## MICRO SWITCH" Hazardous Location Limit Switches - EX Series

The smallest UL-listed housing available for use in hazardous locations. The compact size allow for multiple applications such as explosive gas/dust environments or valve and valve actuator.

| Stock No. | Mfr.'s <br> Type | Description | O.F. | P.T. (Inches) | $\begin{gathered} \text { D. T. } \\ \text { (Inches) } \end{gathered}$ | O.T. | EACH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 1-5 | 6-14 | 15-24 | 25+ |
| 70120103 | EX-AR | SPDT, Roller Lever, CW Actuation | 0.50-1.25 lbs. | 0.249 | 0.007 | $90^{\circ}$ | 200.46 | 191.50 | 183.30 | 173.49 |
| 70120104 | EX-Q | SPDT, Pin Plunger | 3.0 lbs . | 0.078 | 0.004 | 0.188" | 211.64 | 202.16 | 193.49 | 185.54 |
| 70119222 | EX-AR20 | SPDT, No Lever | 31.25 "-0z. | 0.219 | 0.007 | $90^{\circ}$ | 228.26 | 217.90 | 208.49 | 199.79 |
| 70119223 | EX-AR68 | SPDT, Side Rotary | $0.50-1.25 \mathrm{lbs}$. | 0.219 | 0.007 | $90^{\circ}$ | 246.01 | 234.86 | 224.66 | 215.32 |
| 70119224 | EX-AR800 | SPDT, Side Rotary | $0.50-1.25 \mathrm{lbs}$. | 0.219 | 0.007 | $90^{\circ}$ | 265.30 | 253.56 | 242.82 | 232.95 |
| 70118618 | EX-AR30 | SPDT, CCW Roller | 2.5 lbs. | 0.065 | 0.007 | $25^{\circ}$ | 216.43 | 201.72 | 190.24 | 179.38 |
| 70119225 | EX-N15 | SPDT, Top Plunger | 0.75-2.00 lbs. | 0.078 | 0.004 | - | 227.59 | 218.27 | 209.62 | 201.69 |
| 70119226 | EXA-AR | SPDT, Side Rotary | $0.75-2.00 \mathrm{lbs}$. | 0.219 | 0.012 | $25^{\circ}$ | 212.83 | 204.06 | 195.95 |  |
| 70119227 | EXA-Q | SPDT, Top Plunger | 2.0 lbs. | 0.050 | 0.009 | - | 219.79 | 210.70 | 202.36 | 194.08 |
| 70119229 | EXD-AR-3 | SPDT, CCW Roller | $0.5-1.5 \mathrm{lb}$. | 0.250 | 0.109 | $25^{\circ}$ | 315.91 | 300.87 | 287.18 | 274.74 |
| 70119230 | EXD-Q-3 | DPDT, Top Plunger | 3.0 lbs. | 0.219 | 0.012 | $25^{\circ}$ | 315.91 | 302.06 | 289.38 | 277.72 |



EX-AR


EX-Q

Features

- Non-Sparking Actuators
- Mounts from Four Sides
- Roller Arm Adjustable Through $360^{\circ}$
- ATEX Certified II 2GE EXd11B+H2 T6, IFCE Certified


## Specifications

10-20 A @ 125, 250, 480 VAC
-1/2 A @ 125 VDC, $1 / 4$ A @ 250 VDC

- 1/8 HP @ 125 VAC, $1 / 4$ HP @ 250 VAC
- UL Recognized, File \#E14274

Sealing: NEMA 1, 7 (Class I DIV I Groups C, D), 9 (Class I DIV I Groups E, F G), (DIV II Groups C, D)

- Operating Temperature: $-40^{\circ} \mathrm{C}$ to $71^{\circ} \mathrm{C}\left(-90^{\circ} \mathrm{F}\right.$ to $\left.160^{\circ} \mathrm{F}\right)$


## MICRO SWITCH" Hazardous Location Limit Switches — LSX Series

LSX switches are for use either indoors or outdoors in hazardous atmospheres as they are a completely sealed explosion-proof device. An optional mounting plate provides the same tracking and mounting as the standard HDLS. The majority of HDLS operating heads and circuitry options are available on the LSX. Standard HDLS evers are used, but because of explosion-proof requirements, only nylon rollers or other non-sparking material can be selected. Plunger and cat whisker types listed in the LSX order guide are of non-sparking material. Application proven HDLS head seals are retained to seal the top of the LSX. The circular cover on the front is easily unscrewed to expose the switching elements for wiring or replacement. A screwdriver or bar used on the wrenching lugs extending from the front of the cover allows easy removal or tightening. An o-ring seal is located between the housing and cover. The LSX withstands pressure of an internal explosion and cools the exploding gases below the kindling temperature of the explosive atmosphere. Flame paths are provided by the cover-housing threads and an extended plunger between the switch cavity and head.

| Stock No. | Mfr.'s Type | Head Style Actuator | Conduit | Contact Form | 0.F. | P.T. | D. T. | 0.T. | EACH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | 1-5 | 6-14 | 15-24 | 25+ |
| 70120043 | LSXA3K | Side Rotary | "-14 NPT | SPDT | 0.45 Nm | $15^{\circ}$ | $5^{\circ}$ | $60^{\circ}$ | 183.56 | 175.45 | 168.02 | 161.20 |
| 70118674 | LSXA4L | Side Rotary | "-14 NPT | DPDT | 0.45 Nm | $15^{\circ}$ | $7^{\circ}$ | $60^{\circ}$ | 238.60 | 227.41 | 217.25 | 207.91 |
| 70118675 | LSXM4N | Side Rotary | "-14 NPT | DPDT, Center Neutral | 0.45 Nm | $18^{\circ}$ | $10^{\circ}$ | $57^{\circ}$ | 241.03 | 230.86 | 221.14 | 211.80 |
| 70119232 | LSXC4L | Top Plunger | "-14 NPT | DPDT | 17.8 N | 0.070" | 0.020" | 0.190" | 278.96 | 265.93 | 254.06 | 243.20 |
| 70119234 | LSXV7L | Top Plunger | "-14 NPT | DPDT | 17.8 N |  |  |  | 222.13 | 211.75 | 202.30 | 193.66 |
| 70119235 | LSXYNB4L | Side Rotary | "-14 NPT | DPDT | 0.45 Nm | $65^{\circ}$ | $35^{\circ}$ | $20^{\circ}$ | 302.20 | 288.08 | 275.22 | 263.46 |
| 70119497 | LSXP7L | Side Rotary | "-14 NPT | DPDT | 0.45 Nm | $9^{\circ}$ | $4^{\circ}$ | $66^{\circ}$ | 199.36 | 191.68 | 186.13 | 180.88 |

Features
Electrical: 10 Amp Therma

- Single Pole: AC15, A600; DC13, R300

Double Pole: AC15, B600; DC13, R300

- Variety of Heads and Non-Sparking Actuators

Field Adjustability Matches Switch to Application

- Momentary, Maintained, or Center Neutral Action

Choice of Silver or Gold Contacts
$1 / 2$ or $3 / 4$ Inch Conduit Opening
UL Listed (File \#E61730) and CSA Certified (File \#LR57327)
NEMA/UL 1, 3, 4, 6, 7 (Class 1, Division 1 and 2) Groups B, C, D, 9
(Class 2, Division H2) Groups E, F, G, 13
Operating Temperature: $-12^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}\left(-10^{\circ} \mathrm{F}\right.$ to $\left.250^{\circ} \mathrm{F}\right)$ Optional $-40^{\circ} \mathrm{C}\left(90^{\circ} \mathrm{F}\right)$

## MICRO SWITCH" Hazardous Location Limit Switches - BX Series

The BX Series limit switch is similar to the LSX Series except it carries ATEX certification which is required for European applications. These enclosures also meet the European Hazardous Locations Designation: EExd IIC T6 category II 2 GD, SIRA 00ATEX 1037X. The entire series BX complies with the European Directive on Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres (94/9/EC) commonly referred to as the ATEX Directive. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN50014 1997 and EN50018 1994. BX products with conduit types $1 / 2-14$ NPT $3 / 4-14$ NPT also meet the North American Hazardous Locations Designation: Class I, Groups B, C and D; Class II, Groups E, F and G comply with UL Standard: UL 894, CSA Standard: C22.2 No. 25-1966, C22.2 No. 30-M1986.

## Features

UL, CSA, ATEXv and IEC EX

- Sealing - Applicable Portions of IP67 and NEMA 1, 3, 4, 6, 7, 9 and 13

Durable Metal Housing Provides Enhanced Corrosion Resistance*

- 10 A Thermal

Tracking Interchangeability with MICRO SWITCH ML-E1 and HDLS

- Gold Contacts Available for Low Energy Switching
- Electrical Features Similar to LSX Series

Fluorocarbon Sealing Available
$-40^{\circ} \mathrm{C}$ Standard Low Temperature

- Ideal for Petrochemical and Marine Environment
*The standard BX listings have an aluminum die cast housing. BX2 listings are 316 L stainless steel.

| Stock No. | Mfr.'s Type | Head Style Actuator | Conduit | Contact Form | O.F. | P.T. | D. T. | 0.T. | EACH |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | 1-5 | 6-14 | 15-24 | 25+ |
| 70118676 | BXA3K | Side Rotary | 1/2"-14 NPT | SPDT | 0.45 N | $15^{\circ}$ | $7^{\circ}$ | $60^{\circ}$ | 217.37 | 207.40 | 198.27 | 189.97 |
| 70118677 | BXA4L | Side Rotary | 3/4"-14 NPT | DPDT | 0.45 N | $15^{\circ}$ | $7^{\circ}$ | $60^{\circ}$ | 269.94 | 252.35 | 241.85 | 231.88 |
| 70119432 | BX2C4L | Top Plunger | $3 / 4{ }^{\text {"-1 }}$ - 4 NPT | DPDT | 0.45 N | 1.78 mm | 0.51 mm | 4.83 mm | 786.77 | 745.35 | 703.94 | 673.36 |
| 70119433 | BX2P4L | Side Rotary | 3/4"-14 NPT | DPDT | 0.45 N | $9^{\circ}$ | $4^{\circ}$ | $68^{\circ}$ | 900.54 | 853.12 | 805.73 | 770.73 |



## MICRO SWITCH"' Hazardous Location Limit Switches — CX Series

CX switches are built especially for outdoor use in hazardous atmospheres. These enclosures are constructed to withstand the pressure of an internal explosion. Flame paths cool the exploded gases to a point less than the lowest safe operating temperature of the surrounding gas. O-ring seals make the enclosure weatherproof but are outside of required flame paths so explosion proof requirements are maintained.

Features

- Sealing - Applicable Portions of NEMA 1, 3, 4, 4x, 6, 6p, 7, 9 and 13

Rugged Cast Aluminum Housing Accepts 3/4"-14 NPT Conduit

- Watertight and Dust-Tight for Outdoor Use

4-20 mA Analog Output Available
UL Listed, File \#E14274
Analog UL File \#E68247
$\begin{aligned} & \text { - } \text { Tools (All Switches Individually) } \\ & \text { - Rotary Types Convert in Seconds }\end{aligned}$
CSA Certified, File \#LR57324
Two-Way Operation


