# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

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# **Double Action Hand Switch**

- Good operating feeling with snap action mechanism
- Easy to grip by hand
- Long stroke achieved by unique mechanism
- Having longtime experience in various applications like X-ray equipment

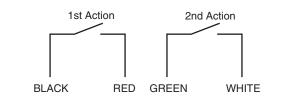
**RoHS Compliant** 

# Category

| Product code |
|--------------|
| C2U          |



# **Contact Form**



# **Operating Characteristics (initial)**

| Items            | Abbr. | Unit | Specification |
|------------------|-------|------|---------------|
| Operating force1 | OF1   | N    | 4.90±1.47     |
| Operating force2 | OF2   | N    | 15.69±2.94    |
| Pretravel 1      | PT1   | mm   | (3.5) *       |
| Pretravel 2      | PT2   | mm   | (11.5) *      |
| Total travel     | TT    | mm   | (15) *        |

### **Ratings**

| Resistive load |     |
|----------------|-----|
| 30 VDC         | 2 A |
| 125 VAC        | 2 A |

\* reference value

# Characteristics

| Operating speed                       | perating speed 1 mm to 1000 mm/sec      |   |  |
|---------------------------------------|---|---|--|
| Operating frequency                   | Mechanical                              | 120 ops/min max.  |  |
|                                       | Electrical                              | 60 ops/min max.   |  |
| Insulation resistance<br>(at 500 VDC) | Between terminals of same polarity      | 100 MΩ min.   |  |
|                                       | Between terminals of different polarity |   |  |
|                                       | Between non-live metal parts and ground |   |  |
| Contact resistance (initial) *1       |   | $2 \Omega$ max. (at wire terminal)                            |  |
| Dielectric strength                   | Between terminals of same polarity      | 1.000 VAC 50/60 Hz for 1 min.                                 |  |
|                                       | Between terminals of different polarity | - 1,000 VAC 50/60 H2 10F 1 Mill.                              |  |
|                                       | Between non-live metal parts and ground | 1,500 VAC 50/60 Hz for 1 min.                                 |  |
| Vibration<br>resistance *2            | Malfunction                             | Frequency: 10 to 55 Hz<br>1.5mm Double amplitude              |  |
| Shock resistance *2                   | Malfunction                             | 300 m/s <sup>2</sup> max.                                     |  |
| Durability                            | Mechanical                              | 500,000 operations min. (at 60 ops/min.)                      |  |
|                                       | Electrical                              | 200,000 operations min. (at 30 ops/min.)                      |  |
| Degree of protection                  |   | IEC IP00  |  |
| Ambient operating temperature         |   | -10 to +40°C (at 60% RH max.) (with no icing or condensation) |  |
| Ambient operating humidity            |   | 75% RH max. (for +5 to +35°C)                                 |  |
| Weight                                |   | Approx. 158 g   |  |

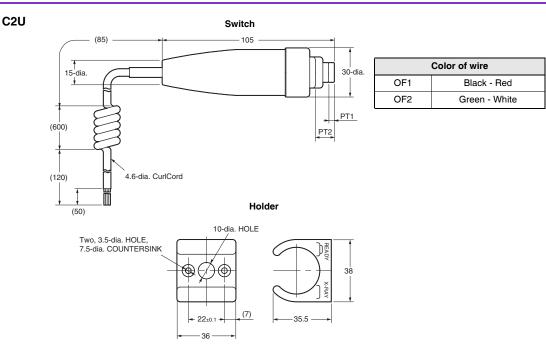
Note: The data given above are initial values.

\*1. Measured by voltage drop method at 1 A, 6 to 8 VDC

\*2. Close or open circuit of contact is 1 ms max.

(Unit: mm)

# Dimensions



**Note: 1.** The switch and the holder are supplied together.

- 2. Unless otherwise specified, a tolerance of  $\pm 0.8$  mm applies to all dimensions.
  - 3. ( ) dimensions are reference value.

### Precautions

#### \*Refer to General Information.

#### Warning Indications

| Precautions<br>for Safe Use | Supplementary comments on what to do or avoid doing, to use the product safely. |  |
|-----------------------------|---|--|
| Precautions                 | Supplementary comments on what to do or avoid                                   |  |
| for Correct                 | doing, to prevent failure to operate, malfunction,                              |  |
| Use                         | or undesirable effects on product performance.                                  |  |

#### **Precautions for Safe Use**

Use the Switch within the rated voltage and current ranges, otherwise the Switch may have a shortened life expectancy, radiate heat, or burn out. This particularly applies to the instantaneous voltages and currents when switching.

#### **Precautions for Correct Use**

#### • Wiring

- The rough standard for soldering work is as follows.
- Capacity of soldering iron: 60 W Soldering time: 3 sec max.

#### • Washing

• The Switches are not sealed, and cannot be washed. Doing so will cause the washing agent, together with flux or dust particles on the PCB, to enter the Switch, resulting in malfunction.

#### Application / Storage Environment

 Do not use the Switch in locations that are subject to toxic gas, silicon, excessive dust, excessive dirt, high temperatures, high humidity, sudden temperature changes, water splashes, or oil splashes.

Otherwise, damage resulting by contact failure of the Switch contacts, corrosion, or other causes, or other functional failure may occur.

- The operating characteristics, contact resistance, insulation resistance and dielectric strength of the Switches should be inspected before the usage, if there is the following conditions;
- If they are stored more than 1 year after the production.
- If they are fallen down.
- If condensation occurs.
- If they had been left out of the storage environmental conditions.

Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

Note: Do not use this document to operate the Unit.

OMRON Corporation Electronic and Mechanical Components Company

Contact: www.omron.com/ecb

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