	a	●		●			
			(3)	b	▬▬▬					
		2NO-1NC (21N1)	(1)	a	●				—	CW①S-33P21N1
			(2)	b		●				
			(3)	a			●			

- Specify a bezel color in place of ① in the part no.
- Selector switches with 1 contact block contain 2 dummy blocks. Pushbuttons with 2 contact block contain 1 dummy block.
- Turn the operator to each position accurately.
- For other contact configuration or operation, select from sub-assembled units.

Contact Block Mounting Position

Selector Switches (Knob / Lever Operator)

Sub-Assembled

Assembled	=	Operator unit	+	Contact unit (Contact block, dummy block, connecting unit)

90° 2-position Package Quantity: 1

CW1S Knob Operator	No. of Positions	Contact Configuration (Code)	Mounting Position	Contact	Oper. Pos. 1 (Maintained)	Oper. Pos. 2	Operator position code Maintained <Reference> Assembled Part No.	Name / Shape	Operator position code Maintained Part No. (Ordering No.)	Contact Configuration (Code)	Part No. (Ordering No.)
Knob operator	90° 2-position	1NO (10)	(1)	NO		●	○CW①S-2③P10	Knob operator (Black)	CW①S-2③-PS	1NO (10)	CW-CNP10
			(2)	—	Dummy						
			(3)	—	Dummy						
		1NC (01)	(1)	—	Dummy		CW①S-2③P01			1NC (01)	CW-CNP01
			(2)	—	Dummy						
Lever operator			(3)	NC	●			(Metallic)			
		1NO-1NC (11)	(1)	NO		●	○CW①S-2③P11			1NO-1NC (11)	CW-CNP11
			(2)	—	Dummy						
			(3)	NC	●						
		2NO (20)	(1)	NO		●	○CW①S-2③P20			2NO (20)	CW-CNP20
			(2)	—	Dummy						
			(3)	NO		●		Lever operator (Black)			
		2NC (02)	(1)	NC	●		CW①S-2③P02			2NC (02)	CW-CNP02
			(2)	—	Dummy						
			(3)	NC	●						
		2NO-1NC (21)	(1)	NO		●	CW①S-2③P21			2NO-1NC (21)	CW-CNP21
			(2)	NO		●					
			(3)	NC	●						
		1NO-2NC (12)	(1)	NO		●	CW①S-2③P12	(Metallic)		1NO-2NC (12)	CW-CNP12
			(2)	NC	●						
White indicator on black body			(3)	NC	●						
		3NO (30)	(1)	NO		●	CW①S-2③P30			3NO (30)	CW-CNP30
			(2)	NO		●					
			(3)	NO		●					
		3NC (03)	(1)	NC	●		CW①S-2③P03			3NC (03)	CW-CNP03
			(2)	NC	●						
			(3)	NC	●						

• Specify a bezel color in place of ① in the part no.
• Specify a operator shape in place of ③ in the part no.

• **For Part No. other than maintained position, see Part No. Example on page 20.**
• Part No. marked with ○ can be purchased as an assembled product.
• See page 27 for contact details and mounting position.
• Note: Turn the operator to each position accurately.

①Bezel color code

Code	Color
1	Black
4	Metallic

③Operator shape code

Code	Shape
Blank	Knob
L	Lever

Selector Switches (Knob / Lever Operator)

Sub-Assembled

Assembled	=	Operator unit	+	Contact unit (Contact block, dummy block, connecting unit)

45° 3-position

Package Quantity: 1

CW1S Knob Operator / Lever operator / White indicator on black body

45° 3-position

No. of Positions	Contact Configuration (Code)	Mounting Position	Contact	1	0	2	Maintained / Assembled Part No.	Name / Shape	Part No. (Ordering No.)	Contact Configuration (Code)	Part No. (Ordering No.)
	1NO-1NC (11)	(1)	NO	●			CW①S-3③P11	Knob Operator (Black)	CW①S-3③-PS	1NO-1NC (11)	CW-CNP11
		(2)	—		Dummy						
		(3)	NC		●━●						
	1NO-1NC (11N1)	(1)	NC	━━━			CW①S-3③P11N1			1NO-1NC (11N1)	CW-CNP11N1
		(2)	—		Dummy						
		(3)	NO			●		(Metallic)			
	1NO-1NC (11N2)	(1)	NO	●			CW①S-3③P11N2			1NO-1NC (11N2)	CW-CNP11N2
		(2)	NC		●						
		(3)	—		Dummy						
	1NO-1NC (11N3)	(1)	—		Dummy		CW①S-3③P11N3			1NO-1NC (11N3)	CW-CNP11N3
		(2)	NC		●						
		(3)	NO			●					
	1NO-1NC (11N4)	(1)	—		Dummy		CW①S-3③P11N4	Lever operator (Black)		1NO-1NC (11N4)	CW-CNP11N4
		(2)	NO	●		●					
45° 3-position		(3)	NC	●━●							
	2NO (20)	(1)	NO	●			○CW①S-3③P20			2NO (20)	CW-CNP20
		(2)	—		Dummy						
		(3)	NO			●					
	2NO (20N1)	(1)	—		Dummy		CW①S-3③P20N1	(Metallic)		2NO (20N1)	CW-CNP20N1
		(2)	NO	●		●					
		(3)	NO			●					
	2NC (02)	(1)	NC		●━●		CW①S-3③P02			2NC (02)	CW-CNP02
		(2)	—		Dummy						
		(3)	NC	●━●							
	2NC (02N1)	(1)	—		Dummy		CW①S-3③P02N1			2NC (02N1)	CW-CNP02N1
		(2)	NC		●						
		(3)	NC	●━●							
	2NO-1NC (21)	(1)	NO	●			○CW①S-3③P21			2NO-1NC (21)	CW-CNP21
		(2)	NO	●		●					
		(3)	NC	●━●							
	1NO-2NC (12)	(1)	NO	●			CW①S-3③P12			1NO-2NC (12)	CW-CNP12
		(2)	NC		●						
		(3)	NC	●━●							
	3NO (30)	(1)	NO	●			CW①S-3③P30			3NO (30)	CW-CNP30
		(2)	NO	●		●					
		(3)	NO			●					
	3NC (03)	(1)	NC		●━●		CW①S-3③P03			3NC (03)	CW-CNP03
		(2)	NC		●						
		(3)	NC	●━●							

- Specify a bezel color in place of ① in the part no.
- Specify a operator shape in place of ③ in the part no.

- **For Part No. other than maintained position, see Part No. Example on page 20.**
- Part No. marked with ○ can be purchased as an assembled product.
- See page 27 for contact details and mounting position.
- Note: Turn the operator to each position accurately.

①Bezel color code

Code	Color
1	Black
4	Metallic

③Operator shape code

Code	Shape
Blank	Knob
L	Lever

Contact Unit Part No. / Contact Table: see page 27

Selector Switches (Knob / Lever Operator)

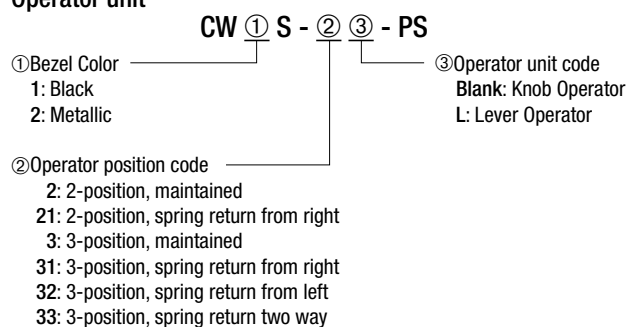### Part Number Development
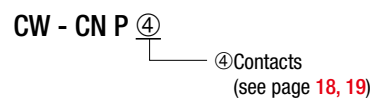
Assembled and sub-assembled unit

Assembled

CW ① S - ② ③ P ④

①Bezel Color
  1: Black
  2: Metallic

②Operator position code
  2: 2-position, maintained
  3: 3-position, maintained
  33: 3-position, spring return two way

③Operator unit code
  Blank: Knob Operator
  L: Lever Operator

④Contacts
  (see page 18, 19)

Operator unit

CW ① S - ② ③ - PS

①Bezel Color
  1: Black
  2: Metallic

②Operator position code
  2: 2-position, maintained
  21: 2-position, spring return from right
  3: 3-position, maintained
  31: 3-position, spring return from right
  32: 3-position, spring return from left
  33: 3-position, spring return two way

③Operator unit code
  Blank: Knob Operator
  L: Lever Operator

Contact unit

CW - CN P ④

④Contacts
  (see page 18, 19)

②Operator position code

(90° 2-position)	
2 Maintained	**21** Spring Return (Spring Return from Right)
1 2	1 2

(45° 3-position)	
3 Maintained	**31** Spring Return (Spring Return from Right)
1 0 2	1 0 2
32 Spring Return (Spring return from left)	**33** Spring Return (Spring return two-way)
1 0 2	1 0 2

Dimensions

All dimensions in mm.

• Knob Operator

Locking Ring · Panel Thickness 0.8 to 3.2 · Rubber Gasket · Operator Angle · 45° 45° · LOCK · 42.9 · ø28 · 28.5 · 36.4 · 13.1 · 2.5 · 30
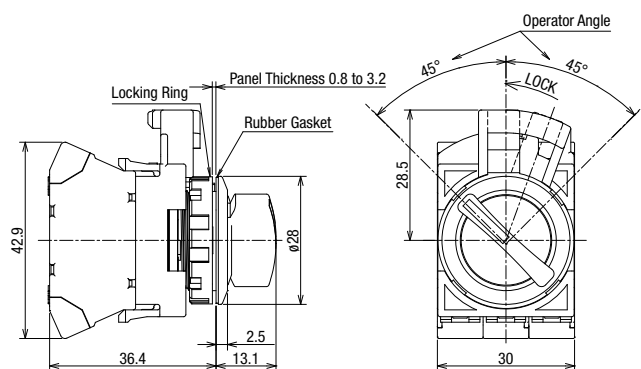
• See page 8 for mounting hole layout.

• Lever Operator

Locking Ring · Panel Thickness 0.8 to 3.2 · Rubber Gasket · Operator Angle · 45° 45° · LOCK · 42.9 · ø28 · 28.5 · 36.4 · 17.1 · 2.5 · 30
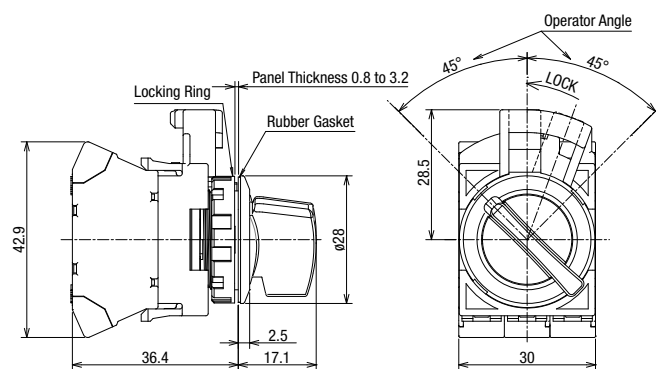
Key Selector Switches

Assembled

Package Quantity: 1

Shape	No. of Positions	Contact Configuration (Code)	Contact Block		Operator Position			① Bezel Color	Maintained 1 ⌄ 2
			Mounting Position	Contact	1	2			
CW1K Black Metallic	90° 2-position	1NO (10)	(1)	NO		●		1: Black 4: Metallic	CW①K-2AP10
			(2)	—	Dummy				
			(3)	—	Dummy				
		1NO1NC (11)	(1)	NO		●			CW①K-2③P11
			(2)	—	Dummy				
			(3)	NC	●				
		2NO (20)	(1)	NO		●			CW①K-2③P20
			(2)	—	Dummy				
			(3)	NO		●			
		2NO1NC (21)	(1)	NO		●			CW①K-2③P21
			(2)	NO		●			
			(3)	NC	●				

	No. of Positions	Contact Configuration (Code)	ContactBlock		Operator Position			① Bezel Color	Maintained 1 0 2
			Mounting Position	Contact	1	0	2		
	45° 3-position	2NO-1NC (21)	(1)	NO	●			1: Black 4: Metallic	CW①K-3③P21
			(2)	NO	●		●		
			(3)	NC	▬▬				

- For contact block mounting position, see the figure on the right.
- Two keys are supplied. Key cylinder material: Metal
- Selector switches with 1 contact block contain 2 dummy blocks. Pushbuttons with 2 contact block contain 1 dummy block.
- Specify a bezel color in place of ① in the part no.
- Specify a key removal position in place of ③ in the part no.

- 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 page 24 for details.
- Besides the standard key (key number 0H), six other keys are also available. See page 24 for details.

③ Key removal position

90° 2-position

Key Retained Position (Cam code: blank)	
A: Key removable in all positions 1 ⌄ 2	B: Key removable at left ① ⌄ ❷

①② : Key removal position   ❶❷ : Key retained position

45° 3-position

Key Retained Position		
A: Key removable in all positions ① 0 ②	B: Key removable at left / center ① 0 ❷	H: Key removable at left ① 0 ❷

⓪①② : Key removal position   ❶❶❷ : Key retained position

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

Contact Block Mounting Position

(1) (2) (3)

Key Selector Switches

Sub-Assembled

Assembled	=	Operator unit	+	Contact unit (Contact block, dummy block, connecting unit)

90° 2-position   Package Quantity: 1

No. of Positions	Contact Configuration (Code)	Contact Block		Operator Position			① Bezel Color	Operator position code	Name / Shape	Operator position code	Contact Configuration (Code)	Part No. (Ordering No.)
		Mounting Position	Contact	1	2			Maintained 1 2 <Reference> Assembled Part No.		Maintained 1 2 Part No. (Ordering No.)		
90° 2-position	1NO (10)	(1)	NO		●		1: Black 4: Metallic	○CW①K-2③P10	Black Metallic	CW①K-2③⑤-PS	1NO (10)	CW-CNP10
		(2)	—	Dummy								
		(3)	—	Dummy								
	1NC (01)	(1)	—	Dummy				CW①K-2③P01			1NC (01)	CW-CNP01
		(2)	—	Dummy								
		(3)	NC	●								
	1NO-1NC (11)	(1)	NO		●			○CW①K-2③P11			1NO-1NC (11)	CW-CNP11
		(2)	—	Dummy								
		(3)	NC	●								
	2NO (20)	(1)	NO		●			○CW①K-2③P20			2NO (20)	CW-CNP20
		(2)	—	Dummy								
		(3)	NO		●							
	2NC (02)	(1)	NC	●				CW①K-2③P02			2NC (02)	CW-CNP02
		(2)	—	Dummy								
		(3)	NC	●								
	2NO1NC (21)	(1)	NO		●			○CW①K-2③P21			2NO1NC (21)	CW-CNP21
		(2)	NO		●							
		(3)	NC	●								
	1NO-2NC (12)	(1)	NO		●			CW①K-2③P12			1NO-2NC (12)	CW-CNP12
		(2)	NC	●								
		(3)	NC	●								
	3NO (30)	(1)	NO		●			CW①K-2③P30			3NO (30)	CW-CNP30
		(2)	NO		●							
		(3)	NO		●							
	3NC (03)	(1)	NC	●				CW①K-2③P03			3NC (03)	CW-CNP03
		(2)	NC	●								
		(3)	NC	●								

- Two keys are supplied. Key cylinder material: Metal
- For part no. other than maintained position, see Part No. Example on page 24.
- Part no. marked with ○ can be purchased as an assembled product.
- Specify a bezel color in place of ① in the part no.
- Specify a desired key removal position in place of ③ in the part no.
- Specify a key number in place of ⑤ in the part no.

- 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 page 24 for details.

- See page 24 Part No. Example for details.

Contact Unit Part No. / Contact Table: see page 27

IDEC

Key Selector Switches

Sub-Assembled

Assembled	=	Operator unit	+	Contact unit (Contact block, dummy block, connecting unit)

45° 3-position

Package Quantity: 1

No. of Positions	Contact Configuration (Code)	Contact Block Mounting Position	Contact	Operator Position 1	Operator Position 0	Operator Position 2	① Bezel Color	Operator position code Maintained / <Reference> Assembled Part No.	Name / Shape	Operator position code Maintained / Part No. (Ordering No.)	Contact Configuration (Code)	Part No. (Ordering No.)
45° 3-position	1NO-1NC (11)	(1)	NO	●				CW①K-3③P11	Black		1a-1b (11)	CW-CNP11
		(2)	—		Dummy							
		(3)	NC		●●							
	1NO-1NC (11N1)	(1)	NC		●●			CW①K-3③P11N1			1a-1b (11N1)	CW-CNP11N1
		(2)	—		Dummy							
		(3)	NO			●						
	1NO-1NC (11N2)	(1)	NO	●				CW①K-3③P11N2	Metallic		1a-1b (11N2)	CW-CNP11N2
		(2)	NC		●							
		(3)	—		Dummy							
	1NO-1NC (11N3)	(1)	—		Dummy			CW①K-3③P11N3			1a-1b (11N3)	CW-CNP11N3
		(2)	NC		●							
		(3)	NO			●						
	1NO-1NC (11N4)	(1)	—		Dummy			CW①K-3③P11N4			1a-1b (11N4)	CW-CNP11N4
		(2)	NO	●		●						
		(3)	NC		●●							
	2NO (20)	(1)	NO	●				CW①K-3③P20			2a (20)	CW-CNP20
		(2)	—		Dummy							
		(3)	NO			●						
	2NO (20N1)	(1)	—		Dummy			CW①K-3③P20N1			2a (20N1)	CW-CNP20N1
		(2)	NO	●		●						
		(3)	NO			●						
	2NC (02)	(1)	NC		●●		1: Black 4: Metallic	CW①K-3③P02			2b (02)	CW-CNP02
		(2)	—		Dummy							
		(3)	NC		●●							
	2NC (02N1)	(1)	—		Dummy			CW①K-3③P02N1			2b (02N1)	CW-CNP02N1
		(2)	NC		●							
		(3)	NC		●●							
	2NO-1NC (21)	(1)	NO	●				○CW①K-3③P21		CW①K-3③⑤-PS	2a-1b (21)	CW-CNP21
		(2)	NO	●		●						
		(3)	NC		●●							
	2NO-1NC (21N1)	(1)	NO	●				CW①K-3③P21N1			2a-1b (21N1)	CW-CNP21N1
		(2)	NC		●							
		(3)	NO			●						
	1NO-2NC (12)	(1)	NO	●				CW①K-3③P12			1a-2b (12)	CW-CNP12
		(2)	NC		●							
		(3)	NC		●●							
	1NO-2NC (12N1)	(1)	NC		●●			CW①K-3③P12N1			1a-2b (12N1)	CW-CNP12N1
		(2)	NO	●		●						
		(3)	NC		●●							
	3NO (30)	(1)	NO	●				CW①K-3③P30			3a (30)	CW-CNP30
		(2)	NO	●		●						
		(3)	NO			●						
	3NC (03)	(1)	NC		●●			CW①K-3③P03			3b (03)	CW-CNP03
		(2)	NC		●							
		(3)	NC		●●							

- Two keys are supplied. Key cylinder material: Metal
- **For part no. other than maintained position, see Part No. Example on page 24.**
- Part no. marked with ○ can be purchased as an assembled product.
- Specify a bezel color in place of ① in the part no.
- Specify a desired key removal position in place of ③ in the part no. ⎫ • See page 24 Part No.
- Specify a key number in place of ⑤ in the part no. ⎭ Example for details.

- 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 page 24 for details.

Contact Unit Part No. / Contact Table: see page 27

Key Selector Switches

Part No. Example

Assembled and sub-assembled unit

Assembled Part No. Example

CW ① K - ② ③ P ④ - ⑤

①Bezel Color
   1: Black
   2: Metallic

②Operator position code
   2: 2-position, maintained
   3: 3-position, maintained

⑤Key Number
   Blank: Standard key (0H)
   1H to 2H: Reversible key
   3H to 6H: Non-reversible key

④Contacts (see page **22, 23**)

③Key Removal Position

(90° 2-position)			Spring return from right
A: Key removable in all positions ① ②	**B**: Key removable at left ① ❷	**C**: Key removable at right ❶ ②	1 ➔ 2

• Operator Position: ⓪①②: Key removal position
   ❶❷: Key retained position

• The key cannot be removed at the return position.

(45° 3-position)				Spring return from right	Spring return from left	Spring return two-way
A: Key removable in all positions ① ⓪ ②	**B**: Key removable at left / center ① ⓪ ❷	**C**: Key removable at center / right ❶ ⓪ ②	**D**: Key removable at center ❶ ⓪ ❷	1 ⓪ 2	1 ⓪ 2	1 ⓪ 2
E: Key removable at right / left ① ⓪ ②	**G**: Key removable at left ① ⓪ ❷	**H**: Key removable at right ❶ ⓪ ②				

• The key cannot be removed at the return position.

• Operator Position: ⓪①②: Key removal position
   ❶❷: Key retained position

Operator unit Part No. Development

CW ① K - ② ③ ⑤ - PS

①Bezel Color
   1: Black
   2: Metallic

②Operator position code:
   2: 2-position, maintained
  21: 2-position, spring return from right
   3: 3-position, maintained
  31: 3-position, spring return from right
  32: 3-position, spring return from left
  33: 3-position, spring return two way

⑤Key Number
   Blank: Standard key (0H)
   1H to 2H: Reversible key
   3H to 6H: Non-reversible key

③Key Removal Position

(90° 2-position)			Spring return from right
A: Key removable in all positions ① ②	**B**: Key removable at left ① ❷	**C**: Key removable at right ❶ ②	1 ➔ 2

• Operator Position: ⓪①②: Key removal position
   ❶❷: Key retained position

• The key cannot be removed at the return position.

(45° 3-position)				Spring return from right	Spring return from left	Spring return two-way
A: Key removable in all positions ① ⓪ ②	**B**: Key removable at left / center ① ⓪ ❷	**C**: Key removable at center / right ❶ ⓪ ②	**D**: Key removable at center ❶ ⓪ ❷	1 ⓪ 2	1 ⓪ 2	1 ⓪ 2
E: Key removable at right / left ① ⓪ ②	**G**: Key removable at left ① ⓪ ❷	**H**: Key removable at right ❶ ⓪ ②				

• The key cannot be removed at the return position.

• Operator Position: ⓪①②: Key removal position
   ❶❷: Key retained position

Contact unit

CW - CN P ④

④Contacts (see page **22, 23**)

IDEC

Key Selector Switches

Dimensions

All dimensions in mm.

Key Removal Position 2-position
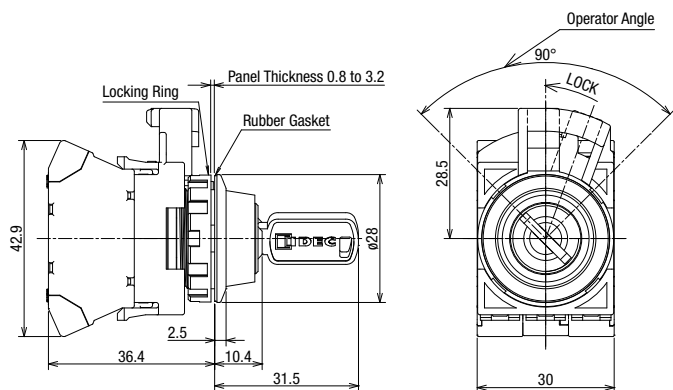
Key Removal Position 3-position

Key

• Reversible key

Logo Stamping

Key No.

Key No. Stamping

• Non-reversible key

Logo Stamping

Key No.

Key No. Stamping
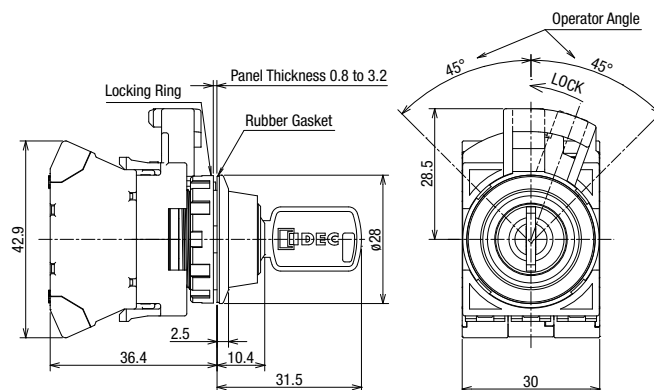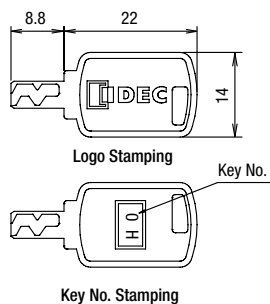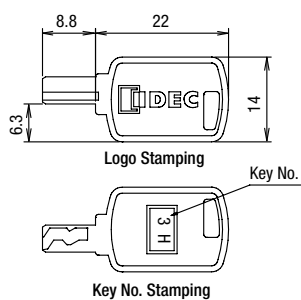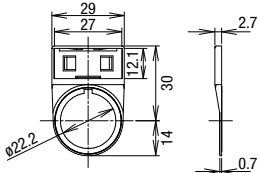
• See page 8 for mounting hole layout.

Nameplates

All dimensions in mm
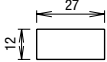
When ordering, specify the Ordering No.

Description		Material	Ordering No.	Package Quantity	Dimensions (mm)
	Legend				
CWAM	Order marking plate (HWNP) separately.	Plastic (black)	CWAM	1	• Marking plate HWNP is necessary. • Degree of protection: IP65 • Do not remove the gasket on the operator.

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

Making Plate

When ordering, specify the Ordering No.

Description	Material	Part No.	Ordering No.	Package Quantity	Dimensions (mm)
HWNP Image: HWNP-35	Aluminum (black)	HWNP-□	HWNP-□	1	• White legend on black background. • Engraving area: W25, H7 Thickness: 1.0 mm
			HWNP-□PN10	10	

• Specify a legend code in place of □ in the Ordering No.

Legends
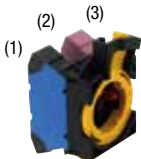
Code	Legend
0	(blank)
1	ON
2	OFF
3	START

Code	Legend
4	STOP
31	OFF-ON
35	HAND-AUTO
53	HAND-OFF-AUTO

Sub-Assembled
All dimensions in mm

Contact Unit Part No. / Contact Table
Package Quantity: 1
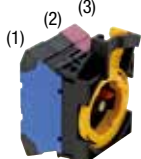
Contact Configuration (Code)	Part No. (Ordering No.)	Mounting Position	Contact
1NO (10)	CW-CNP10	(1)	1NO
		(2)	Dummy
		(3)	Dummy
1NC (01)	CW-CNP01	(1)	Dummy
		(2)	Dummy
		(3)	1NC
1NO1NC (11)	CW-CNP11	(1)	1NO
		(2)	Dummy
		(3)	1NC
1NO1NC (11N1)	CW-CNP11N1	(1)	1NC
		(2)	Dummy
		(3)	1NO
1NO1NC (11N2)	CW-CNP11N2	(1)	1NO
		(2)	1NC
		(3)	Dummy
1NO1NC (11N3)	CW-CNP11N3	(1)	Dummy
		(2)	1NC
		(3)	1NO
1NO1NC (11N4)	CW-CNP11N4	(1)	Dummy
		(2)	1NO
		(3)	1NC
2NO (20)	CW-CNP20	(1)	1NO
		(2)	Dummy
		(3)	1NO
2NO (20N1)	CW-CNP20N1	(1)	Dummy
		(2)	1NO
		(3)	1NO
2NC (02)	CW-CNP02	(1)	1NC
		(2)	Dummy
		(3)	1NC
2NC (02N1)	CW-CNP02N1	(1)	Dummy
		(2)	1NC
		(3)	1NC
2NO1NC (21)	CW-CNP21	(1)	1NO
		(2)	1NC
		(3)	1NC
2NO1NC (21N1)	CW-CNP21N1	(1)	1NO
		(2)	1NC
		(3)	1NO
1NO2NC (12)	CW-CNP12	(1)	1NO
		(2)	1NC
		(3)	1NC
1NO2NC (12N1)	CW-CNP12N1	(1)	1NC
		(2)	1NO
		(3)	1NC
3NO (30)	CW-CNP30	(1)	1NO
		(2)	1NO
		(3)	1NO
3NC (03)	CW-CNP03	(1)	1NC
		(2)	1NC
		(3)	1NC

• Contact unit includes a contact block, dummy block, and connecting unit.

Illuminated Contact Unit Part No. / Contact Table
Package Quantity: 1

Contact Configuration (Code)	Rated Operating Voltage	Part No. (Ordering No.)	Mounting Position	Contact
1NO (10)	6V AC/DC	CW-CNP10Q2	(1)	1NO
	12V AC/DC	CW-CNP10Q3	(2)	LED module
	24V AC/DC	CW-CNP10Q4	(3)	Dummy
1NC (01)	6V AC/DC	CW-CNP01Q2	(1)	Dummy
	12V AC/DC	CW-CNP01Q3	(2)	LED module
	24V AC/DC	CW-CNP01Q4	(3)	1NC
1NO1NC (11)	6V AC/DC	CW-CNP11Q2	(1)	1NO
	12V AC/DC	CW-CNP11Q3	(2)	LED module
	24V AC/DC	CW-CNP11Q4	(3)	1NC
2NO (20)	6V AC/DC	CW-CNP20Q2	(1)	1NO
	12V AC/DC	CW-CNP20Q3	(2)	LED module
	24V AC/DC	CW-CNP20Q4	(3)	1NO
2NC (02)	6V AC/DC	CW-CNP02Q2	(1)	1NC
	12V AC/DC	CW-CNP02Q3	(2)	LED module
	24V AC/DC	CW-CNP02Q4	(3)	1NC

• Illuminated contact unit includes a contact block, LED module, dummy block, and connecting unit.

Contact Unit for Pilot Light Part No.
Package Quantity: 1
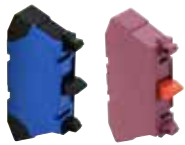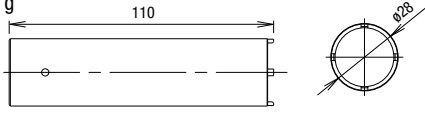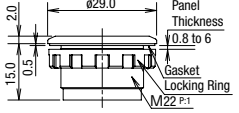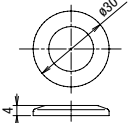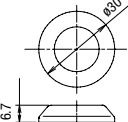
Rated Operating Voltage (Code)	Part No. (Ordering No.)	Mounting Position	Contact
6V (Q2)	CW-CNPQ2	(1)	Dummy
12V (Q3)	CW-CNPQ3	(2)	LED module
24V (Q4)	CW-CNPQ4	(3)	Dummy

• Contact unit for pilot light includes one LED module, two dummy blocks, and one connecting unit.
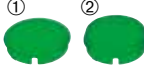
Note: Select the contact configuration from <Reference> Assembled Part No.

Accessories

All dimensions in mm

Shape	Material	Part No.	Part No. (Ordering No.)	Package Quantity	Remarks
Contact Block	NO contact Housing color: blue	HW-P10R	HW-P10R	5	Note: Selector switches with 1 contact block require 2 dummy blocks. Pushbuttons with 2 contact blocks require 1 dummy block.
	NC contact Housing color: reddish purple	HW-P01	HW-P01	5	
Connecting Unit		CW-CN	CW-CN	1	Connecting unit for Push-in terminal
Dummy Block	Polyamide (black)	CW-DB	CW-DBPN05	5	
Locking Ring Wrench	Metal (Brass)	MW9Z-T1	MW9Z-T1	1	• Used to tighten the locking ring when installing the CW series control unit in a panel cut-out. • Weight: Approx 150 g
Mounting Hole Plug	Polyamide (black)	LW9Z-BP1	LW9Z-BP1	1	• Used to plug an unnecessary ø22.3 mm hole in the panel. • Degree of protection: IP65 • Panel thickness: 0.8 to 6.0 mm
Rubber Boot ①	① For round flush	CW9Z-D11	CW9Z-D11	1	• Degree of protection: IP66/67 UL Type 4X • Panel thickness: 0.8 to 3.2 mm • Use with round extended illuminated pushbuttons/pushbuttons.
②	② For round extended	CW9Z-D12	CW9Z-D12	1	• Degree of protection: IP66/67 UL Type 4X • Panel thickness: 0.8 to 3.2 mm • Use with round extended illuminated pushbuttons/pushbuttons.

Material for Rubber Boot: Rubber (Transparent silicon rubber)

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

Name / Shape		Material	Part No.	Ordering No.	Package Quantity	Remarks
Button ① ②	① Round flush	Polyarylate ø19.5 H3.5	CW9Z-B11∗	CW9Z-B11∗-KPN05	5	• For maintained pushbuttons. • Specify a button color code in place of ∗ in the Part No. B (black), G (green), R (red), Y (yellow), S (blue), W (white)
	② Round extended	Polyarylate ø19.5 H6.2	CW9Z-B12∗	CW9Z-B12∗-KPN05	5	
Lens ① ②	① Round flush	Polyarylate ø19.5 H3.5	CW9Z-L11∗	CW9Z-L11∗-KPN05	5	• For illuminated pushbuttons. • Specify a button color code in place of ∗ in the Part No. R (red), G (green), Y (yellow), A (amber), C (clear), S (blue), PW (pure white)
	② Round extended	Polyarylate ø19.5 H6.2	CW9Z-L12∗	CW9Z-L12∗-KPN05	5	
Locking Ring		Polyamide (black)	CW9Z-LN	CW9Z-LNPN05	5	—
Gasket		Nitrile rubber	CW9Z-WM	CW9Z-WMPN10	10	Waterproof gasket between CW control unit bezel and the mounting panel. (Dimensions in mm) ø21.6 ±0.15 ø28.0 ±0.15 Thickness: 0.5
Spare Key Reversible Non-reversible		Zinc (nickel-plated)	LA9Z-SK-0H	LA9Z-SK-0HPN02	2	Specify a key No. in place of □. 0H: Standard key (reversible) 1H to 2H: Reversible key 3H to 6H: Non-reversible key • For dimensions, see page 25.
			LA9Z-SK-□	LA9Z-SK-□PN02		

CW Series LED Module

Shape	Rated Operating Voltage	Current Draw		Part No. (Ordering No.)	Package Quantity
		AC	DC		
	6V AC/DC	16 mA	12 mA	CW-PAQ2	
	12V AC/DC	7 mA	6 mA	CW-PAQ3	1
	24V AC/DC	6 mA	6 mA	CW-PAQ4	

⚠ Safety Precautions

- Turn off the power to the CW series switches & pilot lights before starting installation, removal, wiring, maintenance, and inspection of the products. Failure to turn power off may cause electrical shocks or fire hazard.
- For wiring, use wires of a proper size to meet the voltage and current requirements. and the number of connectable wires (page 34). Failure to tighten the terminal screws may cause overheating and fire.

- Avoid using in places mentioned below to maintain performance of the product.
  -Exposed to direct sunlight
  -Subject to corrosive or flammable gases

Instructions

Notes for Operation

- When using the CW series control units in a safety-related 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.

Installing the Contact Unit

1. Remove the contact block from the operator.
2. Remove the locking ring from the operator.
3. With the TOP marking of the operator facing upwards, align the anti-rotation projection on the operator with the recess in the mounting hole, insert the operator into the mounting hole.
   When installing the nameplate, insert between the operator and the panel.
4. Tighten the locking ring from the rear of the panel.

Pushbuttons and Illuminated Pushbuttons

Anti-rotation projection
Recess in mounting hole
Panel
TOP marking
Gasket
Locking Ring
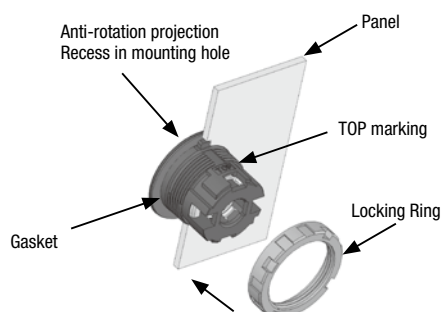
Selector and Key Selector Switches
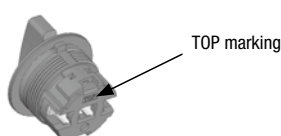
TOP marking

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.

2. Turn left
1. Push
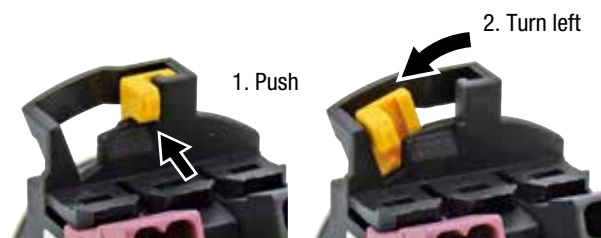
Notes for Panel Mounting

Locking ring wrench recommended torque
Tighten the bezel to a tightening torque of 1.2 N·m

Locking ring wrench

Locking ring wrench (MW9Z-T1) can be used to tighten the bezel. Do not use pliers. Excessive tightening will damage the locking ring.

Locking ring wrench (MW9Z-T1)

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.

   Also, make sure not to damages other parts of the operator.

Instructions

Removing and Installing Contact Blocks, Dummy Blocks and LED Unit

Removing

To remove the contact block, dummy block, and LED unit from the operator, insert a flat screwdriver under the latch and push down the screwdriver as shown below.
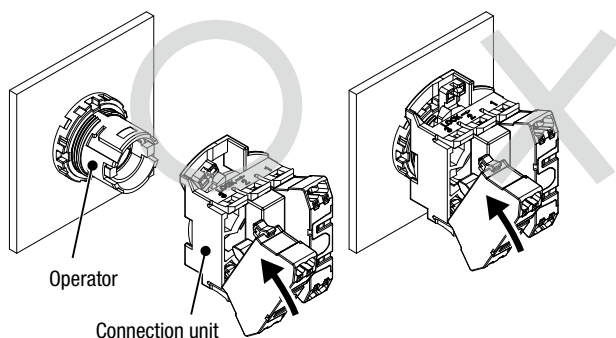

Installing

When installing the contact block or dummy block, make sure that it snaps on to the operator.

Note 1) Make sure to attach a correctly assembled connection unit to the operator.

Note 2) When attaching the contact block to the connection unit, make sure that the connection is detached from the operator.
If a contact block is installed with the operator attached to the connection unit, malfunction of the switch may occur.

Operator

Connection unit

Test Point

Note 1) Do not insert wires to the test points.

Note 2) When conducting a continuity test on the contact block, make sure that probes (ø2.0 maximum) of the tester are inserted vertically to the panel.

Test point
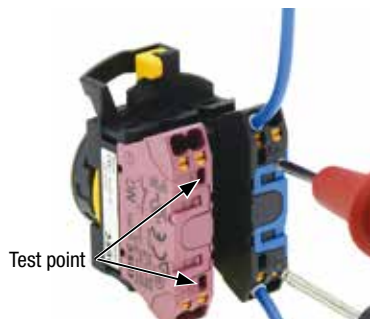
Removing and Installing Lens and Buttons

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

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.

Note) Insert the flat screwdriver by about an angle of 30° 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

Top Marking   Top Marking

Screwdriver Insertion Angle

Approx. 30°

Panel Surface
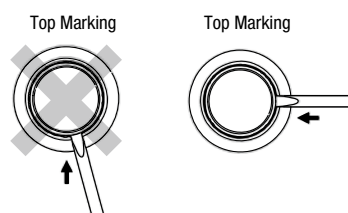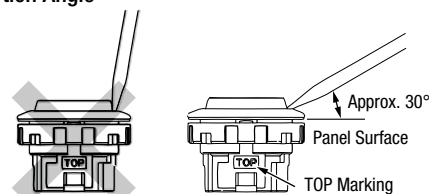
TOP Marking

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.

TOP Marking

Ridge

Groove in the Lens
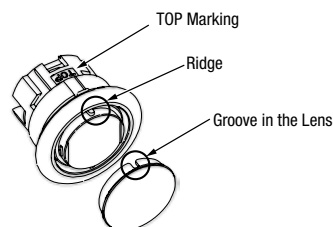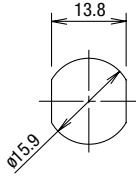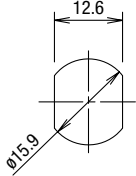
Instructions

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   All dimensions in mm.

Illuminated Pushbutton (Round Flush)	Illuminated Pushbutton (Round Extended)
13.8 ø15.9	12.6 ø15.9

Thickness: 0.2 mm maximum
Film material:
Note: Film is not supplied and must be prepared by the user.

Nameplate / Marking Plate

Installing the marking plate on a nameplate

Insert a marking plate tin the direction of the arrow ①, and press in as shown ②.

Nameplate ②
Marking Plate
①
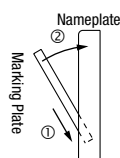
Removing a Marking Plate

Insert a flat screwdriver into the upper middle part of the marking plate and remove. When anti-rotation is not required, remove the projection from the nameplate using pliers.

Flat Blade Screwdriver
Marking Plate
Nameplate
Nameplate
Marking Plate
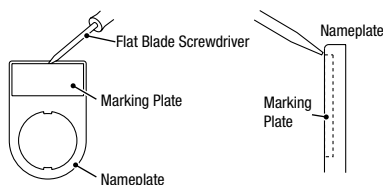
Note: When using a nameplate, the mounting panel thickness is 2.6 mm maximum.

Panel Thickness 0.8 to 2.6
3.2
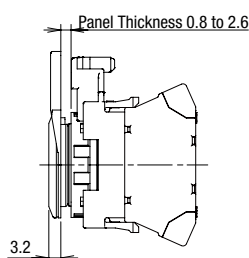
Installing the Rubber Boot

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.

1. Remove the gasket from the operator, and mount the rubber boot to cover the bezel as shown in the below diagram (Do not use a washer).
2. Fit the rubber boot to the bezel of the operator as shown in the diagram of the completed operator below.

Notes

- Attach the rubber boot by making sure that the front round part (A) of the rubber boot is concentric with the lens and button. Otherwise the appearance may look different.
- Make sure that the rubber boot is properly fitted, otherwise, the waterproof and dustproof characteristics are not ensured.

(2) Mount rubber boot
Part (A)
(1) Remove gasket (do not use)
Rubber boot
Bezel
Completed operator
Gasket
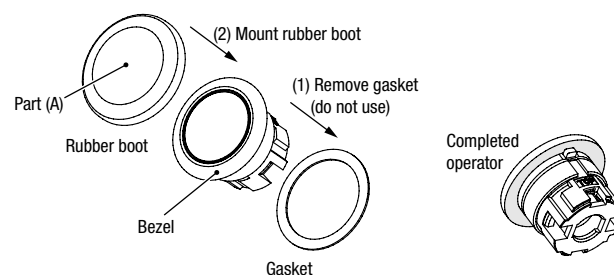
Note: Install the rubber boot before mounting the unit to the panel.

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 (0H), six other keys are available. Use a key with a key that matches with the number on the key cylinder. However, for standard keys, the key number is engraved on the key but not on the key cylinder.
- Keys are available in two shapes. Key numbers 0H (standard), 1H, and 2H are reversible keys. Key numbers 3H, 4H, 5H, and 6H are non-reversible keys. Make sure of correct insertion direction.

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 securely to each position.

IDEC

Instructions
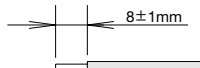
Applicable Wire

When wiring, use the applicable wires shown below.

Applicable Wire and Specifications

Applicable Wire (*1)	0.25 to 1.5mm² (AWG16 to 24)
Wire Strip Length (*2)	8 ± 1mm (*3)
Ferrule Size (*3) (Weidmüller)	H0.25 to H1.5 (without insulated cover)
	H0.25 to H1.5 (with insulated cover)

*1) For applicable wires confirmed by IDEC, see website.
*2) For details on ferrules, see "Wire Size and Recommended Ferrules" table below.
*3) Strip the sheath of the wire 8±1mm from the end.

Note: Make sure that the stranded wires do not loosen when using wiring without ferrules.

Wire Size and Recommended Ferrules

Ferrules without insulated covers

Applicable Wire (Stranded Wire)		Wire Strip Length	Weidmüller Recommended Part No.
AWG	mm²		
24	0.25	5 to 6mm	H0.25/5
20	0.50	10 to 11mm	H0.5/10
18	0.75	10 to 11mm	H0.75/10
18	1.00	10 to 11mm	H1.0/10
16	1.50	10 to 11mm	H1.5/10

Ferrules with insulated covers

Applicable Wire (Stranded Wire)		Wire Strip Length	Weidmüller Recommended Part No
AWG	mm²		
24	0.25	5 to 6mm	H0.25/5
20	0.50	10 to 11mm	H0.5/10
18	0.75	10 to 11mm	H0.75/10
18	1.00	10 to 11mm	H1.0/10
16	1.50	10 to 11mm	H1.5/10

Recommended Tools (Optional)

Name	Weidmüller Recommended Part No.
Crimping tool	PZ 6 Roto L
Flat blade screwdriver	SDS 0.4×2.0×60
	SDS 0.4×2.5×75

Note 1) Note the crimping dimensions When using tools other than the recommended crimping tool. For details, see page 34.
Note 2) Use a flat blade screwdriver with a blade size of 0.4×2.5 mm.
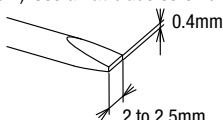
• For details on crimping tools, see page 29.

Wiring Procedure

Connecting the wire

1) Stranded wires with ferrules or solid wire
① Insert the wire to the back of the wire port.
② After wiring, tug lightly to make sure that the wire is properly connected.
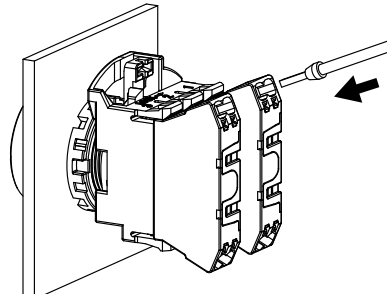

2) Stranded wire
① While pressing the pusher using a flat blade screwdriver (recommended optional screwdriver: SDS 0.4×2.0×60 or SDS 0.4×2.5×75), insert the wire fully in the wiring port. Wire is connected when the pusher is released.
② After wiring, tug lightly to make sure that the wire is properly connected.

Flat blade screwdriver

Pusher
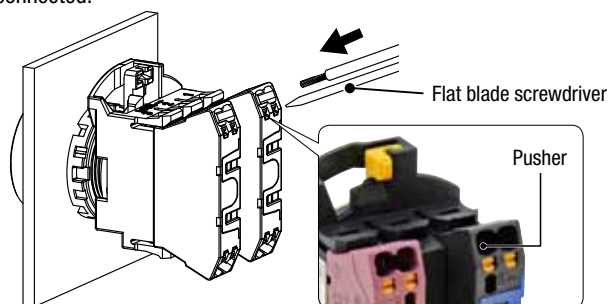
Instructions

Crimping of Ferrules and Wiring
• Choose an appropriate ferrule for the wire.
• Cut the wire carefully to get a flat end.
• Make sure that ferrule sleeve is completely filled by the conductor. Depending on the cross section, the conductor should protrude approx. 0 to 1 mm from the ferrule sleeve.

0 to1mm
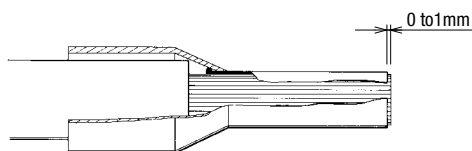
• When crimping, refer to the instructions of the crimping tool.

Faults which can occur during crimping:
• Cracks along the sides and die impressions
• Splitting of the ferrules
• Asymmetrical crimping shape
• Extreme burrs formed along the sides
• Ferrule not filled by conductor
• Single conductors pushed back by protruding from the insulated cover
• Single conductors squeezed off
• Insulated cover damaged by the crimping jaw
• Conductor insulation not pushed into the insulated cover
• Ferrule bent longitudinally after crimping
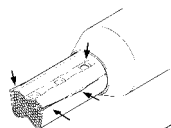
Formation of cracks at the sides. Sides spilt open
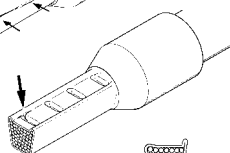
Formation of cracks at the impressions of the crimping jaw

Asymmetrical crimping shape. Burr formation on one side

Asymmetrical crimping shape. Burr formation on one side
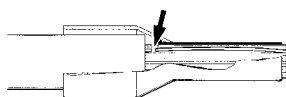
Single conductor squeezed off
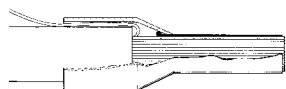
Single conductor pushed back

Crimping dimensions: W2.4×H1.9 mm
Maximum connectable crimping size is W2.4×H1.9. Make sure that the ferrule size will be smaller than this dimension. (Recommended crimping tool: PZ 6 Roto (optional) Weidmüller

Max. 1.9mm

Max. 2.4mm
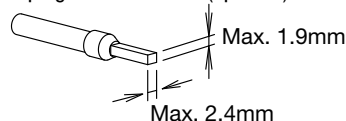
Note 1) If a tool other than the recommended crimping tool is used, the ferrule may not be crimped to the appropriate size and the clamp or spring inside the contact block may be deformed and may not operate normally.
Note 2) Pin crimp terminals cannot be used.

Removing the Wire
When removing the wire, push the pusher using a flat blade screwdriver (recommended optional screwdriver: SDS 0.4×2.0×60, see page) and pull wire out in the direction of the arrow.

Flat blade screwdriver
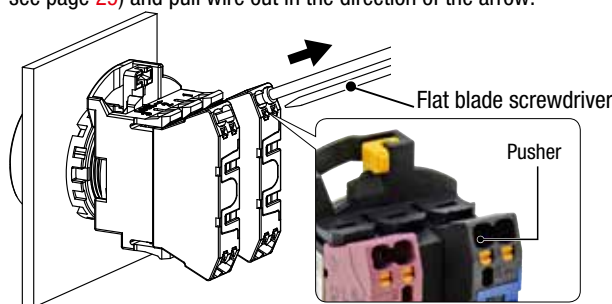
Pusher

<Notes>
• Operate the pusher with a force of 20N. Do not press excessively. Otherwise, the switch may be damaged.
• Do not pull the wire out without depressing the pusher. When pulling the wire, be sure to pull in a straight direction. Otherwise, the socket may be damaged.

Number of Connectable Wires

Unit		Connectable wires	No. of connectable wires
HW-P Contact block LED unit	Solid wire	0.25 to 1.5mm^2 (AWG16 to 24)	2
	Stranded wire	0.25 to 1.5mm^2 (AWG16 to 24)	
	Ferrule	Without insulated cover 0.25mm^2: conductor length 5 to 10mm 0.5 to 1.0mm^2: conductor length 6 to 10mm 1.5mm^2: conductor length 8 to 10mm With insulated cover 0.25 to 1.5mm^2:conductor length 6 to 10mm 1.5mm^2: conductor length 8 to 10mm Note) Pin terminals cannot be used	

Note) Only one wire can be inserted into one wire port.

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