

## Explosion-Proof Limit Switches

## *BX Series*

### FEATURES

- UL, CSA and European approvals
- Sealing - applicable portions of IP67 and NEMA 1, 3, 4, 6, 7, 9, and 13
- Diverse conduit selection for wide range of applications
- Compatible with LSX
- Tracking interchangeability with MICRO SWITCH ML-E1 and HDLS
- Variety of heads and non-sparking actuators
- 10 A continuous carry electrical rating
- Choice of silver or gold contacts
- Internal grounding screw
- Fluorocarbon and low-temperature sealing

### TYPICAL 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



### DESCRIPTION

The BX 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 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 are (1) an extended plunger between the switch cavity and head and (2) the cover-housing threads on the front of the switch.

These products are weather sealed for outdoor use and designed for explosive gas/dust environments. They may be interchanged with HDLS products by using an adapter plate. All heads are field adjustable at 90° increments. Side rotary BX products can be adjusted for clockwise and counter-clockwise actuation.

Honeywell explosion-proof switches are designed specifically for use in hazardous location applications. The BX enclosure is sealed for protection against corrosion, water, dust, and oil as defined in NEMA 1, 3, 4, 6, 7, 9 and 13 and IP67 as defined in IEC 529.

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 1/2-14NPT, 3/4-14NPT also meet the North American Hazardous Locations Designation: Class I, Groups B, C, and D; Class II, Groups E, F, and G and comply with UL Standard: UL 894, CSA Standard: C22.2 No. 25-1966, C22.2 No. 30-M1986.

# General Purpose

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### SELECTION GUIDE

			
<b>Features</b>	<b>BX4A3K</b>	<b>BX4A3K-1A</b>	<b>BX4C3K</b>
<b>Actuator</b>	Lever Not Included - Reference Lever Required Accessory	1.5" Fixed Length Lever with front mounted Nylon Roller (.75" dia. x .25" wide)	N/A
<b>Termination Type</b>	20 mm conduit	20 mm conduit	20 mm conduit
<b>Circuitry</b>	1NC 1NO Single-Pole Double-Throw, Snap-Action, Double-Break	1NC 1NO Single-Pole Double-Throw, Snap-Action, Double-Break	1NC 1NO Single-Pole Double-Throw, Snap-Action, Double-Break
<b>Approvals</b>	CE Certified	CE Certified	CE Certified
<b>Actuator</b>	Side Rotary	Side Rotary	Top Plunger
<b>Pretravel (P.T.)</b>	15°	15°	1,78 mm [0.070 in]
<b>Overtravel (O.T)</b>	60°	60°	4,83 mm [0.190 in]
<b>Differential Travel (D.T.)</b>	7°	7°	0,51 mm [0.020 in]
<b>UL File #</b>	-	-	-
<b>CSA File #</b>	-	-	-
<b>Operating Position (O.P.)</b>	-	-	58.5 mm ± 0.76 mm [2.305 in ± 0.030 in]
<b>Sealing</b>	IP67, NEMA 1,3, 4, 6, 13	IP67, NEMA 1,3, 4, 6, 14	IP67, NEMA 1,3, 4, 6, 15
<b>Product Type</b>	Weather-Sealed, Explosion-Proof Limit Switches/European Approvals		
<b>Ampere Rating</b>	10 A (Thermal)		
<b>Supply Voltage</b>	600 Vac and 250 Vdc Maximum		
<b>Operating Temperature Range</b>	-40 °C to 70 °C [-40 °F to 158 °F]		
<b>Housing Material</b>	Zinc Die-Cast		
<b>Housing Type</b>	BX Non Plug-in		
<b>Sealed</b>	Explosion-proof		
<b>Operating Force (O.F.)</b>	0,45 N max. [4 in lb max.]		
<b>Availability</b>	Global		
<b>Agency Approvals and Standards</b>	EExd IIC T6 category II 2 GD, SIRA 00ATEX 1037X		
<b>Series Name</b>	BX Series		

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### SELECTION GUIDE

			
<b>Features</b>	<b>BX4D3K</b>	<b>BXA3K</b>	<b>BXA4L</b>
<b>Actuator</b>	N/A	Lever Not Included - Reference Lever Required Accessory	Lever Not Included - Reference Lever Required Accessory
<b>Termination Type</b>	20mm conduit	1/2 in - 14NPT conduit	3/4 in - 14NPT conduit
<b>Circuitry</b>	1NC 1NO Single-Pole Double-Throw, Snap-Action, Double-Break	1NC 1NO Single-Pole Double-Throw, Snap-Action, Double-Break	2NC 2NO Single-Pole Double-Throw, Snap-Action, Double-Break
<b>Approvals</b>	CE Certified	UL recognized, CSA Certified, CE Certified	UL recognized, CSA Certified, CE Certified
<b>Actuator</b>	Top Roller Plunger	Side Rotary	Side Rotary
<b>Pretravel (P.T.)</b>	1,78 mm [0.070 in]	15°	15°
<b>Overtravel (O.T.)</b>	4,83 mm [0.190 in]	60°	60°
<b>Differential Travel (D.T.)</b>	0,51 mm [0.020 in]	7°	7°
<b>UL File#</b>	-	E61730	E61730
<b>CSA File #</b>	-	LR57327	LR57327
<b>Operating Position (O.P.)</b>	68.6 mm ± 1 mm [2.700 in ± 0.040 in]	-	-
<b>Sealing</b>	IP67, NEMA 1,3, 4, 6, 16	IP67, NEMA 1,3, 4, 6, 7, 9, 13	IP67, NEMA 1,3, 4, 6, 7, 9, 13
<b>Product Type</b>	Weather-Sealed, Explosion-Proof Limit Switches/European Approvals		
<b>Ampere Rating</b>	10 A (Thermal)		
<b>Supply Voltage</b>	600 Vac and 250 Vdc Maximum		
<b>Operating Temperature Range</b>	-40 °C to 70 °C [-40 °F to 158 °F]		
<b>Housing Material</b>	Zinc Die-Cast		
<b>Housing Type</b>	BX Non Plug-in		
<b>Sealed</b>	Explosion-proof		
<b>Operating Force (O.F.)</b>	0,45 N max. [4 in lb max.]		
<b>Availability</b>	Global		
<b>Agency Approvals and Standards</b>	EExd IIC T6 category II 2 GD, SIRA 00ATEX 1037X		
<b>Series Name</b>	BX Series		

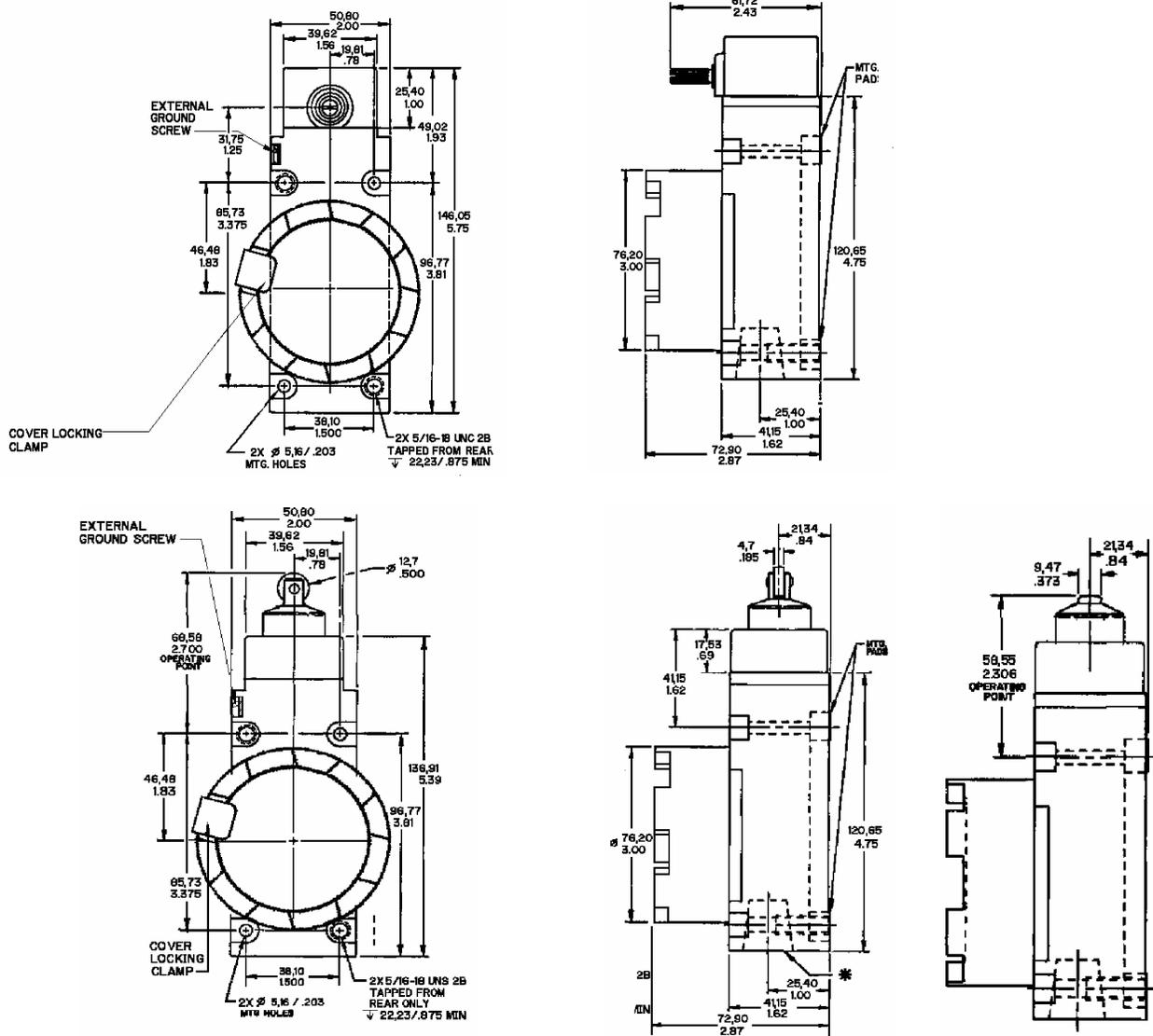
# General Purpose

## Explosion-Proof Limit Switches

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### MOUNTING DIMENSIONS (For reference only) mm/in

Fig. 1



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

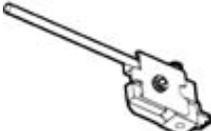
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### LEVERS – REQUIRED ACCESSORIES

					
	<b>LSZ51A</b>	<b>LSZ51C</b>	<b>LSZ52C</b>	<b>LSZ52J</b>	<b>LSZ52K</b>
<b>Lever Style</b>	Roller – Standard	Roller – Standard	Roller – Adjustable	Roller – Adjustable	Roller – Adjustable
<b>Comment</b>	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
<b>Radius</b>	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]
<b>Diameter</b>	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]
<b>Width</b>	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]
<b>Product Type</b>	Lever				
<b>Availability</b>	Global				

					
	<b>LSZ53E</b>	<b>LSZ53S</b>	<b>LSZ54M</b>	<b>LSZ55A</b>	<b>LSZ55C</b>
<b>Lever Style</b>	Roller – Yoke	Roller – Yoke	Rod – Standard	Roller with offset	Roller with offset
<b>Comment</b>	Roller - Yoke; Material: Nylon; Roller Mounted On Back-Front Of Lever	Roller - Yoke; Material: Nylon; Roller Mounted On Back-Back Of Lever	Rod - Standard; Material: Aluminum; Material: Aluminum	Roller - With Offset; Material: Nylon; Roller Mounted On Back Of Lever	Roller - With Offset; Material: Nylon; Roller Mounted On Front Of Lever
<b>Radius</b>	38,1 mm [1.5 in]	38,1 mm [1.5 in]	139,7 mm [5.5 in]	38,1 mm [1.5 in]	38,1 mm [1.5 in]
<b>Diameter</b>	19,05 mm [0.75 in]	19,05 mm [0.75 in]	-	19,05 mm [0.75 in]	19,05 mm [0.75 in]
<b>Width</b>	6,35 mm [0.25 in]	6,35 mm [0.25 in]	-	6,35 mm [0.25 in]	6,35 mm [0.25 in]
<b>Product Type</b>	Lever				
<b>Availability</b>	Global				

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### WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace 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.**

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.

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.

For application assistance, current specifications, or name of the nearest Authorized Distributor, check the Honeywell web site or call:

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[www.honeywell.com/sensing](http://www.honeywell.com/sensing)

[info.sc@.honeywell.com](mailto:info.sc@.honeywell.com)

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# Honeywell

### Sensing and Control

Honeywell

11 West Spring Street

Freeport, Illinois 61032

[www.honeywell.com/sensing](http://www.honeywell.com/sensing)



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