Tactile Switch (SMT)

## B3FS

## $6 \times 6-\mathrm{mm}$ Surface-mounting Switches

## for High-density Mounting.

Available on Embossed Tape

- Provide a sharp click and high durability.
- Tape packing style also available.
- B32-series Key Tops mount to models with projected plungers.

RoHS Compliant


## ■ List of Models

## $6 \times 6 \mathrm{~mm}$ Models

| Type | Contact material | Plunger type | Height | Operating force (OF) | Plunger color | Bag |  | Embossed taping |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Model | Minimum packing unit | Model | Minimum packing unit |
| B3FS-1000models | Silver plated |  | 3.1 mm | $0.98 \mathrm{~N}\{100 \mathrm{gf}\}$ | Black | B3FS-1000 | 100 | B3FS-1000P | 3,000 |
|  |  |  |  | $1.47 \mathrm{~N}\{150 \mathrm{gf}\}$ | Ivory | B3FS-1002 |  | B3FS-1002P |  |
|  |  |  |  | 2.55 N \{260 gf \} | Blue | B3FS-1005 |  | B3FS-1005P |  |
|  |  |  | 4.3 mm | $0.98 \mathrm{~N}\{100 \mathrm{gf}\}$ | Black | B3FS-1010 |  | B3FS-1010P | 1,000 |
|  |  |  |  | $1.47 \mathrm{~N}\{150 \mathrm{gf}\}$ | Ivory | B3FS-1012 |  | B3FS-1012P |  |
|  |  |  |  | 2.55 N \{260 gf \} | Blue | B3FS-1015 |  | B3FS-1015P |  |
|  |  |  | 7.3 mm | $0.98 \mathrm{~N}\{100 \mathrm{gf}\}$ | Black | B3FS-1050 |  | B3FS-1050P |  |
|  |  | (Projected type) |  | $1.47 \mathrm{~N}\{150 \mathrm{gf}\}$ | Yellow | B3FS-1052 |  | B3FS-1052P |  |

Note: Order in multiples of the minimum order unit. Switches are not sold individually.

## ■ Ratings/Characteristics

| Rating (resistive load) | 1 to $50 \mathrm{~mA}, 3$ to 24 VDC |
| :--- | :--- |
| Minimum applicable load (reference value) | $10 \mu \mathrm{~A}$ at 1 VDC (resistive load) |
| Ambient operating temperature | $-25^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ at $60 \% \mathrm{RH}$ max. (with no icing or condensation) |
| Ambient operating humidity | $35 \%$ to $85 \%$ (at +5 to $+35^{\circ} \mathrm{C}$ ) |
| Contact form | $\mathrm{SPST}-\mathrm{NO}$ |
| Contact resistance (initial value) | $100 \mathrm{~m} \Omega$ max. |
| Insulation resistance | $100 \mathrm{M} \Omega$ min. (at 100 VDC with insulation tester) |
| Dielectric strength | $250 \mathrm{VAC}, 50 / 60 \mathrm{~Hz}$ for 1 min |
| Bounce time | 5 ms max. |
| Vibration resistance | Malfunction: 10 to $55 \mathrm{~Hz}, 1.5-\mathrm{mm}$ double amplitude |
| Shock resistance | Destruction: $1,000 \mathrm{~m} / \mathrm{s}^{2}\{$ approx. 100 G$\}$ max. <br> Malfunction: $100 \mathrm{~m} / \mathrm{s}^{2}\{$ approx. 10 G$\}$ max. |
| Durability | Standard models $(\mathrm{OF:} 0.98 \mathrm{~N}\{100 \mathrm{gff}\}): 1,000,000$ operations min. <br> High-force models (OF: $1.47 \mathrm{~N}\{150 \mathrm{gf}\}): 300,000$ operations min. <br> High-force models (OF: $2.55 \mathrm{~N}\{260 \mathrm{gf}\}): 100,000$ operations min. |
| Weight | Approx. 0.2 g |
| Degree of protection | IEC IP00 |
| Washing | Not possible |

## ■ Operating Characteristics

## $6 \times 6 \mathrm{~mm}$ Models

| TypeOperating force (OF) | B3FS-1000 |  |  |
| :---: | :---: | :---: | :---: |
|  | 0.98 N | 1.47 N | 2.55 N |
| Item Model | B3FS-10 $\square 0 \square$ | B3FS-10 $\square$ 2 $\square$ | B3FS-10 $\square \square$ |
| Operating force (OF) | $\begin{aligned} & 0.98 \pm 0.29 \mathrm{~N} \\ & \{100 \pm 30 \mathrm{gf}\} \end{aligned}$ | $\begin{aligned} & 1.47 \pm 0.49 \mathrm{~N} \\ & \{150 \pm 50 \mathrm{gf}\} \end{aligned}$ | $\begin{aligned} & 2.55 \pm 0.69 \mathrm{~N} \\ & \{260 \pm 70 \mathrm{gf}\} \end{aligned}$ |
| Releasing force (RF) | $0.2 \mathrm{~N}\{20 \mathrm{gf}\} \mathrm{min}$. | $0.49 \mathrm{~N}\{50 \mathrm{gf}\} \mathrm{min}$. | $0.49 \mathrm{~N}\{50 \mathrm{gf}\} \mathrm{min}$. |
| Pretravel (PT) | $0.25{ }^{+0.2} /-0.1 \mathrm{~mm}$ |  |  |

## - Dimensions (Unit: mm)

Note: The numbers used for terminals in the following graphics are indicated in the "Bottom View" diagram below. In this diagram, the Switch is rotated so that the terminals are on the right and left-hand sides, and the OMRON logo appears the right way up.

## 66 mm Models

Flat Type
B3FS-1000
B3FS-1002
B3FS-1005
B3FS-1000P
B3FS-1002P
B3FS-1005P


PCB Pad
$($ Top View $)$
$(\mathrm{PCB} t=1.6)$


Terminal Arrangement/ Internal Connection (Top View)


PCB Pad (Top View) ( $\mathrm{PCB} \mathrm{t}=1.6$ )

Terminal Arrangement/ Internal Connection (Top View)


Terminal Arrangement/ Internal Connection (Top View) (Top View) ( $\mathrm{PCBt} \mathrm{t}=1.6$ )


Projected Type
B3FS-1050
B3FS-1052
B3FS-1050P
B3FS-1052P



B3FS-1015P


Note: Unless otherwise specified, a tolerance of $\pm 0.4 \mathrm{~mm}$ applies to all dimensions. No terminal numbers are indicated on the Switches.

## - Key Tops

B32-series Key Tops are available for projected plungers. Refer to the Datasheet of B32 for details.

## ■ Precautions

Be sure to read the safety precautions common to all Tactile Switches for correct use.

[^0]Note: Do not use this document to operate the Unit.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components
Click to view similar products for Tactile Switches category:
Click to view products by Omron manufacturer:

Other Similar products are found below :
5GTH92001 5GTH9202242 6407-250V-25273P ADTSA62NV ADTSA62RV B3F-3123 1977177-8 1977266-1 ADTSA63NV ADTSM21NSVTR ADTSM25RVTR ADTSM32NVTR ADTSMW64RV FSMRA4JHA04 GS4.70F300QP 3ESH9R KSC241J SP DELTA LFS 3FTL600RAS 3FTL640RAS Y96K132V0FPLFS 5GTH9658222 ADTSM31NVTR 2-1977120-7 TSJW-5.2-260-TR KMT011MNGJLHS 70-201.0 ADTSG648NV ADTSM62KSVTR ADTSM648NV 95C06E3RAT 5GTH96561 3ATH9Q FSM4JSMLXTR FSM4JSMXL FSMRA8JHA04 HARS0073 Y97HS12A5RAFP Y97BT23B2HAFP Y33R411N9FPLFT Y31C01402FPLFS PTS645SK50SMTR92 ADTSM32NVB KMS233GPWTLFG Y78B42324FP Y33R21116FPLFT Y31B43131FPLFG Y78B64124FP Y71243251FP Y33R31119FPLFT Y97HS12A5TAFP


[^0]:    - 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.

