

# Compact Pressure Switches

## Series 9671X/9681X/9692X

Piston pressure switch with explosion proof housing, for hazardous areas, repeatability 2% f. s.

### Features

- ▶ IECEx & ATEX approved
- ▶ SIL2 (IEC 61508)
- ▶ NEMA 4X, 7 & 9
- ▶ NACE compliant
- ▶ SPDT and DPDT switch
- ▶ Safe to adjust during operation
- ▶ Dia-seal/piston sensor
- ▶ Hazardous location dual seal approved for Canada
- ▶ Lower ambient temperature option (-40° C to +65° C)

### Adjustment ranges

Type 9671X: -0.17...-1 bar, vacuum range

Type 9681X: 0.2...34.4 bar, relative pressure

Type 9692X: 10.3...689.7 bar, relative pressure

### Applications

- ▶ BOP closing units
- ▶ Safety panels
- ▶ Pipelines
- ▶ Chemical and petrochemical plants
- ▶ Pulp and paper mills
- ▶ Pump and gas compressors
- ▶ Turbines

### Technical Data

<b>Repeatability:</b>	±2 % f. s.
<b>Typical Life:</b>	2.5 million cycles
<b>Switch:</b>	SPDT, simulated DPDT (optional)
<b>Wetted parts:</b>	
Process fitting:	Stainless steel, material no. 1.4401
Seals:	FKM (9671X & 9681X), FKM O-ring and PTFE backup ring (9692X)
Piston:	Stainless steel (on 9692X)
Enclosure:	316 stainless steel or aluminum
<b>Electrical connection:</b>	1/2" NPT AG male conduit connector 18 AWG 18" (450 mm) lead wire, PVC jacket
<b>Electrical Rating:</b>	11 amps, 125/250 V AC 5 amps, 30 V DC (CC Class) 1 amp, 125 V DC
<b>Enclosure Ratings:</b>	IP65 NEMA 4X, 7 & 9 (SS) NEMA 4, 7, & 9 (AL)
<b>Process connection:</b>	1/4" NPT female (standard) See configurator for more options



<b>Approvals:</b> ATEX/IECEx	CE 0081, LCIE 08 ATEX 6074X EX II 2 G, Ex d IIC T6 Gb IECEx LCIE 17.0001X
<b>UL # E37043</b> <b>CSA # LR22354</b>	UL&CSA Approved for use in hazardous locations Class I, Groups A,B,C,& D; Class II, Groups E,F,& G (Group A, UL Only)
<b>Temperature range:</b>	-20 °C ...+60 °C operating temp. -40 °C ... +75 °C T <sub>amp</sub> Atex Ex ia -20 °C ... +60 °C T <sub>amp</sub> Atex Ex d -20 °C ... +40 °C UL -40 °C ...+65 °C
<b>LT Option : (not UL or CSA)</b>	
<b>EMI/RFI:</b>	EN55011
<b>Vibration:</b>	10g 10-500 Hz, MIL-STD-202F
<b>Shock:</b>	50g, 11 ms, MIL-S-901C
<b>Adjustment:</b>	Internal adjustment wheel with built in locking set-screws <sup>1</sup>
<b>Shipping Weight:</b>	Approximately 0,84 kg.

<sup>1</sup> Need to loosen set screw at all times when resetting adjustment

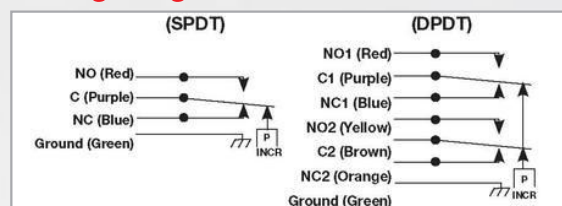
## Compact Pressure Switches

## Series 9671X/9681X/9692X

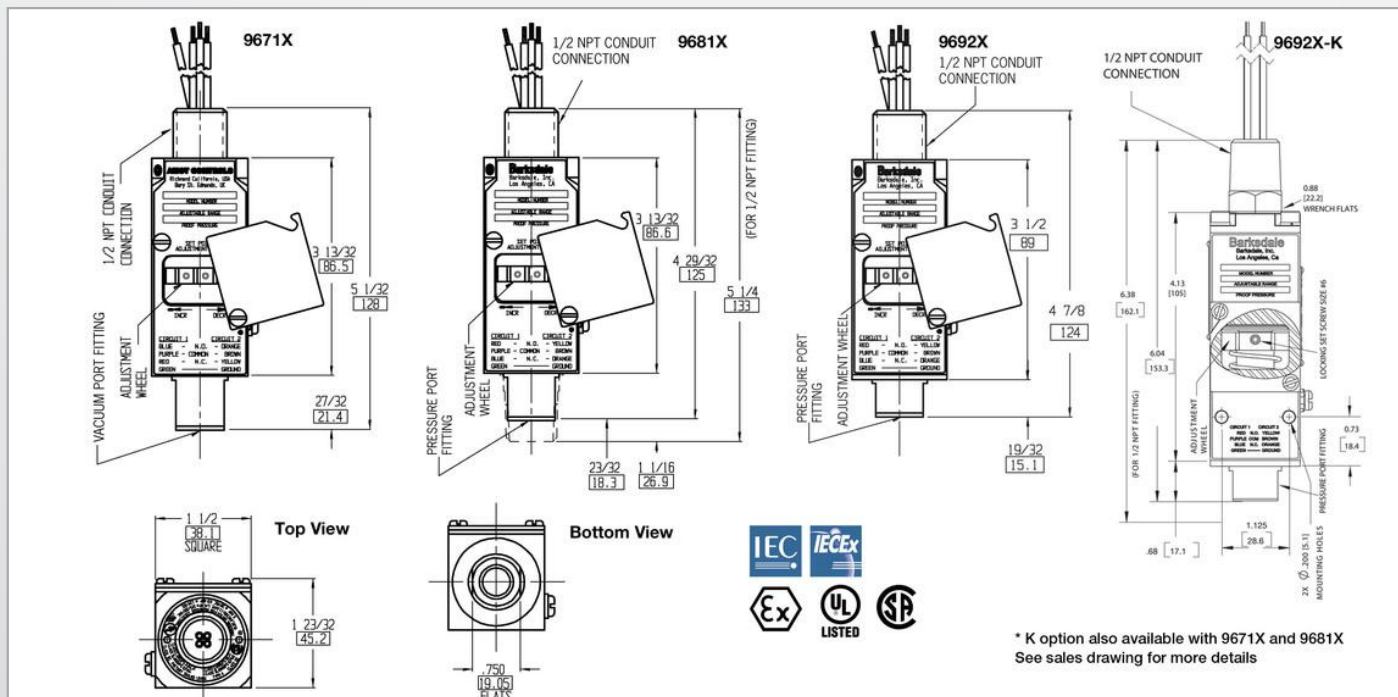
### Wiring code

Function	9692X/9681X (Pressure)		9671X (Vacuum)	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2
Normally Open / NO	red	yellow	blue	orange
Common / C	purple	brown	purple	brown
Normally Closed / NC	blue	orange	red	yellow
Earth	green		green	

### Wiring Diagrams



### Dimensions (mm / inch)



## Order Code

### Series 96X

### Approvals

Blank All approvals (ATEX & IECEx, UL & CSA)

A<sup>1</sup> ATEX & IEXEx only

### Base Model

9671X	Vacuum switch, -0.17 to -1 bar
9681X	Pressure switch, 0.2 - 34.4 bar
9692X	Pressure switch, 10.3 - 689.7 bar

### Limit Switch

-1CC	SPDT Switch, 11 amps @ 125/250 VAC; 5 amps @ 30 VDC
-2CC	DPDT Switch, 11 amps @ 125/250 VAC; 5 amps @ 30 VDC
-1GH	SPDT gold contact switch, 1 amp @ 125 VAC
-2GH	DPDT gold contact switch, 1 amp @ 125 VAC

	Pressure Range	Adjustable Range				Approx. Deadband <sup>2</sup> (Actuation Value)	Proof Pressure
		Decreasing - inch Hg (bar rel.)		Increasing - inch Hg (bar rel.)			
		Min	Max	Min	Max		
9671X	Blank	1 (-0.034)	21 (-0.711)	5 (-0.169)	30 (-1.000)	4 - 9 (0.136...0.305)	30 (-1.000)
9681X	-1	2 (.1)	12 (.8)	3 (.2)	15 (1)	1 - 3 (.07 - .2)	1000 (69)
	-2	5 (.3)	125 (8.6)	7 (.5)	150 (10.3)	2 - 25 (.1 - 1.7)	1000 (69)
	-3	25 (1.7)	260 (17.9)	32 (2.2)	300 (20.6)	7 - 40 (.5 - 2.8)	1000 (69)
	-4	50 (3.4)	440 (30.3)	65 (4.5)	500 (34.4)	15 - 60 (1 - 4.1)	1000 (69)
9692X	-1	100 (6.9)	600 (41.4)	150 (10.3)	750 (51.7)	50 - 150 (3.4 - 10.3)	15000 (1034)
	-2	150 (10.3)	800 (55.2)	220 (15.2)	1000 (69)	70 - 200 (4.7 - 13.8)	15000 (1034)
	-3	400 (27.6)	2600 (179)	500 (34.5)	3000 (207)	100 - 400 (6.7 - 27.6)	15000 (1034)
	-4	700 (48.2)	4400 (303)	840 (57.9)	5000 (345)	140-600 (9.6 - 41.4)	15000 (1034)
	-5	1000 (69)	6700 (462)	1200 (82.8)	7500 (517)	140-800 (9.6 - 55.2)	15000 (1034)
	-6	150 (10.3)	800 (55.2)	220 (15.2)	3000 (207)	50-1000 (3.4-68.9)	15000 (1034)
	-7	5000 (344.8)	8800 (606.9)	5200 (358.6)	10000 (689.7)	200-2000 (13.8-137.9)	15000 (1034)

### Wetted Material

Blank	FKM diaphragm/O-rings (standard)
Blank1	For -LT Option (consult factory)
-B	Buna-N diaphragm/O-rings (standard)
-E	EPR diaphragm/O-rings (UL and ATEX not available with this option; CSA only available on the 9692X models)

### Process Connection<sup>3</sup>

Blank	1/4" NPT female (standard)
-P1	7/16-20 SAE female process connection
-P3	1/2" NPT female process connection
-P4	1/2" NPT male process connection

### Housing Option

Blank	316 stainless steel housing
-AL	Aluminum housing (-K only)
-K	Mounting holes and conduit wrench flats

### Options

-Wxxx	Extra wire length (XXX = inches)
-Sxxx	Factory preset (consult factory)
-T	Wire lock feature for adjustment cover screws
-LT <sup>1</sup>	Low temp: -40 °C to 65 °C (must select option "A") Consult factory

### Example

A 9681X -01CC -2 - -AL -K -W036-LT

<sup>1</sup> For -LT, Low temperature option, "A" option in approvals must be selected. Not UL or CSA approved. Consult factory for lead-time and availability.

<sup>2</sup> Deadband values indicated when used with the "CC" limit switch.

<sup>3</sup> Contact factory for other possible connection options.

## Accessories

Order Number	Description
926-0811	Ex d - Terminal box incl. terminal (drawing 923-1533 on request)
999-0081	Tamper proof cover