## MICRO SWITCH Hazardous Area Switches



## DESCRIPTION



The MICRO SWITCH BX/BX2 Series are designed for applications in hazardous or explosive environments requiring a rugged, durable switch virtually anywhere in the world. To comply with explosion-proof switching requirements, the flame path within the switch housing is designed to contain and cool escaping hot gases and fumes that could cause an explosion outside of the switch. Regardless of where the equipment or machinery is designed, built, or installed, $B X$ and $B X 2$ Series products carry global agency coverage.

Honeywell offers two versions of the BX series switch: the standard BX Series features an aluminum housing, while the BX2 series features a 316L stainless steel housing. The stainless steel housing adds additional resistance against corrosion in applications exposed to aggressive, caustic agents, as well as those often present in chemical processing plants, off-shore/near-shore sites, and other hazardous areas. Both products are weather sealed for outdoor use and designed for explosive gas/dust environments. All operating heads of the $B X / B X 2$ Series are field adjustable at $90^{\circ}$ increments.

## FEATURES

- Approvals: UL, CSA, ATEX (CE), UKEX (UKCA), IEC Ex, INMETRO (Brazil), NEPSI Ex (China), and KOSHA/KTL (select listings - Korea)
- Sealed to IP67, NEMA 1, 3, 4, 6, 13
- Industry-leading breadth of products
- Two rugged designs are available: aluminum or corrosion-resistant stainless steel head and body
- A diaphragm seal between head and body provides an extra measure of protection
- Optional fluorocarbon seals are available for harsh chemical or higher temperature environments
- Secure head-to-body retention with the head in any one of four positions $90^{\circ}$ apart
- Self-lifting pressure plate terminals saves wiring time.
- Wide variety of non-sparking actuators, switch options, and head styles for design flexibility
- Rotary actuated heads are field adjustable for CW actuation, CCW actuation, or both to reduce inventory
- Choice of silver or gold-plated contacts


## POTENTIAL APPLICATIONS

- Grain elevators
- Control valves and actuators
- Off-shore and on-shore drilling
- Pipelines
- Petrochemical and chemical plants
- Water treatment plants
- Paint booths
- Conveyors (above-ground)
- Pulp and paper
- Hazardous waste handling


## VALUE TO CUSTOMERS

- Around-the-world use in hazardous areas with international approvals: UL, CSA, ATEX (CE), UKEX (UKCA), IEC Ex, INMETRO, KOSHA/KTL, and NEPSI Ex (China)
- Industry-leading breadth of product offering that includes: BX (aluminum housing) and BX2 (stainless steel housing) limit switches for hazardous locations
- 303 stainless steel operating shaft on sintered bronze bearing for enhanced mechanical life and operational reliability


## DIFFERENTIATION

- Top-of-the-line environmental sealing combined with Honeywell expertise for hazardous location package design provides the right product for the right application
- Exclusive teller tab on levers ensures proper torque. When the tab cannot be moved, the lever is tight enough to prevent slippage



## PORTFOLIO

Honeywell offers a wide range of limit switches in different size packages and hazardous environments. These limit switches include the BX/BX2 Series, CX Series, EX Series, LSX Series, GXS Series, and 14CE100 Series.

## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

Figure 1. MICRO SWITCH BX Series Features and Options
The MICRO SWITCH BX2 limit switch has similar features, except a 316L stainless steel head and body without epoxy coating.


Rugged aluminum head and body are phosphate treated and epoxy coated

External ground screw for agency compliance. Internal ground screw provided on all products for agency compliance


Flurosilicone seals extend operating temperature down to $-40^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right]$

Two flame paths: one in the cover-housing threads; another between the switch - cavity and head
$\square$
$0.5 \mathrm{in}, 0.75$ in or 20 mm conduit options

## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

Figure 2. MICRO SWITCH BX Series Product Nomenclature


To order fluorocarbon versions, insert the additional letter $\mathbf{C}$ in the appropriate places in the standard catalog listing, as shown below:

| BXA3K | standard, side-rotary switch |
| :--- | :--- |
| BXAC3K | completely FC-sealed version of BXA3K |


| TABLE 1. SPECIFICATIONS |  |  |  |
| :---: | :---: | :---: | :---: |
| Characteristic | Parameter |  |  |
| Product type | MICRO SWITCH hazardous area limit switches |  |  |
| Actuators | Side pin plunger <br> Side rotary <br> Top pin plunger - adjustable <br> Wobble - cat whisker | Side pin plunger - adjustable <br> Side rotary maintained <br> Top roller plunger <br> Wobble - plastic rod | Side roller plunger <br> Top pin plunger <br> Top rotary |
| Circuitry | 1NC 1NO SPDT snap action, double break 2NC 2NO DPDT snap action, double break 2NC 2NO DPDT snap action, double break, sequential 2NC 2NO DPDT snap action, double break, center neutral 3NC 1NO slow action, double break |  |  |
| Electrical | 10 A thermal <br> Single and double pole: AC15 A600; DC13 R300 (see table on page 5) |  |  |
| Housing material | Aluminum (BX) or Stainless Steel (BX2) |  |  |
| Termination types | 0.5 in - 14 NPT conduit 0.75 in - 14 NPT conduit 20 mm conduit |  |  |
| Housing type | BX/BX2 non-plug-in |  |  |
| Sealing | NEMA 1, 3, 4, 6, 13; IP67 |  |  |
| Operating temperature* | Standard with fluorosilicone seals: $-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right]$ Optional with fluorocarbon seals: $-12^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ [ $10^{\circ} \mathrm{F}$ to $\left.158^{\circ} \mathrm{F}\right]$ |  |  |
| ATEX/IEC Ex protection class | \\| 2 GD, Ex db IIC T6 Gb, Ex tb IIIC $785^{\circ} \mathrm{C}$ Db |  |  |
| UNSPSC code | 302119 |  |  |
| UNSPSC commodity | 302119 Switches and controls and relays |  |  |

* Reference operating head styles on page 6 for exceptions.


[^0]
## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

MICRO SWITCH BX and BX2 Series Electrical Ratings 10 A continuous carry; ac Volts; Pilot Duty: AC15, A600

| Electri- <br> cal <br> Rating | Cir- <br> cuitry | Vac | Amps at 0.35 <br> Power Factor <br> Make | Amps at 0.35 <br> Power Factor <br> Break |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 120 | 60 | 6 |
| AC15, <br> A600 | SPDT | 240 | 30 | 3 |

MICRO SWITCH BX and BX2 Series Electrical Ratings
dc Volts; Pilot Duty: DC13, R300

| Electri- <br> cal <br> Rating | Cir- | Vdc | Make \& Break <br> Amps | Make \& Break <br> Amps <br> Inductive |
| :---: | :---: | :---: | :---: | :---: |
| Resistive |  |  |  |  |
| RC13, | SPDT | 120 | 0.25 | 0.8 |
| R300 | DPDT | 240 | 0.15 | 0.4 |

MICRO SWITCH BX and BX2 limit switches are capable of the following low voltage dc loads

| Circuitry | Vdc | Amps <br> Inductive | Amps <br> Resistive |
| :---: | :---: | :---: | :---: |
| SPDT, DPDT | 24 | 10 | 10 |

Switch Contact Styles, Double Break


NOTE: Same polarity each pole

Low Temperature Limits
For all MICRO SWITCH BX/BX2 styles, the upper temperature limit is $70^{\circ} \mathrm{C}\left[158^{\circ} \mathrm{F}\right]$, while the lower temperature limit is per the table below.

| Operating Head Styles | MICRO SWITCH BX/BX2 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Standard (Fluorosilicone) |  | Optional (Flurocarbon Sealed) |  |
|  | $-40^{\circ} \mathrm{C}$ [-40 $\left.{ }^{\circ} \mathrm{F}\right]$ | $-29^{\circ} \mathrm{C}\left[-20^{\circ} \mathrm{F}\right]$ | $-12{ }^{\circ} \mathrm{C}$ [10 ${ }^{\circ} \mathrm{F}$ ] | $-1{ }^{\circ} \mathrm{C}$ [30 ${ }^{\circ} \mathrm{F}$ ] |
| BXA, BX2A - Side Rotary Momentary | - |  | - |  |
| BXB - Top Rotary |  | - |  | - |
| BXC, BX2C - Top Pin Plunger | - |  | - |  |
| BXD, BX2D - Top Roller Plunger | - |  | - |  |
| BXE, BX2E - Side Pin Plunger | - |  | - |  |
| BXF, BX2F - Side Roller Plunger | - |  | - |  |
| BXH, BX2H - Side Rotary, Low Pretravel and Torque |  | - |  | - |
| BXJ - Wobble Stick |  | - |  | - |
| BXK - Cat Whisker |  | - |  | - |
| BXL, BX2L - Side Rotary, Sequential Operation | - |  | - |  |
| BXM, BX2M - Side Rotary, Center Neutral | - |  | - |  |
| BXN, BX2N - Side Rotary, Maintained |  | - |  | - |
| BXP, BX2P - Side Rotary, Low Pretravel | - |  | - |  |
| BXR, BX2R - Side Rotary, Low Torque |  | - |  | - |
| BXV - Top Adjustable Plunger | - |  | - |  |
| BXW - Side Adjustable Plunger | - |  | - |  |

## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

## Fluorocarbon Sealed Switches (optional)

Fluorocarbon (FC)-sealed switches have an FC o-ring between the threaded cover and body. Rotary types have an extra FC seal on the operating shaft, while plunger versions have FC boot seals. They are for use in applications where the environment includes fire-resistant synthetic fluids, synthetic fluids, water-based fluids, and petroleum-based fluids. The additional FC seals also promote longer operating life for rotary-actuated $B X / B X 2$ switches in applications where the temperatures are normally elevated.

## MICRO SWITCH BX/BX2 Series Operating Heads*

SIDE ROTARY: Heads may be positioned in any one of four positions, $90^{\circ}$ increments. All are momentary action except maintained head (BXN/BX2N Series).


BXA/BX2A - Standard: $60^{\circ}$ minimum overtravel, $15^{\circ}$ maximum pretravel, $5^{\circ}$ (single pole) and $7^{\circ}$ (double pole) maximum differential travel.

BXR/BX2R - Low operating torque: $60^{\circ}$ minimum overtravel, $15^{\circ}$ maximum pretravel, 0.19 Nm [1.7 in lb] maximum operating torque.
BXN/BX2N - Maintained contact: Maintained on counterclockwise rotation and reset on clockwise rotation, and vice versa.
BXP/BX2P - Low differential: $68^{\circ}$ minimum overtravel, $9^{\circ}$ maximum pretravel, $3^{\circ}$ (single pole) and $4^{\circ}$ (double pole) maximum differential travel.

BXH/BX2H - Low torque, low differential travel: $68^{\circ}$ minimum overtravel. Features low operating torque and narrow differential travel.

BXL/BX2L - Sequential operation: $48^{\circ}$ minimum overtravel. Delayed action between operation of two poles.
BXM/BX2M - Center neutral: $57^{\circ}$ minimum overtravel. One pole operates on the clockwise rotation, and the other pole on the counterclockwise rotation.
*BX Series epoxy-coated zinc heads are shown for illustration.
BX2 Series heads are 316L stainless steel.

To order, insert the additional letter $\mathbf{C}$ in the appropriate places in the standard catalog listing, as shown below:

| BXA3K | standard, side-rotary switch |
| :--- | :--- |
| BXAC3K | FC-sealed version of BXA3K |
| BX2A3K | standard, stainless steel side-rotary switch |
| BX2AC3K | Fluorocarbon-sealed version of BX2A3K |

TOP ROTARY: Available levers provide greater versatility. Heads may be positioned in any one of four positions, $90^{\circ}$ increments. All are momentary action.


BXB: With $100^{\circ}$ minimum overtravel. Various levers that fit side rotary shafts may be used on the top rotary shaft. Switch is suitable when increased overtravel is required.

TOP PLUNGERS: Available with $4,83 \mathrm{~mm}$ [0.19 in] minimum overtravel. Top pin plungers are offered in pin plunger, an adjustable plunger, and a roller plunger. All are momentary action.


BXC/BX2C - Top pin plunger: A copper alloy plunger for in-line actuating motion. Oil-tight seals on plunger and between the operating head and housing keep out coolant, dust, and chips.


BXD/BX2D - Top roller plunger: $A$ copper alloy roller plunger is adjustable to $90^{\circ}$ angles to accept cam or slide operation from any of two directions. Boot seal on the plunger.


BXV - Adjustable top pin plunger: A copper alloy adjustable plunger provides easy application and saves on installation time. The operating points of the switch can be adjusted from 52,8 mm to $59,3 \mathrm{~mm}$ [2.085 in to 2.335 in ]. Seals are the same as the pin plunger.

## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

MICRO SWITCH BX/BX2 Series Operating Heads
SIDE PLUNGERS: Available with $4,83 \mathrm{~mm}$ [ 0.19 in ] minimum overtravel. Side plungers are offered in pin plunger, adjustable pin plunger, and a roller plunger. All are momentary action.

BXE/BX2E - Side pin plunger: A copper alloy plunger for actuating motion
 inline with the plunger travel. Actuating head may be rotated in any of four positions, $90^{\circ}$ apart. A boot seal on the plunger and a gasket seal between the head and housing keep out coolant, dust, and chips.

WOBBLE LEVER ACTUATING HEADS: Heads come with either a Delrin plastic rod or copper alloy cat whisker. Any movement of the lever (except pull) will actuate the switch.


## BXK - Plastic rod:

Recommended where possible scratching or marring by the actuator is to be avoided.


## BXJ - Cat whisker:

Copper alloy actuator designed for low operating force applications.

BXF/BX2F - Side roller plunger: A copper alloy roller plunger fits close quarters under cams and slides. The head may be rotated in any of four positions, $90^{\circ}$ apart. The roller can be turned vertical or horizontal to the switch. Boot seal on plunger.
BXW - Adjustable side pin plunger:
Has the same features of the side plain plunger plus the means to adjust the operating points of the switch from 41 mm to 47.4 mm [1.615 in to 1.865 in ].

MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES


Contact closed ■; Contact open $\square$
Actuating head is factory set for CW and CCW actuation. Easily field adjusted for CW or CCW per instructions included with switch.
NOTE: Same polarity each pole

* Operating temperature range for standard fluorosilicone sealed switch. For optional fluorocarbon sealed switch, see temperature table, page 8. To order a fluorocarbon sealed version, insert the additional letter "C" in the standard catalog listing, as follows. The BXA3K limit switch is changed to a BXAC3K limit switch.

MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

| SIDE ROTARY • MICRO SWITCH BX/BX2 SERIES ORDER GUIDE/RECOMMENDED LISTINGS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BXR • Low Torque, CW and CCW Momentary |  | Housing Material | Contacts (snap-action) | Contact Material | Conduit | Listing |
|  |  | Aluminum | 1NC-1NO | Silver | 0.5-14 NPT | BXR3K |
|  | ```\[ \text { Pretravel• } \mathbf{1 5 ^ { \circ }} \text { max. } \] \[ \text { Diff. travel (SPDT) • } 5^{\circ} \text { max } \]``` | Aluminum | 1NC-1NO | Gold plate | 0.5-14 NPT | BXR3E |
|  | ```Overtravel•60 Oper. torque • 0,19 Nm [1.7 in-lb] max. *Oper.temp - -2 }\mp@subsup{9}{}{\circ}\textrm{C}\mathrm{ to }7\mp@subsup{0}{}{\circ}\textrm{C}[-2\mp@subsup{0}{}{\circ}\textrm{F}\mathrm{ to 158 % F] 15``` | Aluminum | 2NC-2NO | Silver | 0.75-14 NPT | BXR4L |
|  |  | Aluminum | 2NC-2NO | Gold plate | 0.75-14 NPT | BXR4S |
| BXH•Low Differential, Low Torque, CW and CCW Momentary |  | Housing Material | Contacts (snap-action) | Contact Material | Conduit | Listing |
|  | Pretravel $\cdot 9^{\circ}$ max. <br> Diff. travel (SPDT) • $3^{\circ}$ max. <br> Diff. travel (DPDT) • $4^{\circ}$ max <br> Overtravel $\bullet 66^{\circ}$ min. <br> Oper. torque •0,19 Nm [1.7 in-lb] max. <br> *Oper. temp $\cdot-29^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[-20^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right]$ | Aluminum | 2NC-2NO | Silver | 0.75-14 NPT | BXH4L |
| BXB • Top Rotary, CW and CCW Momentary |  | Housing Material | $\begin{aligned} & \text { Contacts } \\ & \text { (snap-action) } \end{aligned}$ | Contact Material | Conduit | Listing |
|  | Pretravel $\cdot 35^{\circ}$ max. <br> Diff. travel (SPDT) • $8^{\circ}$ max. <br> Diff. travel (DPDT) $\cdot 12^{\circ}$ max <br> Overtravel $\cdot 100^{\circ} \mathrm{min}$. <br> Oper. torque $0,28 \mathrm{Nm}[2.5 \mathrm{in}-\mathrm{lb}]$ max. <br> *Oper. temp $\cdot-29^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[-20^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right]$ | Aluminum | 1NC-1NO | Silver | 0.5-14 NPT | BXB3K |

Contact closed ■ Contact open $\square$
Actuating head is factory set for CW and CCW actuation. Easily field adjusted for CW or CCW per instructions included with switch.
NOTE: Same polarity each pole.

* Operating temperature range for standard fluorosilicone sealed switch. For optional fluorocarbon sealed switch, see temperature table, page 8. To order a fluorocarbon sealed version, insert the additional letter "C" in the standard catalog listing, as follows. The BXA3K limit switch is changed to a BXAC3K limit switch.


## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES




Pretravel $\cdot 18^{\circ}$ max.
Diff. travel $\cdot 10^{\circ}$ max.
Overtravel $\cdot 57^{\circ} \mathrm{min}$
Oper. torque $\cdot 0,45 \mathrm{Nm}[4 \mathrm{in}-\mathrm{lb}]$ max
Aluminum
2NC-2NO
Silver
0.75-14 NPT

BXM4N


| Aluminum | 2NC-2NO | Silver | 20 mm | BX4M4N |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |

Contact closed ■ Contact open $\boldsymbol{\square}$
NOTE: Same polarity each pole.
Operating temperature range for standard fluorosilicone sealed switch. For optional fluorocarbon sealed switch, see temperature table, page 8. To order a fluorocarbon sealed version, insert the additional letter "C" in the standard catalog listing, as follows. The BXA3K limit switch is changed to a BXAC3K limit switch.

## MICRO SWITCH HAZARDOUS AREA SWITCHES

 BX/BX2 SERIES
## TABLE 3. COMMON LEVERS FOR USE WITH MICRO SWITCH BX ROTARY SWITCHES*

Levers for use with side-rotary-actuated switches are available in a wide choice of sizes and materials. The most common listings are shown below. Rollers may be on either side of the lever to best match the external actuating mechanism.


Fixed lever, nylon roller LSZ51A - front mount roller LSZ51C - back mount roller
Short fixed lever, nylon roller LSZ59A - front mount roller LSZ59C - back mount roller

Offset lever, nylon roller LSZ55A - back mount roller LSZ55C - front mount roller


One-way lever, nylon roller
LSZ60A - front mount roller

One-way lever, nylon roller
LSZ60A - front mount roller

Yoke lever, nylon rollers LSZ53A - front/back mount rollers

Adjustable lever,
nylon roller
LSZ52A - back mount
roller
LSZ52C - front mount
roller


| LSZ54M <br> aluminum <br> rod | LSZ61 |
| :---: | :---: |
| 140 mm <br> $[5.5 \mathrm{in}]$ | $152 \mathrm{~mm}[6 \mathrm{in}]$ |

LSZ67CA**

| Plastic conveyor |
| :--- |
| roller |

LSZ68
rod with spring
305 mm
[12 in]

[^1]MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES



[^2]MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES


Contact closed ■ Contact open $\square$
NOTE: Same polarity each pole.

* Operating temperature range for standard fluorosilicone sealed switch. For optional fluorocarbon sealed switch, see temperature table, page 8. To order a fluorocarbon sealed version, insert the additional letter "C" in the standard catalog listing, as follows. The BXA3K limit switch is changed to a BXAC3K limit switch.


## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

SIDE PLUNGER • MICRO SWITCH BX/BX2 SERIES ORDER GUIDE/RECOMMENDED LISTINGS
All side plungers are momentary action.

BXE /BX2E•Side Pin Plunger $\quad$ Housing Material

| $\substack{\text { Contacts } \\ \text { (snap-action) }}$ | Contact Material |
| :---: | :---: |

(snap-action)

| Aluminum | $1 \mathrm{NC}-1 \mathrm{NO}$ | Silver | $0.5-14 \mathrm{NPT}$ | BXE3K |
| :---: | :---: | :---: | :---: | :---: |
| Aluminum | $1 \mathrm{NC}-1 \mathrm{NO}$ | Gold plate | $0.5-14 \mathrm{NPT}$ | BXE3E |
| Stainless steel | $1 \mathrm{NC}-1 \mathrm{NO}$ | Silver | $0.5-14 \mathrm{NPT}$ | BX2E3K |
| Stainless steel | $1 \mathrm{NC}-1 \mathrm{NO}$ | Gold plate | $0.5-14 \mathrm{NPT}$ | BX2E3E |


| Aluminum | 2NC-2NO | Silver | $0.75-14 \mathrm{NPT}$ | BXE4L |
| :--- | :--- | :--- | :--- | :--- |

Aluminum $\quad 2 N C-2 N O \quad$ Gold plate $0.75-14$ NPT BXE4S

BXE /BX2F• Side Roller Plunger

| Housing Material | Contacts <br> (snap-action) | Contact Material | Conduit | Listing |
| :---: | :---: | :---: | :---: | :---: |
| Aluminum | 1NC-1NO | Silver | $0.5-14$ NPT | BXF3K |
| Aluminum | 1NC-1NO | Gold plate | $0.5-14$ NPT | BXF3E |
| Stainless steel | 1NC-1NO | Silver | $0.5-14$ NPT | BX2F3K |
| Stainless steel | 1NC-1NO | Gold plate | $0.5-14$ NPT | BX2F3E |
| Aluminum | 2NC-2NO | Silver | $0.75-14 \mathrm{NPT}$ | BXF4L |
| Aluminum | 2NC-2NO | Gold plate | $0.75-14 \mathrm{NPT}$ | BXF4S |

Contact closed ■ Contact open $\square$
NOTE: Same polarity each pole.

* Operating temperature range for standard fluorosilicone sealed switch. For optional fluorocarbon sealed switch, see temperature table, page 8. To order a fluorocarbon sealed version, insert the additional letter "C" in the standard catalog listing, as follows. The BXA3K limit switch is changed to a BXAC3K limit switch.

MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES


## MICRO SWITCH HAZARDOUS AREA SWITCHES

 BX/BX2 SERIES| REPLACEMENT CONTACT BLOCKS |  |
| :--- | :--- |
| Circuitry | Replacement Contact Block |
| Single pole | LSXZ3K |
| Double pole | LSXZ3L |
| Sequence <br> or central <br> neutral | LSXZ3M |

REPLACEMENT HEADS for STANDARD
BX Switches
Switch Type Catalog Listing/Operating Head Only

| BXA | LSZ1AB |
| :--- | :--- |
| BXB | LSZ1BB |
| BXC | LSXZ1CB |
| BXD | LSXZ1DB |
| BXE | LSXZ1EB |
| BXF | LSXZ1FB |
| BXH | LSZ1HB |
| BXJ | LSZ1JBGA |
| BXK | LSXZ1KBHA |
| BXL | LSZ1LB |
| BXM | LSZ1MB |
| BXP | LSZ1PB |
| $B X R ~$ | LSZ1RB |
| BXV | LSXZ1VB |
| $B X W$ | LSXZ1WB |

## ASSEMBLY MODIFICATIONS

Momentary action rotary switches can be furnished in other than the normal assembled conditions. To specify modifications, add the numbers shown below to the catalog listings. Modification number suffixes are:
1 Clockwise actuation only
2 Counterclockwise actuation only
3 Shaft to right of switch front
4 Shaft to left of switch front
5 Shaft to back of switch

## For example,

Catalog listing BXA3K23 is a BXA3K switch adjusted for counterclockwise actuation only. The operating shaft is to the right side of the switch when viewing it from the front (label side).
No lever.

## PLUNGER ASSEMBLY MODIFICATIONS

Add the following modification numbers to the catalog listing in the plunger switch:
3 Side plunger to right of switch front
4 Side plunger to left of switch front
5 Side plunger to back of switch
6 Roller on top plungers perpendicular to mounting surface
8 Roller on side plungers in vertical position

## For example,

Catalog listing BXF3K3 is a BXF3K switch with the side roller plunger to the right side.

## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

Figure 3. MICRO SWITCH BX Series Side Rotary Product Dimensions• mm [in]
Side Rotary - Head Codes: A, H, L, M, N, P, Q, AND R


Figure 4. MICRO SWITCH BX Series Wobble Stick,

## Head Code J•mm [in]



Figure 5. MICRO SWITCH BX SERIES Cat Whisker Wobble, Head Code K • mm [in]


## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

Figure 6. MICRO SWITCH BX Series Top Rotary, Head Code B • mm [in]


Figure 8. MICRO SWITCH BX Series Top Roller Plunger, Head Code D • mm [in]


Figure 11. MICRO SWITCH BX Series Adjustable Top Pin Plunger, Head Code V•mm [in]


Figure 7. MICRO SWITCH BX Series Top Pin Plunger, Head Code C • mm [in]


Figure 9. MICRO SWITCH BX Series Side Plunger, Head Code E•mm [in]


Figure 10. MICRO SWITCH BX Series Side Roller Plunger, Head Code F•mm [in]


Figure 12. MICRO SWITCH BX Series Adjustable Side Pin Plunger, Head Code W • mm [in]


## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

Figure 13. MICRO SWITCH BX2 Series Side Rotary Product Dimensions • mm [in] Side Rotary - Head Codes: A, P, AND R


Figure 14. MICRO SWITCH BX2 Series Top Plunger Product Dimensions • mm [in] Top Plunger - Head Codes: C and D


## MICRO SWITCH HAZARDOUS AREA SWITCHES BX/BX2 SERIES

Figure 15. MICRO SWITCH BX2 Series Side Plunger Product Dimensions • mm [in] Side Plunger - Head Codes: E and F


## ADDITIONAL MATERIALS

The following associated literature is available on the Honeywell web site at sps.honeywell.com/ast:

- Product installation instructions
- Product range guide
- Hazardous area product brochure
- Product application-specific information
- Application Note: Gas Recovery Unit and Other O\&G Drilling Applications
- Application Note: Pipeline Pig Passage Detection/Indicator Applications
- Application Note: Electronic Sensors and Electromechanical Switches in Valves and Flow Meters
- Application Note: Sensors and Switches Used in Valve Actuators and Valve Positioners
- Application Note: Sensors and Switches for Industrial Manual Process Valves
- Sensors and Switches in Oil Rig Applications


## WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

## $\triangle$ WARNING <br> PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.
Failure to comply with these instructions could result in death or serious injury.

## $\triangle$ WARNING MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.
Failure to comply with these instructions could result in death or serious injury.


## FOR MORE INFORMATION

Honeywell Advanced Sensing
Technologies services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or the nearest Authorized Distributor, visit our website or call:

| USA/Canada | +13026134491 |
| :--- | :--- |
| Latin America | +13058058188 |
| Europe | +441344238258 |
| Japan | +81 (0) 3-6730-7152 |
| Singapore | +6563552828 |
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[^0]:    ${ }^{1}$ ATEX, UKEX \& IEC Ex: II 2 GD ; Ex db IIC T6 Gb; Ex tb IIIC T85 ${ }^{\circ} \mathrm{C}$ Db; Ta $-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ or $-12{ }^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ (dependent on seal material)
    ${ }^{2}$ NEPSI Ex: GYJ111016
    ${ }^{3}$ CSA, cUL, UL: NEMA 7 (Gas) Div $1 \& 2$, Class I, Groups B, C, \& D; NEMA 9 (Dust) Div $1 \& 2$, Class II, Groups E, F, \& G

[^1]:    * Non-sparking rollers and actuators must be used in hazardous areas.
    ** May require orientation of switch and lever to enable gravity to help restore switch's free position.

[^2]:    * May require orientation of switch and lever to enable gravity to help restore switch to free position.

