Honeywell

MICRO SWITCH™ BX/BX2 Series

Hazardous Area Switches

DESCRIPTION

The MICRO SWITCH[™] BX/BX2 Series is ideal for outdoor use or in adverse environments where a combination of explosion proof plus sealing requirements are needed. To comply with explosion-proof requirements the BX/BX2 has flame paths within the housing, which cool exploding gases below the ignition temperature before they reach explosive gases surrounding the housing. Flame paths on the BX/BX2 are (1) an extended plunger between the switch cavity and head and (2) the cover-housing threads on the front of the switch.

While the MICRO SWITCH[™] BX Series features an aluminum housing, the MICRO SWITCH[™] BX2 Series has a 316L stainless steel housing that provides enhanced corrosion resistance 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.

These products are weather sealed for outdoor use and designed for explosive gas/dust environments. The BX/BX2 Series is directly interchangeable with the LSX. Adapter plate not required. All heads are field adjustable at 90° increments.

Honeywell explosion-proof switches are designed specifically for use in hazardous location applications. The BX/BX2 enclosure is sealed for protection against corrosion, water, dust and oil as defined in IEC60529. The temperature

FEATURES

- BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex
- BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex
- BX2: UL, cUL, ATEX IEC Ex
- BX/BX2: IP67; NEMA 1, 3, 4, 6, 13
- BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)
- BX/BX2: II 2 G; Ex d IIC T6 II 2 D; Ex d tD A21 T85°C
- Choice of housing: aluminum or 316L stainless steel
- · Diverse conduit selection for wide range of applications
- Variety of heads and non-sparking actuators
- 10 A continuous carry electrical rating
- · Choice of silver or gold contacts
- · External and internal grounding screw
- Fluorocarbon and low-temperature sealing

rating for these products depends upon the seal material used. Products using a fluorosilicone seal have a rating of -40 °C to 70 °C [-40 °F to 158 °F]. Products using a fluorocarbon seal have a rating of -12 °C [10 °F] to 70 °C [158 °F]. These enclosures meet Ex d IIC T6, Ta -40 °C to 70 °C and Ta -12 °C to 70 °C, respectively. As well as Ex d tD A21 IP67 T85 °C. SIRA 00ATEX1037X and IECEx SIR 07.0102X.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2006, EN 60079-1:2007, EN 61241-0:2004, EN 61241-0:2006, IEC 60079-0:2004 4th Ed., IEC 60079-0:2007 6th Ed., IEC 61241-0:2004 1st Ed., and IEC 61241-1:2004 1st Ed. The maximum contruction gap (ic) is less than that required by Table 2 of EN/IEC60079-1:2007, clause 5.2.2 as detailed below.

Flame path	Max. gap	Comment
Push rod & bearing	0,076 mm	Cylindrical spigot joint

All BX2 conduit types and BX products with conduit types 1/2-14NPT, 3/4-14NPT also meet the North American Hazardous Locations Designation: NEMA 7 - Class I, Groups B, C and D; NEMA 9 - Class II, Groups E, F and G and comply with UL Standard: UL 894.

POTENTIAL APPLICATIONS

- Control valves and actuators
- Offshore drilling
- Grain elevators
- Petrochemical plants
- Chemical plants
- Waste treatment
- Paint booths
- Mining conveyors
- Pulp and paper coating
- Hazardous waste handling

MICRO SWITCH™ BX/BX2 Series

SELECTION GUIDE

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Features					
	BX4A3K	BX24A3K	BX4A3K-1A	BX24A3K-1A	BX24P4L
Description	Side rotary, m lever, 11	-	-	omentary, with NO/1NC	Side rotary, momentary, low pre- travel, 2NO/2NC
Actuator	Lever not inclue lever require		mounted r	h lever with front nylon roller (.25 in wide)	Lever not included - reference lever required accessory
Conduit Thread	20 mm	conduit	20 mm	conduit	20 mm conduit
Circuitry	1NC 1NO singl throw, snap-action	•	U U	le-pole double- on, double-break	2NO 2 NC double-pole double- throw, snap-action, double-break
Approvals	ATEX, IEC Ex	UL, cUL, ATEX IEC Ex	ATEX, IEC Ex	UL, cUL, ATEX IEC Ex	UL, cUL, ATEX, IEC Ex
Actuator	Side i	rotary	Side	rotary	Side rotary
Pretravel	15	5°	1:	5°	9°
Overtravel	60)°	6	D°	68°
Differential Travel	5	0	5	0	4°
Operating Torque			0,45 N m max	. [4 in-lb max.]	
UL File #			-		
CSA File #	-	-	-	_	_
Sealing	IP67; NEMA 1, 3, 4, 6, 13	IP67; NEMA 1, 3, 4, 6, 7, 9, 13	IP67; NEMA 1, 3, 4, 6, 13	IP67; NEMA 1, 3, 4, 6, 7, 9, 13	IP67; NEMA 1, 3, 4, 6, 7, 9, 13
Product Type		Weather-seale	ed, explosion-proc	of limit switches/IE	C Ex approvals
Ampere Rating			10 A (1	⁻ hermal)	
Supply Voltage			600 Vac and	250 Vdc max.	
Operating			-40 °C to 70 °C	-40 °F to 158 °F]	
Temperature Range					
Housing Material		Aluminum	(BX Series); 316L	Stainless Steel (BX2 Series)
Housing Type	BX non plug-in				
Sealed	Explosion-proof				
Availability	Global				
Agency Approvals and Standards	 BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex BX2: UL, cUL, ATEX IEC Ex BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G BX/BX2: II 2 G; Ex d IIC T6 • II 2 D; Ex d tD A21 T85°C) 				

Hazardous Area Switches

SELECTION GUIDE

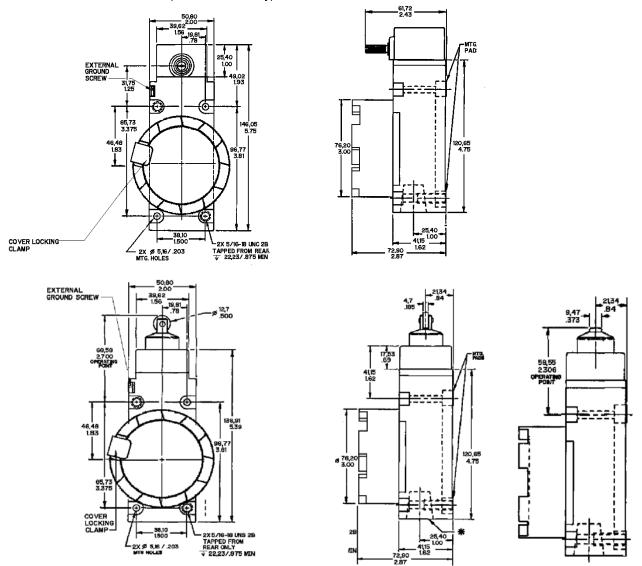
Features					
	BX4D3K	BX4C3K	BX24C4L	BXA4L	
Description	Top roller plunger, 1NO/1NC	Top plunger plain, 1NC/1NC	Top plunger plain, 2NO/2NC	Side rotary, momentary, no lever, 2NO/2NC	
Actuator	N/A	N	I/A	Lever not included - reference lever required accessory	
Conduit Thread	20mm conduit	20 mm	conduit	3/4 in - 14NPT conduit	
Circuitry	1NC 1NO single-pole double- throw, snap-action, double- break	1NC 1NO single-pole double-throw, snap-action, double-break	2NO 2 NC double-pole double-throw, snap-action, double-break	2NC 2NO single-pole double- throw, snap-Action, double- break	
Approvals	ATEX, IEC Ex	ATEX, IEC Ex	UL, cUL, ATEX IEC Ex	UL, CSA, ATEX, IEC Ex	
Actuator	Top roller plunger	Тор р	olunger	Side rotary	
Pretravel	1,78 mm [0.070 in]	1,78 mm	[0.070 in]	15°	
Overtravel	4,83 mm [0.190 in]	4,83 mm	[0.190 in]	60°	
Differential Travel	0,38 mm [0.015 in]	0,38 mm [0.015 in]	0,51 mm [0.020 in]	7°	
Operating Position	68.6 mm ± 1 mm [2.700 in ± 0.040 in]		± 0.76 mm ± 0.030 in]	_	
Operating Torque	-		_	0,45 N m max. [4 in-lb max.]	
Operating Force	0,45 N max. [4 lb max.]	0,45 N max	<. [4 lb max.]	_	
UL File#	_		_	E61730	
CSA File #	_		_	LR57327	
Sealing	IP67; NEMA 1, 3, 4, 6, 13	IP67; NEMA 1, 3, 4, 6, 13	IP67; NEMA 1, 3, 4, 6, 7, 9, 13	IP67; NEMA 1, 3, 4, 6, 7, 9, 13	
Product Type	Weather-seale	ed, explosion-proc	of limit switches/IE0	C Ex approvals	
Ampere Rating		,	Thermal)		
Supply Voltage			250 Vdc max.		
Operating Temperature Range	-40 °C to 70 °C [-40 °F to 158 °F]				
Housing Material	Aluminum (BX Series); 316L Stainless Steel (BX2 Series)				
Housing Type	BX non-plug-in				
Sealed	Explosion-proof				
Availability			obal		
Agency Approvals and Standards	 BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex BX2: UL, cUL, ATEX IEC Ex BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G) 				
	BX/BX2: II 2 G; Ex d IIC T6	• II 2 D; Ex d tD A	21 T85°C		

MICRO SWITCH™ BX/BX2 Series

SELECTION GUIDE

Approvals ATEX, IEC Ex IEC Ex IEC	SELECTION GUIDE						
Description Side rotary, momentary, low pre- travel, 2NO/2NC Side rotary, momentary, no lever, 1NO/1NC Top plunger plain, 2NO/2NC Actuator Lever not included - reference lever required accessory Ivantice N/A Conduit Thread 3/4 in - 14NPT conduit 1/2 in - 14NPT conduit 3/4 in - 14NPT conduit Circuitry 2NO 2 NC double-pole double- throw, snap-action, double-break IVN (NO single-pole double- throw, snap-action, double-break VIX (UL, CIX, ATEX Approvals ATEX, IEC EX IEC Ex IEC EX ATEX, IEC EX IEC EX Actuator Side rotary Side rotary Top plunger UL, CIA, ATEX Operating Position - - 5/2 0.51 mm (0.020 in) Operating Force - - 0.45 N max. [4 in-b max.] UL File # - InF3/327 - - Gealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 UL File # - InF3/327 - - Gealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 <th>Features</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Features						
Description travel, 2NO/2NC lever, 1NO/1NC Top plunger plain, 2NO/2NC Actuator Lever not included - reference Lever not included - reference N/A Conduit Thread 3/4 in - 14NPT conduit 1/2 in - 14NPT conduit 3/4 in - 14NPT conduit 3/4 in - 14NPT conduit Circuitry throw, snap-action, double-break throw, snap-action, double-break throw, snap-action, double-break UL, CSA, UL, CUL, ATEX UL, CSA, VL, CEX UL, CSA, VL, CEX UL, CL, ATEX UL, CSA, VL, CEX UL, CL, ATEX UL, CSA, VL, CEX UL, CL, ATEX IEC Ex Actuator Side rotary Side rotary Tog plunger Tog plunger IEC Ex ATEX, IEC Ex IEC Ex ATEX, IEC X IEC Ex ATEX, IEC		BXP4L	BX2P4L	ВХАЗК	BX2A3K	BXC4L	BX2C4L
Actuator lever required accessory Iever required accessory N/A Conduit Thread 3/4 in - 14NPT conduit 1/2 in - 14NPT conduit 3/4 in - 14NPT conduit Circuitry 2NO 2 NC double-pole double- throw, snap-action, double-break 1NC 1NO single-pole double- throw, snap-action, double-break 2NO 2 NC double-break Approvals UL, CSA, ATEX, IEC Ex UL, CCA, IEC Ex UL, CCA, ATEX, IEC Ex UL, CL, ATEX Actuator Side rotary Side rotary Top plunger Pretravel 9° 15° 1.78 mm [0.070 in] Overtravel 68° 60° 4.83 mm [0.190 in] Differential Travel 4° 5° 0,51 mm [0.020 in] Operating Position - - - Operating Force - - - Operating Force - - - CSA File # - LR57327 - - Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Product Type Weather-sealed, explosion-proof limit switches/ICC Ex approvals - Ampere Rating -00 C to 70 °C [-40 °F to 158 °F]	Description	-		-	-	Top plunger p	lain, 2NO/2NC
Circuitry 2NO 2 NC double-pole double- throw, snap-action, double-break 1NC 1NO single-pole double- throw, snap-action, double-break 2NO 2 NC double-pole double- throw, snap-action, double-break Approvals UL, CSA, ATEX, IEC Ex UL, CSA, IEC Ex UL, CSA, IEC Ex UL, CSA, IEC Ex UL, CSA, ATEX, IEC Ex UL, CSA, IEC Ex UL, CSA, ATEX, IEC Ex UL, CSA, ATEX, IEC Ex UL, CSA, IEC Ex UL, CSA, ATEX, IEC Ex ILC Ex ATEX, IEC Ex IEC Ex Actuator Side rotary Side rotary Top plunger Top plunger Top plunger Pretravel 9° 15° 1,78 mm [0.070 in] Ovortary Top plunger Operating Position - - 58.5 mm ± 0.76 mm 0.25 mm at 0.76 mm Operating Force - - - 0.45 N max.] II max.] Operating Force - - - - - <	Actuator					Ν	/A
Circuitry throw, snap-action, double-break throw, snap-action, double-break throw, snap-action, double-break Approvals UL, CSA, ATEX, IEC Ex UL, CUL, ATEX IEC Ex UL, CSA, ATEX, IEC Ex UL, CSA, IEC Ex UL, CUL, ATEX Actuator Side rotary Side rotary Side rotary Top plunger Pretravel 9° 15° 1.78 mm [0.070 in] Overtravel 66° 60° 4.83 mm [0.190 in] Differential Travel 4° 5° 0.51 mm [0.020 in] Operating Position – – 58.5 mm ± 0.76 mm [0.020 in] Operating Force – – 0.45 N max. [4 ib max.] UL File # – LR57327 – – CSA File # – LR57327 – – Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Product Type Weather-sealed, explosion-proof limit switches/IEC Ex approvals Ampere Rating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. Operating Tope BX (n/2 + 4 NPT, 3/4 + 14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class 1, Groups B, C, & D Div 1, Class 1, Groups E, F, & 6) </th <th>Conduit Thread</th> <th>3/4 in - 14N</th> <th>IPT conduit</th> <th>1/2 in - 14N</th> <th>IPT conduit</th> <th>3/4 in - 14N</th> <th>NPT conduit</th>	Conduit Thread	3/4 in - 14N	IPT conduit	1/2 in - 14N	IPT conduit	3/4 in - 14N	NPT conduit
Approvals UL, CSA, ATEX, IEC Ex UL, cUL, ATEX IEC Ex UL, CSA, ATEX, IEC Ex UL, cUL, ATEX IEC Ex Actuator Side rotary Side rotary Top plunger Pretravel 9° 15° 1.78 mm [0.070 in] Overtravel 68° 60° 4.83 mm [0.190 in] Differential Travel (D.T.) 4° 5° 0.51 mm [0.020 in] Operating Position – – 58.5 mm ± 0.76 mm [2.305 in ± 0.030 in] Operating Force – – 0.45 N m ax. [4 in-lb max.] UL File # – E61730 – CSA File # – L657327 – Sealing IP67; NEMA 1.3, 4, 6, 7, 9, 13 IP67; NEMA 1.3, 4, 6, 7, 9, 13 Product Type Weather-sealed, explosion-proof limit switches/IEC Ex approvals Ampere Rating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. Operating Type BX (non plug-in Sealed	Circuitry			•	•		•
Pretravel 9° 15° 1,78 mm [0.070 in] Overtravel 68° 60° 4,83 mm [0.190 in] Differential Travel 4° 5° 0,51 mm [0.020 in] Operating Position - - 58.5 mm ± 0.76 mm Operating Force - 0,45 N m max. [4 in-lb max.] 0,45 N max. [4 lb max.] UL File # - E61730 - - CSA File # - LR57327 - - Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Product Type Ampere Rating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. Operating Type BX non plug-in Stanless Steel (BX2 Series) Housing Type BX non plug-in Sealed Sealed Explosion-proof Operating Force (O.F.) Operating Force (O.F.) 0,45 N max. [4 in lb max.] Availability Global Global	Approvals	UL, CSA,	UL, cUL, ATEX	UL, CSA,	UL, cUL, ATEX	UL, CSA,	UL, cUL, ATEX
Overtravel 68° 60° 4,83 mm [0.190 in] Differential Travel (D.T.) 4° 5° 0,51 mm [0.020 in] Operating Position - - 58.5 mm ± 0.76 mm [2.305 in ± 0.030 in] Operating Force - - 0,45 N m ax. [4 in-lb max.] UL File # - E61730 - CSA File # - LR57327 - Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Product Type Weather-sealed, explosion-proof limit switches/IEC Ex approvals - - Ampere Rating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. Operating Material Aluminum (BX Series); 316L Stainless Steel (BX2 Series) - Housing Material Aluminum (BX Series); 316L Stainless Steel (BX2 Series) - Housing Force (O.F.) 0,45 N max. [4 in lb max.] - Availability Global - - BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex - BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex BX (M20, PG13.5, or PF1/2 conduit): ATEX an	Actuator				-		
Differential Travel (D.T.) 4° 5° 0,51 mm [0.020 in] Operating Position - - 58.5 mm ± 0.76 mm [2.305 in ± 0.030 in] Operating Force - - 0,45 N max. [4 lin-lb max.] UL File # - 0,45 N m max. [4 lin-lb max.] UL File # - LR57327 - Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Product Type Weather-sealed, explosion-proof limit switches/IEC Ex approvals - - Ampere Rating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. Operating Temperature Range -40 °C to 70 °C [-40 °F to 158 °F] - Housing Material Aluminum (BX Series); 316L Stainless Steel (BX2 Series) - Housing Type BX non plug-in - - Sealed Explosion-proof - - - Availability Global - - - Housing Type BX non plug-in - - - Agency Approvals and Standards •		-				1,78 mm [0.070 in]	
(D.T.) 4° 5° 0,51 mm [0.020 in] Operating Position - - 58.5 mm ± 0.76 mm [2.305 in ± 0.030 in] Operating Force - - 0,45 N max. [4 in-lb max.] Operating Torque 0,45 N max. [4 in-lb max.] 0,45 N max. [4 lb max.] UL File # - E61730 - CSA File # - LR57327 - - Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Ampere Rating 10 A (Thermal) 1967; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Supply Voltage 600 Vac and 250 Vdc max. Operating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. Operating East 0.00 and 250 Vdc max. Operating -40 °C to 70 °C [-40 °F to 158 °F] Edusing Material Aluminum (BX Series); 316L Stainless Steel (BX2 Series) Housing Type BX (no plug-in Sealed East 0.00 al Operating Force (O.F.) 0,45 N max. [4 in lb max.] <th></th> <th>68</th> <th>8°</th> <th>6</th> <th>0°</th> <th colspan="2">4,83 mm [0.190 in]</th>		68	8°	6	0°	4,83 mm [0.190 in]	
Operating Position - - [2.305 in ± 0.030 in] Operating Force - 0,45 N max. [4 in-lb max.] UL File # - 0,45 N m max. [4 in-lb max.] UL File # - E61730 - CSA File # - LR57327 - - Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Product Type Weather-sealed, explosion-proof limit switches/IEC Ex approvals Ampere Rating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. Operating -40 °C to 70 °C [-40 °F to 158 °F] Housing Material Aluminum (BX Series); 316L Stainless Steel (BX2 Series) Housing Type Baeled Explosion-proof Operating Force (O.F.) 0,45 N max. [4 in lb max.] Availability Global Explosion-proof 0 Agency Approvals and Standards EX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex EX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex BX (H22:14 NPT, 3/4-14 NPT); UL, CSA, ATEX, IEC Ex EX (H22:14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)		4	<u>°</u>	5	0	0,51 mm [0.020 in]	
Operating Torque 0,45 N m max. [4 in-lb max.] UL File # - E61730 - - CSA File # - LR57327 - - Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Product Type Weather-sealed, explosion-proof limit switches/IEC Ex approvals Ampere Rating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. - - Operating -40 °C to 70 °C [-40 °F to 158 °F] - Housing Material Aluminum (BX Series); 316L Stainless Steel (BX2 Series) Housing Type BX non plug-in Sealed Explosion-proof Operating Force (O.F.) 0,45 N max. [4 in lb max.] Availability Global • BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)	Operating Position	-	-	-	-		
UL File # - E61730 - - CSA File # - LR57327 - - - Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Product Type Weather-sealed, explosion-proof limit switches/IEC Ex approvals Ampere Rating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. Operating -40 °C to 70 °C [-40 °F to 158 °F] Housing Material Aluminum (BX Series); 316L Stainless Steel (BX2 Series) Housing Type BX non plug-in Sealed Explosion-proof Operating Force (O.F.) 0,45 N max. [4 in lb max.] Availability Global • BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX2: IP67; NEMA 1, 3, 4, 6, 13 • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Cl	Operating Force	-	-	-	_	0,45 N max	. [4 lb max.]
CSA File # - LR57327 - - Sealing IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 IP67; NEMA 1, 3, 4, 6, 7, 9, 13 Product Type Weather-sealed, explosion-proof limit switches/IEC Ex approvals Ampere Rating 10 A (Thermal) Supply Voltage 600 Vac and 250 Vdc max. Operating -40 °C to 70 °C [-40 °F to 158 °F] Housing Material Aluminum (BX Series); 316L Stainless Steel (BX2 Series) Housing Type BX non plug-in Sealed Explosion-proof Operating Force (O.F.) 0,45 N max. [4 in lb max.] Availability Global • BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)					k. [4 in-lb max.]		
SealingIP67; NEMA 1, 3, 4, 6, 7, 9, 13IP67; NEMA 1, 3, 4, 6, 7, 9, 13IP67; NEMA 1, 3, 4, 6, 7, 9, 13Product TypeWeather-sealed, explosion-proof limit switches/IEC Ex approvalsAmpere Rating10 A (Thermal)Supply Voltage600 Vac and 250 Vdc max.Operating-40 °C to 70 °C [-40 °F to 158 °F]Housing MaterialAluminum (BX Series); 316L Stainless Steel (BX2 Series)Housing TypeBX non plug-inSealedExplosion-proofOperating Force (O.F.)0,45 N max. [4 in lb max.]AvailabilityGlobalAgency Approvals and Standards• BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)		-	-			-	-
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Supply Voltage 600 Vac and 250 Vdc max. Operating -40 °C to 70 °C [-40 °F to 158 °F] Housing Material Aluminum (BX Series); 316L Stainless Steel (BX2 Series) Housing Type BX non plug-in Sealed Explosion-proof Operating Force (O.F.) 0,45 N max. [4 in lb max.] Availability Global • BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)			Weather-seale	· · ·		C Ex approvals	
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Temperature Range-40 °C to 70 °C [-40 °F to 158 °F]Housing MaterialAluminum (BX Series); 316L Stainless Steel (BX2 Series)Housing TypeBX non plug-inSealedExplosion-proofOperating Force (O.F.)0,45 N max. [4 in lb max.]AvailabilityGlobalAgency Approvals and Standards• BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)				600 vac and	250 Vuc max.		
Housing MaterialAluminum (BX Series); 316L Stainless Steel (BX2 Series)Housing TypeBX non plug-inSealedExplosion-proofOperating Force (O.F.)0,45 N max. [4 in lb max.]AvailabilityGlobalAvailabilityBX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC ExBX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC ExBX2: UL, cUL, ATEX IEC ExBX2: UL, cUL, ATEX IEC ExBX(1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC ExBX(1/2-14 NPT, 3/4-14 NPT): OL, CSA, ATEX, IEC EX<				-40 °C to 70 °C	[-40 °F to 158 °F]		
Housing Type BX non plug-in Sealed Explosion-proof Operating Force (O.F.) 0,45 N max. [4 in lb max.] Availability Global A spency Approvals and Standards • BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)		Aluminum (BX Series): 316L Stainless Steel (BX2 Series)					
Operating Force (O.F.) 0,45 N max. [4 in lb max.] Availability Global Agency Approvals and Standards • BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)	-			· · ·		,	
Availability Global Agency Approvals and Standards BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex BX2: UL, cUL, ATEX IEC Ex BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G) 	Sealed						
Agency Approvals and Standards • BX (M20, PG13.5, or PF1/2 conduit): ATEX and IEC Ex • BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)	Operating Force (O.F.)	0,45 N max. [4 in lb max.]					
Agency Approvals and Standards• BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex • BX2: UL, cUL, ATEX IEC Ex • BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 • BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class II, Groups E, F, & G)	Availability						
• BX/BX2: II 2 G; Ex d IIC T6 • II 2 D; Ex d tD A21 T85°C		 BX (1/2-14 NPT, 3/4-14 NPT): UL, CSA, ATEX, IEC Ex BX2: UL, cUL, ATEX IEC Ex BX/BX2: IP67; NEMA 1, 3, 4, 6, 13 BX (1/2-14 NPT, 3/4-14 NPT) and BX2: NEMA 7, 9 (Div. 1, Class I, Groups B, C, & D Div 1, Class I Groups E, F, & G) 			D Div 1, Class II,		

Hazardous Area Switches

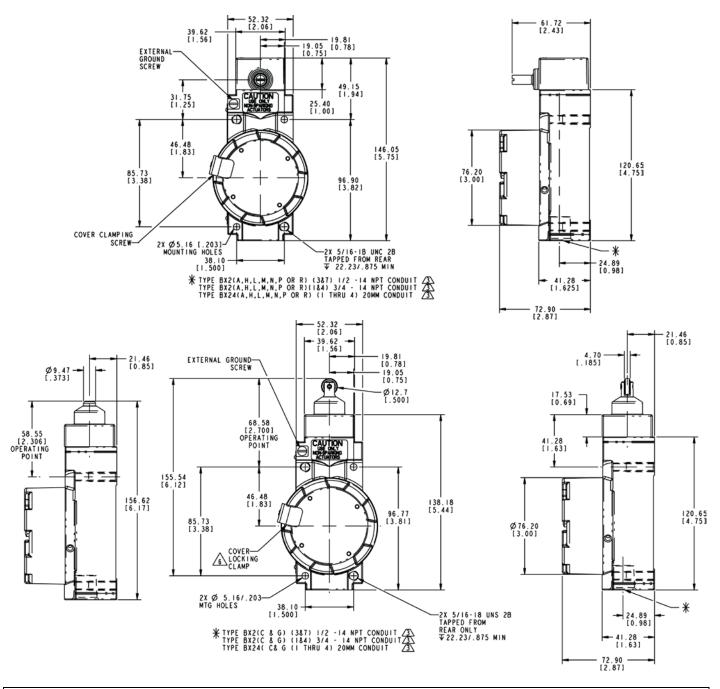


BX MOUNTING DIMENSIONS (For reference only) mm/in

Conduit sizes 1/2-14NPT, 3/4-14NPT, M20, PG13.5, PF1/2 are available for each switch type and carry ATEX and IEC Ex approvals. 1/2-14 NPT, 3/4-14 NPT, and M20 carry UL and CSA approvals Verify that the mating threaded fitting is identical with the conduit thread shown on the product nameplate

MICRO SWITCH™ BX/BX2 Series

BX2 MOUNTING DIMENSIONS (For reference only) mm/in



Conduit sizes 1/2-14NPT, 3/4-14NPT, M20, PG13.5, PF1/2 are available for each switch type and carry ATEX and IEC Ex approvals. 1/2-14 NPT, 3/4-14 NPT, and M20 carry UL and CSA approvals Verify that the mating threaded fitting is identical with the conduit thread shown on the product nameplate

Hazardous Area Switches

BX Levers – Required			Carl of the second		Carlo Carlo
Accessories	LSZ51A	LSZ51C	LSZ52C	LSZ52J	LSZ52K
Lever style	Roller – standard	Roller – standard	Roller – adjustable	Roller – adjustable	Roller – adjustable
Comment	Roller - standard; material: nylon; roller mounted on front of lever	Roller - standard; material: nylon; roller mounted on back of lever	Roller - adjustable; material: nylon; roller mounted on front of lever	Roller - adjustable; material: nylon; roller mounted on front of lever	Roller - adjustable; material: nylon; roller mounted on front of lever
Radius	38,1 mm [1.5 in]	38,1 mm [1.5 in]	38,1 mm to 88,9 mm [1.5 in to 3.5 in]	38,1 mm to 88,9 mm [1.5 in to 3.5 in]	38,1 mm to 88,9 mm [1.5 in to 3.5 in]
Diameter	19,05 mm [0.75 in]	19,05 mm [0.75 in]	19,05 mm [0.75 in]	25,4 mm [1.0 in]	38,1 mm [1.5 in]
Width	6,35 mm [0.25 in]	6,35 mm [0.25 in]	6,35 mm [0.25 in]	12,7 mm [0.5 in]	6,35 mm [0.25 in]
Product type	Lever				
Availability	Global				

BX Levers – Required	P.C.	P.C.	C.		
Accessories	LSZ53E	LSZ53S	LSZ54M	LSZ55A	LSZ55C
Lever style	Roller – yoke	Roller – yoke	Rod – standard	Roller with offset	Roller with offset
Comment	Roller - yoke;	Roller - yoke;	Rod - standard;	Roller - with offset;	Roller - with offset;
	material: nylon;	material: nylon;	material: aluminum;	material: nylon;	material: nylon;
	roller mounted on	roller mounted on	material: aluminum	roller mounted on	roller mounted on
	back-front of lever	back-back of lever		back of lever	front of lever
Radius	38,1 mm	38,1 mm	139,7 mm	38,1 mm	38,1 mm
	[1.5 in]	[1.5 in]	[5.5 in]	[1.5 in]	[1.5 in]
Diameter	19,05 mm	19,05 mm	-	19,05 mm	19,05 mm
	[0.75 in]	[0.75 in]		[0.75 in]	[0.75 in]
Width	6,35 mm	6,35 mm	-	6,35 mm	6,35 mm
	[0.25 in]	[0.25 in]		[0.25 in]	[0.25 in]
Product type	Lever				
Availability	Global				

BX2 Levers – Required Accessories	LS2Z51A	L2SZ51R	LS2Z52A	
Lever style	Non-sparking roller – standard	Non-sparking roller – standard	Non-sparking roller – adjustable	
Comment	Roller - standard; material: nylon; roller mounted on front of lever	Roller - standard; material: nylon; roller mounted on back of lever	Roller - adjustable; material: nylon; roller mounted on front of lever	
Radius	38,1 mm [1.5 in]	38,1 mm [1.5 in]	38,1 mm to 88,9 mm [1.5 in to 3.5 in]	
Diameter	19,05 mm [0.75 in]	40,38 mm [1.59 in]	19,05 mm [0.75 in]	
Width	12,7 mm [0.5 in]	6,35 mm [0.25 in]	6,35 mm [0.25 in]	
Product type		Lever		
Availability	Global			

A WARNING

IF USED IN APPLICATIONS CONCERNING HUMAN SAFETY

- Use only NC direct opening ("positive opening"/"positive break") contacts, identified by the symbol.
- Do NOT use flexible/adjustable actuators. Only use actuators designed for safety applications.
- Do NOT defeat, tamper, remove, or bypass this switch.
- Hazardous voltage, disconnect power before servicingStrictly adhere to all installation and maintenance
- instructions
 Consult with local safety agencies and their requirements when designing a machine-control link, interface and all control elements that affect safety.

Failure to comply with these instructions could result in death or serious injury.

OPENING PRODUCTS HAZARD

DO NOT OPEN these products when energized or in a flammable gas atmosphere.

Failure to comply with these instructions could result in death or serious injury.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order

acknowledgement 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 it 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 we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer 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 printing. However, we assume no responsibility for its use.

AWARNING IMPROPER CONDUIT THREAD USE

DO NOT USE any other conduit thread than the one identified on the product. Verify that the mating threaded fitting is identical with the conduit thread shown on the product nameplate.

Failure to comply with these instructions could result in death or serious injury.

A 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.

SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

E-mail: info.sc@honeywell.com

Internet: www.honeywell.com/sensing Phone and Fax:

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FIIU	пс	anu	ал.	
Acia	Da	oifio	165	635

Asia Pacific	+65 6355-2828
	+65 6445-3033 Fax
Europe	+44 (0) 1698 481481
	+44 (0) 1698 481676 Fax

- Latin America +1-305-805-8188
- +1-305-883-8257 Fax
- USA/Canada +1-800-537-6945 +1-815-235-6847
 - +1-815-235-6545 Fax

Sensing and Control Honeywell 1985 Douglas Drive North Golden Valley, MN 55422 www.honeywell.com/sensing

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