ø22 HW Series Push-in Switches & Pilot Lights

- Push-in terminal connection reduces wiring time.
- Safety enhanced with IP20 finger-safe protection.

- See website for details on approvals and standards.

Note) Above approvals are for pushbuttons, selector switches, pilot lights only.
See page 33 for illuminated/non-illuminated buzzers.
See page 34 for emergency stop switches.

Specifications and Ratings

Contact Ratings

Pushbuttons Illuminated Pushbuttons Dual Pushbuttons Selector Switches Key Selector Switches Illuminated Selector Switches Selector Pushbuttons Monolever Switches Emergency Stop Switches	Rated insulation voltage	600V
	Rated continuous current	10A
	Contact ratings by utilization category IEC 60947-5-1	AC-15 (A600) DC-13

- See website for approved contact ratings.

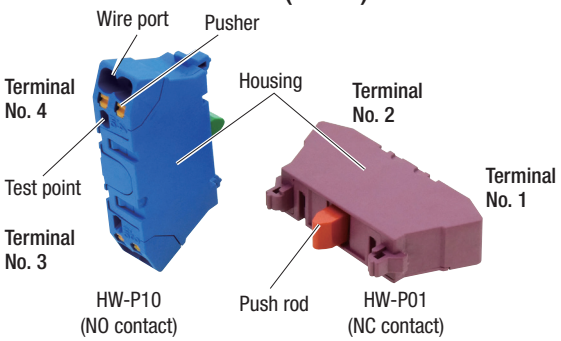
Rated Operating Voltage and Current by Utilization Category

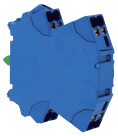
HW-P10 (NO contact), HW-P01 (NC contact), HW-PW20 (2NO contact), HW-PW11 (1NO-1NC contact), HW-PW02 (2NC contact)

Operating Voltage			24V	48V	50V	110V	220V	440V
Operating Current	AC 50/60 Hz	AC-12 Control of resistive loads and solid state loads	10A	–	10A	10A	6A	2A
		AC-15 Control of electromagnetic loads (> 72 VA)	10A	–	7A	5A	3A	1A
	DC	DC-12 Control of resistive loads and solid state loads	10A	5A	–	2.2A	1.1A	–
		DC-13 Control of electromagnets	5A	2A	–	1.1A	0.6A	–

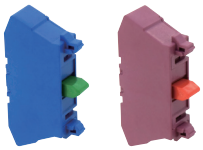
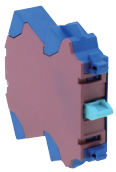
- The operating current represents making and breaking currents (IEC 60947-5-1).
- Contact materials: Silver contacts
- Minimum applicable load: 3V AC/DC, 5 mA (applicable range may vary with operating conditions)

Push-in Contact Block (HW-P)



	Single Contact Block		Double Contact Block		
Contact	1NO	1NC	2NO	2NC	1NO-1NC
Part No.	**HW-P10**	**HW-P01**	**HW-PW20**	**HW-PW02**	**HW-PW11**
Shape					
Housing	Blue	Purple red	Blue	Purple red	Blue/Purple red
Push Rod	Green	Red	Green	Red	Light Blue
Contact No.	3-4	1-2	1st deck: 13-14 2nd deck: 23-24	1st deck: 11-12 2nd deck: 21-22	1st deck: 13-14 2nd deck: 21-22
Weight	8g		16g		

Maintenance Parts

Name / Shape	Material	Part No.	Quantity	Remarks
Single Contact block 	NO contact Housing color: blue	HW-P10	5	Terminal no.: 1st deck 3-4
	NC contact Housing color: reddish purple	HW-P01	5	Terminal no.: 1st deck: 1-2
Double contact block 	2NO contact Housing color: blue	HW-PW20	5	Terminal no.: 1 deck: 13-14 2 deck: 23-24
	2NC contact Housing color: reddish purple	HW-PW02	5	Terminal no.: 1 deck: 11-12 2 deck: 21-22
	NONC contact Housing color: blue / reddish purple	HW-PW11	5	Terminal no.: 1 deck: 13-14 2 deck: 21-22
Full voltage adapter 		HW-DP	1	Applicable model: Illuminated pushbuttons Illuminated selector switches Dual pushbutton (with pilot light) Applicable load (LED lamp) LSRD-6 (6V AC/DC) LSRD-1 (12V AC/DC) LSRD-2 (24V AC/DC) LSRD-H2 (100/120V AC/DC) LSRD-M2 (200/220V AC) LSRD-M4 (230/240V AC)
Connecting unit 	Weight: approx. 9g	HW-CNP	1	Connecting unit for Push-in terminal
Dummy Block 	Polyamide (black)	CW-DB	5	Note) Switches with 1 contact block contain 2 dummy blocks. Switches with 2 contact blocks contain 1 dummy block.

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ø22 HW Series Instructions

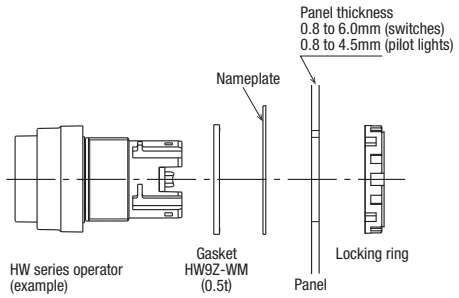
Safety Precautions

- Turn off the power to the HW 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.
- To avoid a burn on your hand, use the lamp holder tool when replacing lamps.
- For wiring, use wires of a proper size to meet the voltage, current requirements, and the number of connectable wires (page 57). 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

Panel Mounting

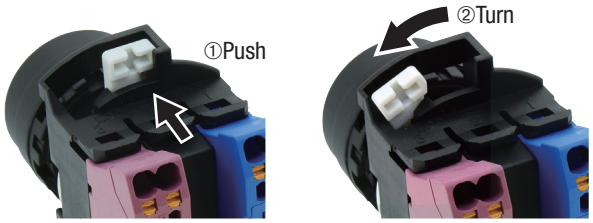
1. Remove the contact block from the operator.
2. Remove the locking ring from the operator
3. Insert the operator into the panel cut-out from the front.
   When mounting the nameplate, insert between the operator and panel.
4. Tighten the locking ring from the back.



Mounting panel thickness is reduced by 1.5 mm when using a nameplate.

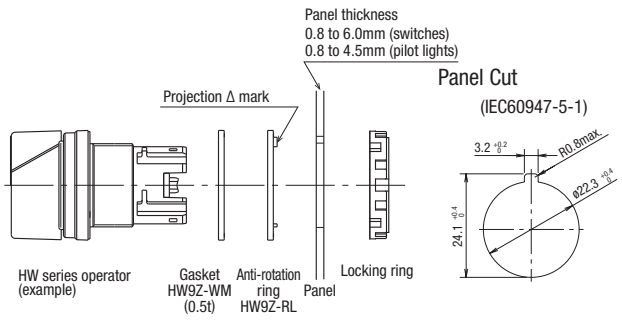
Removing the Contact Block

1. Remove the operator from the contact block by pushing and turning the locking lever in the direction of the arrow shown below. Then the operator can be pulled out.
2. To reinstall, place the TOP marking on the operator and the lock lever in the same direction, and insert the operator into the contact block mounting adapter. Then turn the locking lever in the opposite direction.



Anti-rotation Ring and Mounting Panel

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



Installing the Pilot Light

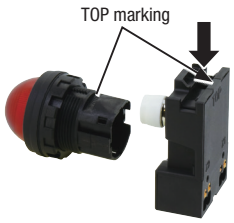
Detach the operator type from the LED unit. After mounting the operator from the front of the panel, attach the LED unit.

Installing / Removing the LED Unit

1. Detach the LED unit by lifting the latch using a small flat blade screwdriver width 0.5mm max.



2. To install, align the TOP marking on the operator with the TOP marking on the LED unit.



Notes for Panel Mounting

Locking ring wrench recommended torque

Tighten the bezel to a tightening torque of 2.0 N·m.

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)

Panel Thickness

HW series can be mounted on a panel with thickness of 0.8 to 6.0 mm (switches) and 0.8 to 4.5 mm (pilot lights). Take the thickness of nameplate and/or switch guard into consideration.