## : ©hipsmall

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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## NP Series

## Sealed Industrial Pushbutton Switch

| Features/Benefits | Typical Applications |
| :--- | :--- |
| - IP68 sealed | - Harsh environments |
| - 1,000,000 life cycle | - Off-Road |
| - Multiple housing styles | - Industrial |
| - Capable of up to 5A resistive load | - Transportation |
| - Wirelead options available | - Military |
| - RoHS compliant |  |



## Specifications

FUNCTION: SPDT Double Break (Form Z) Momentary
CONTACT ARRANGEMENT: N.O. and N.C.
MOUNTING TYPE: Threaded front or rear mount and slot mount TORQUE SPEC FOR THREADED BODY: Do not exceed 50 in-lbs (5.65 N-m)

## Mechanical

OPERATING LIFE: 1,000,000 cycles
TOTAL TRAVEL: $1.6 \pm 0.15 \mathrm{~mm}$
OPERATING POINT $0.9 \pm 0.25 \mathrm{~mm}$
OVER TRAVEL: 0.45 min .
OPERATING FORCE: $8 \mathrm{~N} \pm 1.5 \mathrm{~N}$
VIBRATION: $10-500 \mathrm{~Hz} 10 \mathrm{~g}$ Max
SHOCK: 50 g 11 ms sawtooth wave

## Electrical

CONTACT RATING:
Option G - Gold over Silver
$10 \mathrm{~mA} / 5 \mathrm{VDC}$ ( $1,000,000$ cycles)
Option Q - Silver
1A/32 VDC resistive ( 100,000 cycles)
5A/32 VDC resistive ( 25,000 cycles)
3A/32 VDC resistive ( 25,000 cycles)

## Electrical (cont.) <br> DIELECTRIC STRENGTH: 1000 V AC for 1 min . <br> INSULATION RESISTANCE: 1 G $\Omega$ @ 500 VDC INITIAL CONTACT RESISTANCE $50 \mathrm{~m} \Omega$ max (without wire leads) BOUNCE TIME: <5 ms <br> Materials <br> HOUSING: 6061-T6 Aluminum, black or clear anodized BASE: PBT <br> CAP: PBT <br> ACTUATOR: PBT <br> INTERNAL SEAL: Silicone rubber <br> TERMINALS: Copper with silver nickel inlay, silver plating MOVABLE CONTACT: Copper alloy, gold over silver plating TERMINAL SEAL: Epoxy <br> Operating Environment <br> OPERATING TEMPERATURE: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ ESD PROTECTION: 15 KV min. <br> Process Environment <br> SEALING: IP68 <br> NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, please contact Customer Service.

## Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box.


## NP Series <br> Sealed Industrial Pushbutton Switch



ELECTRICAL SCHEMATIC


## OPERATING FORCE

| OPTION <br> CODE | OPERATING FORCE |
| :---: | :---: |
| 8 | 8 N |

## ACTUATOR STYLE

E extended (D housing style only)


ACTUATOR COLOR

| OPTION <br> CODE | ACTUATOR COLOR |
| :---: | :---: |
| 2 | Black |
| 3 | Red |
| 4 | Orange |
| 5 | Yellow |
| 9 | Gray |

For additional colors please contact Customer Service.

NP Series

## Sealed Industrial Pushbutton Switch

## HOUSING STYLE

T standard threaded mount


PC TERMINALS


L long threaded mount

(4) $\rightarrow \substack{\text { Thind Arge } \\ \text { procion }}$


NP Series
Sealed Industrial Pushbutton Switch

## HOUSING STYLE

## R rear mount




PC HOLE PATTERN
BOARD VIEW


PANEL CUTOUT


C\&K


> HOUSING ANODIZING COLOR

| OPTION <br> CODE | ANODIZING COLOR |
| :---: | :---: |
| 1 | Clear anodized |
| 2 | Black anodized (STD) |

## TERMINATION

03 solder lug (STd)


02 PC PIN (G CONTACT MATERIAL)


NP Series
Sealed Industrial Pushbutton Switch





CONTACT MATERIAL

| OPTION <br> CODE | CONTACT MATERIAL |
| :---: | :---: |
| $\mathbf{Q}$ | Silver (STD) |
| G | Gold over Silver |

TERMINAL SEAL
E epoxy
All models are epoxy sealed



