



CustomControlSensors

# Hazardous Areas Pre-Set / Adjustable Pressure Switch

## 675DE\* & 675DE\*800\* - Diaphragm Sensor

### DESCRIPTION

- Highly reliable devices utilizing the CCS Dual-Snap® Belleville disc spring principle pioneered by CCS' engineers.
- Engineering based on aerospace technology.
- Rigid, midsize and internally adjustable for factory setting or convenient field set point adjustment.
- Repeatable and stable set points.
- Vibration and shock resistant.
- High cycle life.
- High over-pressure capability. (System and Proof)

- Certified explosion proof hermetically sealed electrical assembly for environmental protection.

SHIPPING WEIGHT: APPROXIMATELY 22 OUNCES (624 GRAMS)

### SERIES:

- 675DE\*
- 675DE\*800\*

### SET POINT RANGE:

#### DIFFERENTIAL PRESSURE:

- .7 to 31" H<sub>2</sub>O
- 1.7 to 77.2 mbar
- 0.17 to 7.72 kPa

### OPERATING TEMPERATURE:

Temperature limits change with o-ring selection.

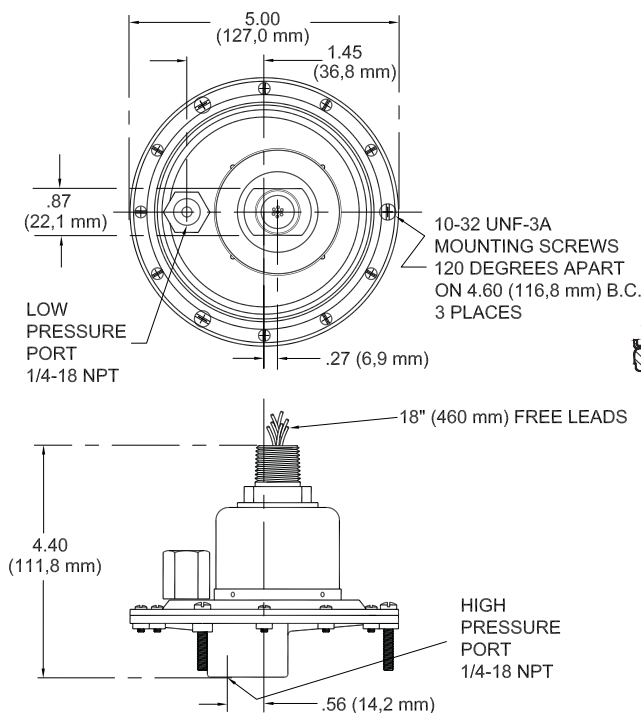
- 40° to 186°F
- 40° to 86°C

### STANDARD FEATURES:

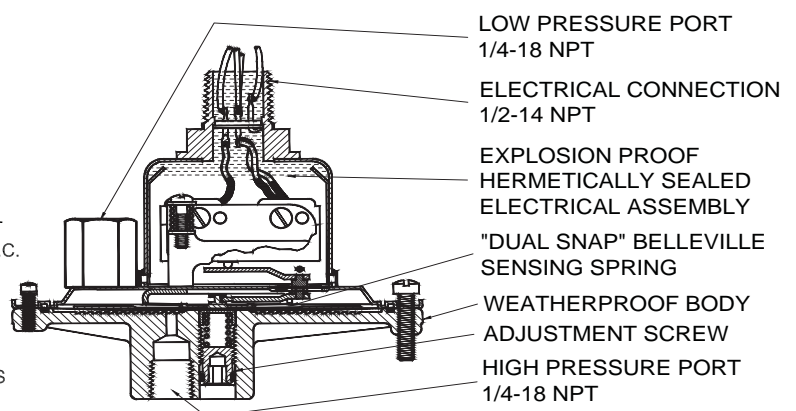
- CE Mark
- Dual Seal ANSI/ISA -12.27.01
- NEMA: 4, 7, 9, 13 / IP66
- U.L. / CSA Listed
- Hermetically Sealed Electrical Assembly



### INSTALLATION DRAWING



### DESIGN PRINCIPLES



### SERIES 675DE & 675DE800

**FIELD SETTING:** Insert 3/16" Allen wrench into adjustment screw (located in pressure port). Clockwise to decrease settings. Counterclockwise to increase settings.

**NOTE:** DO NOT USE ELECTRICAL HEX FOR TORQUING.





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### OPERATING AND ORDERING DATA

SERIES 675DE*	WETTED PARTS: 1/4"-18 NPT ALUMINUM PRESSURE PORT, POLYIMIDE DIAPHRAGM, BUNA N O-RING							
	FIXED SET POINT RANGE (SPECIFY SET POINT ON ORDER)		APPROXIMATE DEAD BAND INCHES H <sub>2</sub> O (mbar)		MAX SYSTEM PRESSURE PSIG (mbar)	PROOF PRESSURE PSIG (mbar)		
	INCREASING PRESSURE INCHES H <sub>2</sub> O (mbar)	DECREASING PRESSURE INCHES H <sub>2</sub> O (mbar)	AT BOTTOM OF RANGE	AT TOP OF RANGE		BOTH PORTS SIMULT.	HIGH OVER LOW LOW OVER HIGH	HIGH
675DE*1	1.5-30 (3.7-75)	0.8-27 (1.99-67.2)	0.7 (1.7)	3.0 (7.5)	10 (689)	15 (1034)	15 (1034)	10 (689)
675DEM*1	1.5-30 (3.7-75)	0.8-27 (1.99-67.2)	0.7 (1.7)	3.0 (7.5)				
SERIES 675DE*800*	WETTED PARTS: 1/4"-18 NPT ALUMINUM PRESSURE PORT, POLYIMIDE DIAPHRAGM, BUNA N O-RING							
	ADJUSTABLE SET POINT RANGE		APPROX. DEAD BAND INCHES H <sub>2</sub> O (mbar)	MAX SYSTEM PRESSURE PSIG (mbar)	PROOF PRESSURE PSIG (mbar)			
	INCREASING PRESSURE INCHES H <sub>2</sub> O (mbar)	DECREASING PRESSURE INCHES H <sub>2</sub> O (mbar)			BOTH PORTS SIMULT.	HIGH OVER LOW LOW OVER HIGH	HIGH	LOW
675DE*8001	1.5-6.9 (3.7-17.2)	0.7-6.1 (1.8-15.3)	0.8 (1.9)	10 (689)	15 (1034)	15 (1034)	10 (689)	
675DE*M8001	2-6.9 (4.9-17.2)	0.7-5.6 (1.7-14)	1.3(3.2)					
675DE*8002	7-12.9 (17.4-32.1)	5.5-11.4 (13.7-28.4)	1.5 (3.7)					
675DE*M8002	7-12.9 (17.4-32.1)	5-10.9 (12.4-27.2)	2.0 (5.0)					
675DE*8003	13-18.9 (32.4-47.1)	11-16.9 (27.4-42.1)	2.0 (5.0)					
675DE*M8003	13-18.9 (32.4-47.1)	10.8-16.7 (26.9-41.6)	2.2 (5.5)					
675DE*8004	19-24.9 (47.3-62)	16.5-22.4 (41.1-55.8)	2.5 (6.2)					
675DE*M8004	19-24.9 (47.3-62)	16.5-22.4 (41.1-55.8)	2.5 (6.2)					
675DE*8005	25-31 (62.3-77.2)	22-28 (54.8-69.8)	3.0 (7.5)					
675DE*M8005	25-31 (62.3-77.2)	22-28 (54.8-69.8)	3.0 (7.5)					

### HOW TO ORDER

Follow these steps to build your part number:

1. Specify the series based on your required set point, range, dead band, system pressure and proof pressure.
2. Add desired options model code letter.
3. Add the applicable standard suffix number.

(Ex: 675DEY1-7054)

### PRESSURE CONVERSION

1 BAR = 14.5 PSI  
1 kPa = 0.145 PSI

### CERTIFICATIONS

Consult CCS website for complete certification and approval listing.

*Note: Additional modified standard suffixes are available, consult CCS sales department or CCS Representative.*

### OPTIONAL STANDARD MODIFIED SUFFIXES

- 7008:** Gold Contacts
- 7054:** 2 Meter Free Leads
- 7076:** 18 inch Teflon Free Leads (Low Temp Wire)

### OPTIONS MODEL CODES

- A:** Viton® O-Ring
- M:** DPDT Electrical
- Y:** ATEX / GOST Certified Electrical Assembly (Consult CCS Sales Department for GOST options and requirements.)
- \* Y Model Proof Pressure: 25 PSIG**
- \* Y Model System Pressure: 14.75 PSIG**

### ACCESSORIES - SOLD SEPARATELY

- 89-130:** Optional Switch Mounting Bracket Kit

### ELECTRICAL ENCLOSURE CERTIFICATIONS

\* c-UL, U.L./CSA Explosion Proof: Div. 1, 2 hermetically sealed electrical assembly P/N 17-51 (17-73 for M model option), listed by both Underwriter's Laboratories, Inc. (File No. E32961) and Canadian Standard Association (CSA) Testing Laboratories (File No. LR22921) for hazardous locations, Class 1, Groups A, B, C, and D; Class 2 Groups E, F, and G.

\* ATEX - Baseefa certified for potentially explosive atmospheres. Models 675\*\*Y, II 2 GD Ex d IIC, Baseefa 08ATEX0347X. (Option Y).

### ELECTRICAL CHARACTERISTICS SCHEMATIC AND WIRING CODE

#### RATING OF SWITCH ELEMENT

VOLTS	AMPERES	
	SPDT	DPDT "M"
125 AC - 50/60 Hz	15	5
250 AC - 50/60 Hz	15	5
480 AC - 50/60 Hz	15	-
28 DC	-	5
125 DC	.5	.5
250 DC	.2	-
*125 AC - 50/60 Hz	1 max	1 max
*30 DC	1 max	1 max

\*Gold Contacts -7008 Suffix

