

Bourdon Tube Pressure Switches

B1X/B2X



Mechanical single/dual pressure switch
Repeatability ± 1.0 % at constant temperature

Features

- Bourdon tube pressure switch
- Switching point during operation can be set with the corresponding reference device
- All wetted parts welded
- Approvals: Ex ia, Ex d
- Suitable for SIL2/3 (IEC 61508) acceptance

Adjustment ranges

- 5,3 ... 496 bar

Applications

- Pump control
- Injection molding
- Press control
- Power plants
- Alarm function



Technical Data

Wetted parts	Stainless steel 1.4401 and 1.4305
Process connection	Stainless steel 1.4401
Bourdon tube	Stainless steel 1.4401
Repeatability	± 1 % at constant temperature
Switching rate	max. 20/min
Temperature range	-40 °C... +75 °C
Protection class	IP65
Housing	Explosion proof housing, aluminum anodized and lacquered
Process connection	1/4" NPT female thread except ranges marked with*). These switches have proof pressures above 500 bar and are provided with high pressure thread with adapter G1/4" IG.
Electrical connection	Internal terminal strip (0.5 - 2.5 mm ²), approved cable gland has to be provided by customer
Electrical rating and hysteresis:	Many micro switch versions with different switching powers and hysteresis are applicable and allow customization.

Weight	B1X-...: approx. 3,9 kg B2X-...: approx. 3,9 kg
Set point adjustment	Turn the adjustment screw clockwise to decrease the set point.
Approval	Ex ia, Ex d
Intrinsically safe	Gold contact micro switches must be used for intrinsically safe applications. Add "EXI" in case of ordering. Maximum rating according to ATEX: U _{max} = 28 V; I _{max} = 50 mA EX i: Certificate No.: TÜV 22 ATEX 322922 X, IECEx TUN 22.0011X U _i = 28 V, I _i = 50 mA, P _i = 0.84 W, C _i , L _i negligibly small -40 °C < T _a < +75 °C (Ex) II 1 G Ex ia IIC T ₆ Ga or II 1 D Ex ia IIIC T ₂₀₀ 100°C Da (Ex) II 2 D Ex tb IIIC T ₈₀ °C Db IP66 or Ex tb IIIC T ₉₅ °C Db IP66* for LT version Ex d: Certificate No. ISSEP08ATEX024X/3, -40 °C < T _a < +75 °C and -60°C < T _a < +85 °C (LT-Version) (Ex) II 2 G Ex db IIC T ₆ Gb or II 2 G Ex db IIC T ₅ Gb (for LT-Version) II 2 D Ex tb IIIC T ₈₀ °C Db IP66 or II 2 D Ex tb IIIC T ₉₅ °C Db IP66 (for LT-Version)

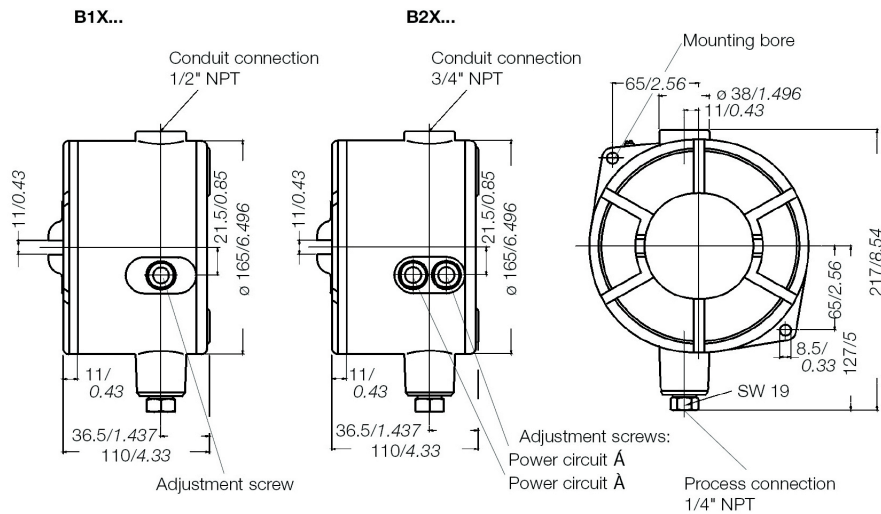
Pressure Ranges

Pressure range code	Adjustment range [bar]		Max. operation pressure [bar]	Proof pressure [bar] (short term)	The resulting hysteresis is approx. ... bar at the end of range	
	Increasing pressure	Decreasing pressure			H, GH [bar]	M [bar]
12SS	5.3... 83	3.4... 81	100	125	0.96	1.86
20SS	13.7... 137	11.0... 134	250	330	2.68	5.44
32SS	22.4... 220	16.5... 215	400	500	2.75	5.90
72SS*	79.3... 496	41.4... 459	600	950	16.90	37.90

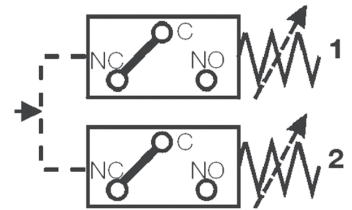
Bourdon Tube-Pressure Switches

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Dimensions (mm / inch)



Wiring code for all types (contact status at atmospheric pressure)



Power circuit 1	Power circuit 2
C=purple	C=brown
NC=blue	NC=orange
NO=red	NO=black

Electrical Ratings

Micro switch	Special features	Volt AC 50/60 Hz	Ind. load A	Res. load A	Volt DC	Ind. load A	Res. load A	Comments
H	Micro switch with silver contacts	125 250 480*	10 10 3	10 10 3	6 to 24	0.50	0.5	Small hysteresis; High AC-/ low DC-load
M	Micro switch with silver contacts	125 250 480*	10 10 3	10 10 3	12 24 250*	5.00 1.00 0.25	15.0 2.0 0.4	Medium hysteresis; High AC- and DC-loads
GH	Micro switch with gold contacts for low voltage and/or low current (e. g. "Exi")	125	1	1	24	1.00	1.00	Small hysteresis

Order code

Base model		Bourdon tube pressure switch	
B			
	Number of switching points		
1		1 switch point	
2		2 switch points	
	Housing type		
X		Ex- d housing	
	Micro switch contact type		
-H		H-Micro switch	
-GH		GH-Micro switch	
-M		M-Micro switch	
	Pressure ranges		
12		5.3 ... 83 bar	
20		13.7 ... 137 bar	
32		22.4 ... 220 bar	
72		79.3 ... 1496 bar	
	Material of wetted parts		
SS		1.4401 and 1.4305	
	Electrical connection		
()		Terminal strip intern	
	Options		
-EXI		ATEX / IECEx (Ex ia)	
-EX		ATEX (Ex d)	
Example			
B	1	X	-GH 12 SS -EX

* on request