

# ø22 HW Series Switches & Pilot Lights

**Complete with finger-safe contact blocks  
Ensure safety and save wiring time**

- Finger-safe terminal blocks
- Self-cleaning rolling action contacts.
- Degree of protection: IP65 (except dual pushbutton: IP40)
- Dual pushbutton switches available with two pushbuttons and a pilot light integrated into one space-saving unit.
- A wide range of operating voltages for worldwide application.
- Six different colors with a single LED (LSRD). Only the lens needs to be replaced to change the illumination color.
- ISO3864-4 safety color compliant  
The bright and clear colors are suited for emergency situations



### Application for dual pushbuttons:

Ideal for use as power switches and start/stop switches (available with I/ON and O/OFF markings on the buttons and a pilot light in the center).

Interlock type prevents two pushbuttons from being pressed at the same time, providing the best solution for up/down switches.

## Specifications and Ratings

### Contact Ratings

|  |   |                       |
|--|---|-----------------------|
| Pushbuttons<br>Illuminated Pushbuttons<br>Dual Pushbuttons<br>Selector Switches<br>Illuminated Selector Switches<br>Selector Pushbuttons | Rated insulation voltage                                | 600V                  |
|  | Rated continuous current                                | 10A                   |
|  | Contact ratings by utilization category<br>IEC60947-5-1 | AC-15 (A600)<br>DC-13 |

### Contact Ratings by Utilization Category

**HW-U10 (NO contact), HW-U01 (NC 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 | —    |

**HW-U10R (EM contact/NO contact), HW-U01R (LB contact/NC 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 | 5A   | —    | 5A   | 5A    | 3A    | 1A   |
|                   |             | AC-15 Control of electromagnetic loads (> 72 VA)       | 5A   | —    | 3.5A | 2.5A  | 1.5A  | 0.5A |
|                   | DC          | DC-12 Control of resistive loads and solid state loads | 5A   | 2.5A | —    | 1.1A  | 0.55A | —    |
|                   |             | DC-13 Control of electromagnets                        | 2.5A | 1A   | —    | 0.55A | 0.3A  | —    |

- The operating current represents the classification by 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 and load types)

APEM

Switches & Pilot Lights

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

Flush Silhouette

ø16

ø22

ø30

Miniature

Pilot Lights

HW

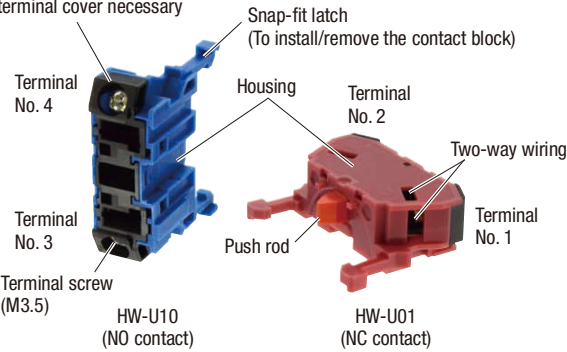
TW

YW

## ø22 HW Series Switches &amp; Pilot Lights

## HW-U Contact Block

IP20 construction  
No terminal cover necessary



| Part No.    | HW-U10      | HW-U01     | HW-U10R                 | HW-U01R                 |
|-------------|-------------|------------|-------------------------|-------------------------|
| Contact     |             |            |                         |                         |
| Contact No. | 1NO         | 1NC        | EM (NO)<br>(early make) | LB (NC)<br>(late break) |
| Contact No. | 3-4         | 1-2        | 3-4                     | 1-2                     |
| Housing     | Blue        | Purple red | Blue                    | Purple red              |
| Push Rod    | Green       | Red        | Black                   | White                   |
| Weight      | Approx. 11g |            |                         |                         |

- Up to 2 layers (4 blocks) can be attached.
- Gold contacts available (gold-plated silver)

## LED Illuminated Part Specifications

| Unit  | Rated Voltage |          | Operating Voltage |  | LED lamp  |          |
|---|---------------|----------|-------------------|--|-----------|----------|
|   |               |          |                   |  | Lamp Base | Part No. |
| Illuminated pushbutton<br>Illuminated selector switch<br>Pilot light<br>Dual pushbutton<br>(with pilot light) | 6V AC/DC      |          | 6V AC/DC          |  | BA9S/13   | LSRD-6   |
|   | 12V AC/DC     |          | 12V AC/DC         |  |           | LSRD-1   |
|   | 24V AC/DC     |          | 24V AC/DC         |  |           | LSRD-2   |
|   | 100/110V AC   | 50/60 Hz | 100/110V AC       |  |           | LSRD-6   |
|   | 115/120V AC   |          | 115/120V AC (*1)  |  |           |          |
|   | 200/220V AC   |          | 200/220V AC       |  |           |          |
|   | 230/240V AC   |          | 230/240V AC (*1)  |  |           |          |
|   | 380V AC       |          | 380V AC           |  |           |          |
|   | 400/440V AC   |          | 400/440V AC       |  |           |          |
|   | 480V AC       |          | 480V AC           |  |           |          |
| 110V DC   | 90 to 140V DC |          |                   |  |           |          |
|   |               |          | ±10%              |  |           |          |

- See **B-182**, for details on LED lamp ratings.
- For the LED lamp used in jumbo dome pilot lights and dual pushbutton switches (with pilot light), see **B-182**.
- Yellow (Y) cannot be used with dual pushbuttons.

## Illuminated Part Type and Shape

| Power Unit     | Illuminated Unit     |                |              |                  | Pilot Light          |                |                  |
|----------------|----------------------|----------------|--------------|------------------|----------------------|----------------|------------------|
|                | Full voltage adapter | Transformer    |              | DC-DC converter  | Full voltage adapter | Transformer    | DC-DC converter  |
| Rated Voltage  | 6, 12, 24V AC/DC     | 100 to 240V AC | 380V AC min. | 110V DC          | 6, 12, 24V AC/DC     | 100 to 480V AC | 110V DC          |
| Polarity       | None                 | None           | None         | X1 (+)<br>X2 (-) | None                 | None           | X1 (+)<br>X2 (-) |
| Shape/Terminal |                      |                |              |                  |                      |                |                  |