

Explosion Proof Bourdon Tube

Series B1X, B2X

Features

- ▶ High accuracy, high proof
- ▶ Explosion-proof housing
- ▶ Hermetically sealed
- ▶ Tamper-proof setpoint adjustment
- ▶ Dual set point capability
- ▶ UL, CSA, ATEX approved
- ▶ NEMA 4, 7, 9 & IP65

Applications

- ▶ Power plants
- ▶ Water pumps
- ▶ Blow out preventers (BOP)
- ▶ Pneumatic devices
- ▶ General industrial applications
- ▶ Oil and gas applications



General Specifications*

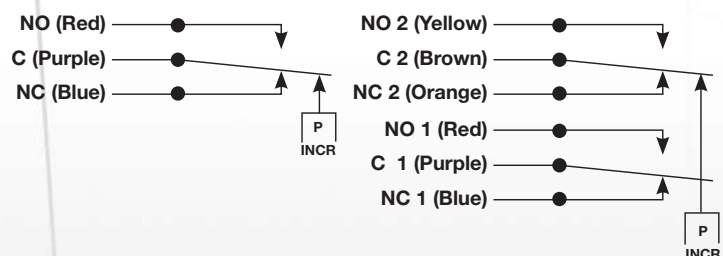
Electrical Characteristics:	All models incorporate Underwriters Laboratories, Inc. and CSA Listed single pole double throw snap-action switching elements.
Accuracy¹:	± 1% of the adjustable range
Switch: Type:	Single pole double throw (SPDT) snap action; single or dual circuit
Rating:	3 amps @ 480 VAC (standard)
Wetted Parts: Process Fitting & Bourdon Tube:	316 series stainless steel
Enclosure:	Die-cast aluminum
Electrical Connection:	Internal terminal strip via conduit connection (1/2" NPT on B1X models, 3/4" NPT on B2X models)
Enclosure Ratings:	NEMA 4, 7, 9
Pressure Connection:	Models with proof pressures up to 7,200 psi: 1/4" NPT Female; Models with higher pressure ranges: Superpressure Fitting for 1/4" O.D. tube
Approvals: UL/CSA (standard):	UL File No.#E37043; CSA File No. #LR22354 Hazardous Locations, Class I Division I, Groups B, C, & D; Class II Groups E, F, & G
ATEX (optional):	Ex models are ATEX certified per ISSeP 03 ATEX 122XC & marked as follows: CE 0081 II2 GD EEX d IIC T6, T85°C, IP65 -40°C ≤ Tamb ≤ 75°C

* See product configurator for additional options.

¹ ±1% for 32-110°F; ±2% for > 110°F; -2/+3°F for <32°F

Temperature Range: Operating:	-40° to +165°F (-40° to +74°C)
Adjustment Instructions:	Turn adjustment screw clockwise to lower actuation point (remove protective hex cap to remove adjustment screw)
Options:	<ul style="list-style-type: none"> - Gold contact Limit switch; 1 A @ 125 VAC - 1/2" NPT female process connection - Cleaned for oxygen service – consult factory for details - Adjustable deadband - Temperature compensation and pre-cycle - Hermetically sealed limit switch
Shipping Weight:	8.5 lbs. approximate

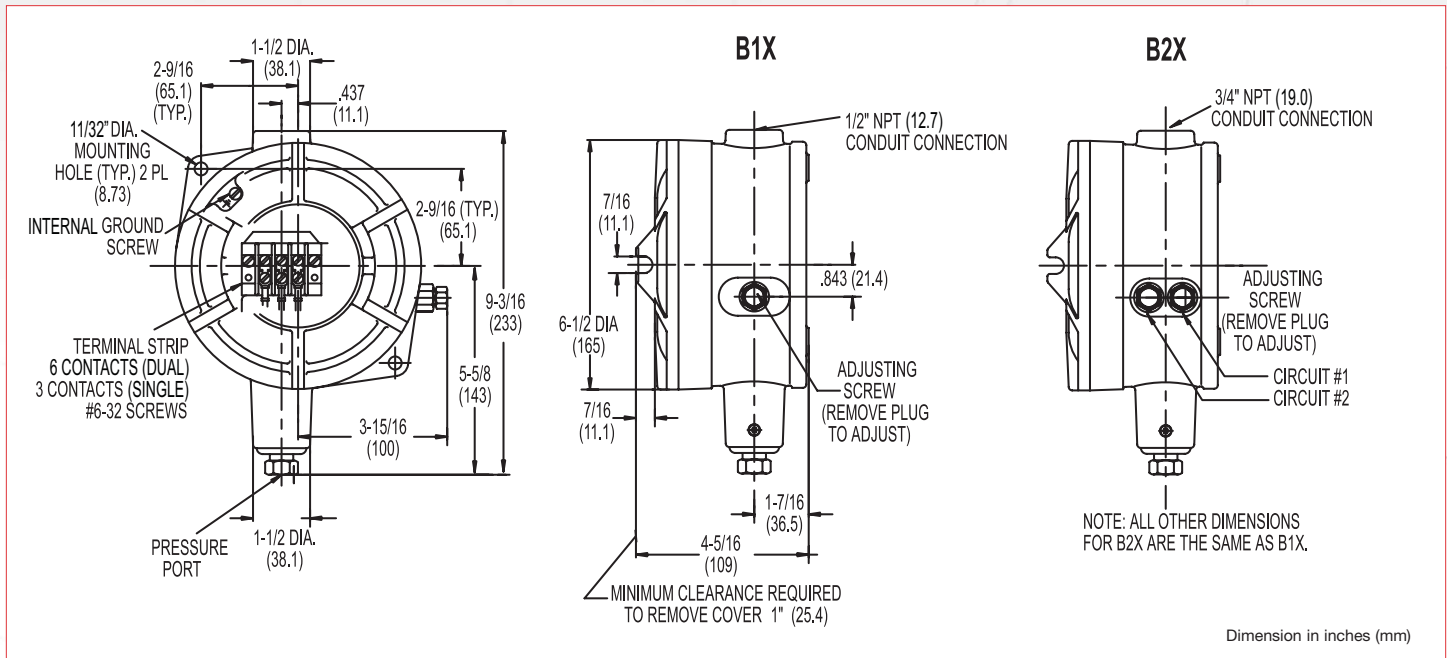
Wiring Diagram



Explosion Proof Bourdon Tube

Series B1X, B2X

Technical Drawing



Product Configurator

Example	B1X	-H	-32	SS	-P2	-UL
Prefix						
H	Hermetically sealed limit switch option - Class I, Division II (requires AA, CC or HH limit switch)					
Series						
B1X	Single setpoint					
B2X	Dual setpoint					
Limit Switch¹						
-A	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (standard for pressure range 12, 32, 48 and 72)					
-B	10 amps @ 125/250/480 VAC; 0.05 amps @ 125 VDC; 0.03 amps @ 250 VDC					
-C	10 amps @ 125/250/480 VAC; 0.1 amps @ 125VDC; 0.05 amps @ 250 VDC					
-H	10 amps @ 125/250 VAC; 3 amps @ 480 VAC (standard with pressure range 20)					
-J	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; (comes with an elastomer boot)					
-M	10 amps @ 125/250 VAC; 3 amps @ 480 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC					
-S	15 amps @ 125/250/480 VAC; 0.05 amps @ 125 VDC; 0.03 amps @ 250 VDC (adjustable deadband)					
-GH	1 amp @ 125 VAC with gold contacts					
-AA	Hermetically sealed; 4 amps @ 125/250 VAC					
-CC	Hermetically sealed; 10 amps @ 125/250 VAC					
-GH	Hermetically sealed; 1 amp @ 125 VAC with gold contacts					
-HH	Hermetically sealed; 5 amps @ 125/250 VAC					
Option						
-EX	ATEX certified, -EX in place of -UL for ATEX only					
-UL	UL & CSA approval (standard)					
-Sxxx	Factory preset (consult factory)					
Process Connection						
Blank	1/4" NPT for 12, 20 & 32 pressure ranges & 1/4" tube for 48 - 72 pressure ranges (standard)					
-P2 ³	1/2" NPT female pressure fitting					
SS	Stainless steel bourdon tube					

Pressure Range⁴

	Adjustable Range				Approx. Deadband ² (Actuation Value)	Proof Pressure
	Decreasing - psi (bar)		Increasing - psi (bar)			
	Min	Max	Min	Max	psi-(bar)	psi (bar)
12	50 (3.3)	1173 (78)	77 (5.1)	1200 (80)	11 - 27 (.7 - 1.8)	1800 (120)
20	160 (10.6)	1961 (131)	199 (13)	2000 (133)	16 - 39 (1.1 - 2.6)	4800 (320)
32	240 (16)	3115 (208)	325 (22)	3200 (213)	40 - 85 (2.7 - 5.7)	7200 (480)
48	325 (22.4)	4715 (321)	325 (22)	4800 (327)	40 - 85 (2.7 - 5.7)	7200 (480)
72	600 (40)	6650 (443)	1150 (77)	7200 (480)	275 - 550 (18 - 37)	18000 (1200)

¹ Consult sales drawings for specific deadband values

² Deadband values indicated when used with the "standard" limit switch

³ Consult sales drawings for dimensions

⁴ Pressure range subject to change