



CustomControlSensors

# Hazardous Areas Adjustable / Pre-Set Pressure Switch

## 611G\*E & 611V\*E - 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, compact and externally 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.
- Various options for wetted materials and electrical ratings to meet a wide range of application requirements and media compatibility.

SHIPPING WEIGHT: APPROXIMATELY 10-20 OUNCES (283-567 GRAMS)

### SERIES:

- 611GE\*
- 611GZE\*
- 611VE\*

### SET POINT RANGE: GAGE PRESSURE:

- .75 to 180 PSIG
- .052 to 12.4 bar
- 5.17 to 1241 kPa

### VACUUM:

- 1.5 to 28.5" Hg
- 38 to 724 mm Hg

### OPERATING TEMPERATURE:

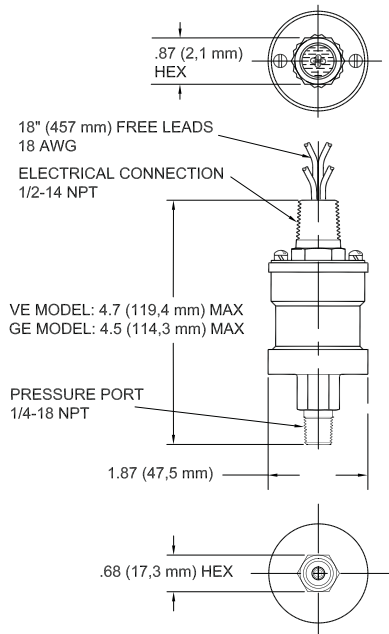
- Temperature limits change with o-ring selection.
- 40° to 186°F
- 40° to 86°C

### STANDARD FEATURES:

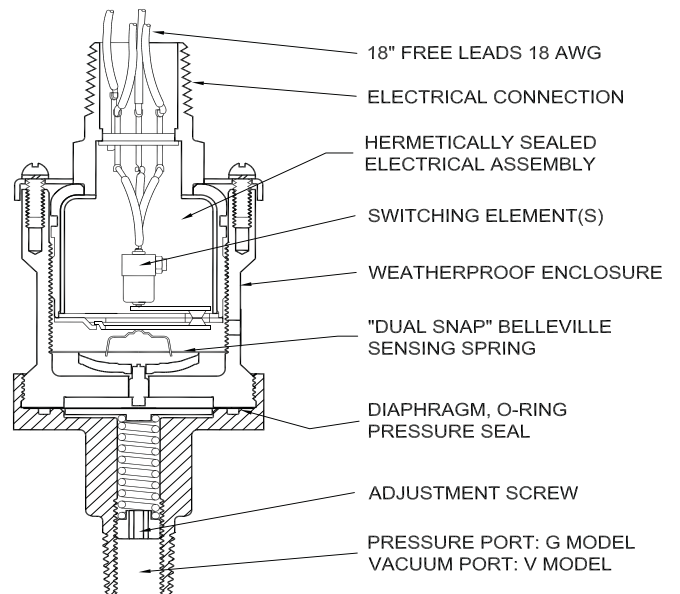
- CE Mark
- CCC
- CRN
- NACE MR0175 / ISO 15156 (GZ & VZ model only)
- NEMA: 4, 7, 9,13 / IP66
- U.L. / CSA Listed
- Hermetically Sealed Electrical Assembly



### INSTALLATION DRAWING



### DESIGN PRINCIPLES



### SERIES 611GE & 611VE

**FIELD SETTING:** Insert 1/8" Allen wrench into adjustment screw (located in pressure port) and turn. Clockwise to decrease settings, short of actuating the electrical. Counterclockwise to increase setting. Do not turn beyond flush with port.

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





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### OPERATING AND ORDERING DATA

SERIES 611GE*	WETTED PARTS: 1/4"-18 NPT ALUMINUM PRESSURE PORT, POLYIMIDE DIAPHRAGM, BUNA N O-RING					
	FIXED SET POINT RANGE (SPECIFY SET POINT ON ORDER)		AVERAGE DEAD BAND PSI (BAR)		SYSTEM PRESSURE PSIG (BAR)	PROOF PRESSURE PSIG (BAR)
	INCREASING PRESSURE PSIG (BAR)	DECREASING PRESSURE PSIG (BAR)	AT BOTTOM OF RANGE PSI (BAR)	AT TOP OF RANGE PSI (BAR)		
611GE*1	1.5-25 (0.103-1.72)	1-23 (0.069-1.59)	.75 (0.052)	2 (.138)	250 (17.2)	500 (34.5)
611GE*2	26-80 (1.79-5.51)	23-73.5 (1.59-5.07)	3 (0.21)	6.5 (0.448)	500 (34.5)	1000 (68.9)
611GE*3	81-180 (5.58-12.41)	66-153 (4.55-10.55)	15 (1.03)	27 (1.86)	500 (34.5)	1000 (68.9)
SERIES 611GE*800*	WETTED PARTS: 1/4"-18 NPT ALUMINUM PRESSURE PORT, POLYIMIDE DIAPHRAGM, BUNA N O-RING					
	ADJUSTABLE SET POINT RANGE		APPROX. DEAD BAND PSI (BAR)	SYSTEM PRESSURE PSIG (BAR)	PROOF PRESSURE PSIG (BAR)	
	INCREASING PRESSURE PSIG (BAR)	DECREASING PRESSURE PSIG (BAR)				
611GE*8001	1.5-12.1 (0.103-0.83)	.75-11.35 (0.052-0.78)	.75 (0.052)	250 (17.2)	500 (34.5)	
611GE*8003	12.1-30 (0.83-2.07)	10.1-28 (0.70-1.93)	2 (.138)	500 (34.5)	1000 (68.9)	
611GE*8005	30.1-70 (2.075-4.83)	27.1-67 (1.87-4.62)	3 (0.21)	500 (34.5)	1000 (68.9)	
611GE*8007	70.1-180 (4.83-12.4)	63.1-173 (4.35-11.92)	7 (.483)	500 (34.5)	1000 (68.9)	
SERIES 611GZE*800*	WETTED PARTS: 1/4"-18 NPT 316 STAINLESS STEEL PRESSURE PORT & DIAPHRAGM, VITON O-RING					
	ADJUSTABLE SET POINT RANGE		APPROX. DEAD BAND PSI (BAR)	SYSTEM PRESSURE PSIG (BAR)	PROOF PRESSURE PSIG (BAR)	
	INCREASING PRESSURE PSIG (BAR)	DECREASING PRESSURE PSIG (BAR)				
611GZE*8101	3-12 (0.21-0.827)	1-10 (0.069-0.69)	2 (.138)	250 (17.2)	500 (34.5)	
611GZE*8103	12-30 (.827-2.07)	9-27 (.62-1.86)	3 (0.21)	500 (34.5)	1000 (68.9)	
611GZE*8105	30-70 (2.07-4.83)	25-65 (1.72-4.48)	5 (0.345)	500 (34.5)	1000 (68.9)	
611GZE*8107	70-180 (4.83-12.41)	60-170 (4.14-11.72)	10 (.69)	500 (34.5)	1000 (68.9)	
SERIES 611VE*800*	WETTED PARTS: 1/4"-18 NPT ALUMINUM PRESSURE PORT, POLYIMIDE DIAPHRAGM, BUNA N O-RING					
	ADJUSTABLE SET POINT RANGE		APPROX. DEAD BAND INCHES Hg (BAR)	SYSTEM PRESSURE PSIG (BAR)	PROOF PRESSURE PSIG (BAR)	
	INCREASING VACUUM INCHES Hg (mm Hg)	DECREASING VACUUM INCHES Hg (mm Hg)				
611VE*8000	4-28.5 (102-724)	1.5-26 (38-660)	2.5 (0.08)	150 (10.3)	250 (17.2)	

### 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: 611GZEFM8105)

### PRESSURE CONVERSION

1 BAR = 14.5 PSI  
1 kPa = 0.145 PSI

### OPTIONAL STANDARD MODIFIED SUFFIXES

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

### CERTIFICATIONS

Consult CCS website for complete certification and approval listing.

### OPTIONS MODEL CODES

- A:** Viton® O-Ring (STD on GZE models)
- B:** Brass Port (Fixed set point models only)
- C:** 316 Stainless Steel Welded Capsule (G models only - GCE\*)
- F:** Ethylene Propylene O-Ring
- M:** DPDT Electrical
- Y:** ATEX / GOST Certified Electrical Assembly (Consult CCS Sales Department for GOST options and requirements.)

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

### ELECTRICAL ENCLOSURE CERTIFICATIONS

- \* c-UL, U.L./CSA Explosion Proof: Div. 1, 2 hermetically sealed electrical assembly P/N 46-1058 (46-1061 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 - SIRA certified for potentially explosive atmospheres. Models 6\*\*\*\*Y, II 2 GD Ex d IIC, 08ATEX1046X. (Option Y)
- \* IECEX - SIRA certified, SIR 10,0193X (Option Y)

### ELECTRICAL CHARACTERISTICS SCHEMATIC AND WIRING CODE

#### RATING OF SWITCH ELEMENT

VOLTS	AMPERES	
	SPDT	DPDT "M"
	Res.	Res.
125 AC - 50/60 Hz	11	11
250 AC - 50/60 Hz	11	11
30 DC	5	5
125 DC	.5	.5
*125 AC - 50/60 Hz	1 max	1 max
*30 DC	1 max	1 max

\*Gold Contacts - 7008 Suffix

