Push Button Switch

## 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


## RoHS Compliant



## Category

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



## Operating Characteristics (initial)

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

* reference value


## Characteristics

| Operating speed |  | 1 mm to $1000 \mathrm{~mm} / \mathrm{sec}$ |
| :---: | :---: | :---: |
| Operating frequency | Mechanical | $120 \mathrm{ops} / \mathrm{min}$ max. |
|  | Electrical | 60 ops/min max. |
| Insulation resistance (at 500 VDC) | Between terminals of same polarity | $100 \mathrm{M} \Omega \mathrm{min}$. |
|  | 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 $50 / 60 \mathrm{~Hz}$ for 1 min . |
|  | Between terminals of different polarity |  |
|  | Between non-live metal parts and ground | 1,500 VAC $50 / 60 \mathrm{~Hz}$ for 1 min . |
| Vibration resistance *2 | Malfunction | Frequency: 10 to 55 Hz 1.5 mm Double amplitude |
| Shock resistance *2 | Malfunction | $300 \mathrm{~m} / \mathrm{s}^{2} \mathrm{max}$. |
| Durability | Mechanical | 500,000 operations min. (at $60 \mathrm{ops} / \mathrm{min}$.) |
|  | Electrical | 200,000 operations min. (at $30 \mathrm{ops} / \mathrm{min}$.) |
| Degree of protection |  | IEC IP00 |
| Ambient operating temperature |  | -10 to $+40^{\circ} \mathrm{C}$ (at $60 \%$ RH max.) (with no icing or condensation) |
| Ambient operating humidity |  | $75 \%$ RH max. (for +5 to $+35^{\circ} \mathrm{C}$ ) |
| 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.

## Dimensions

C2U


Note: 1. The switch and the holder are supplied together.
2. Unless otherwise specified, a tolerance of $\pm 0.8 \mathrm{~mm}$ 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 <br> doing, to use the product safely. |
| :---: | :--- |
| Precautions <br> for Correct <br> Use | Supplementary comments on what to do or avoid <br> doing, to prevent failure to operate, malfunction, <br> 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.

Please check each region's Terms \& Conditions by region website.

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