



CustomControlSensors

Hazardous Areas Adjustable Pressure Switch

6900G*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 internally adjustable for 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 25 OUNCES (708 GRAMS)

SERIES:

- 6900GE*
- 6900GZE*

ADJUSTABLE SET POINT RANGE:

- 1 to 3400 PSIG
- 0.07 to 234 bar
- 6.89 to 23400 kPa

OPERATING TEMPERATURE:

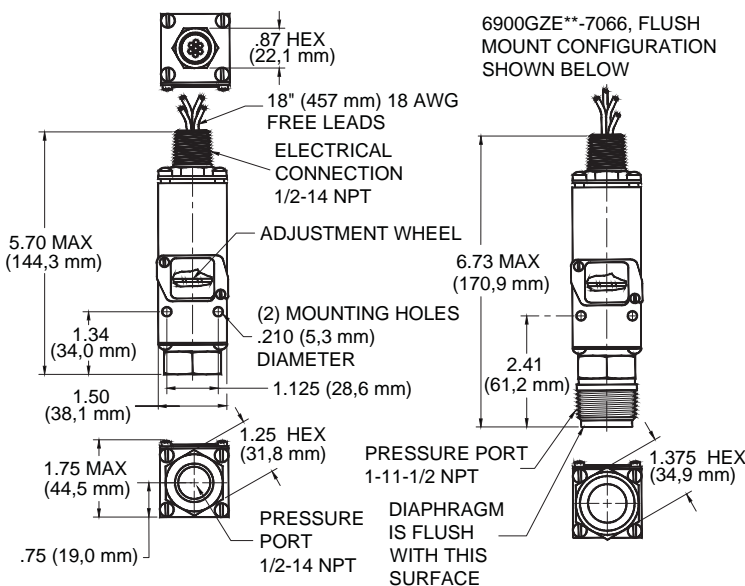
Temperature limits change with O-ring selection.

- 40° to 186°F
- 40° to 86°C

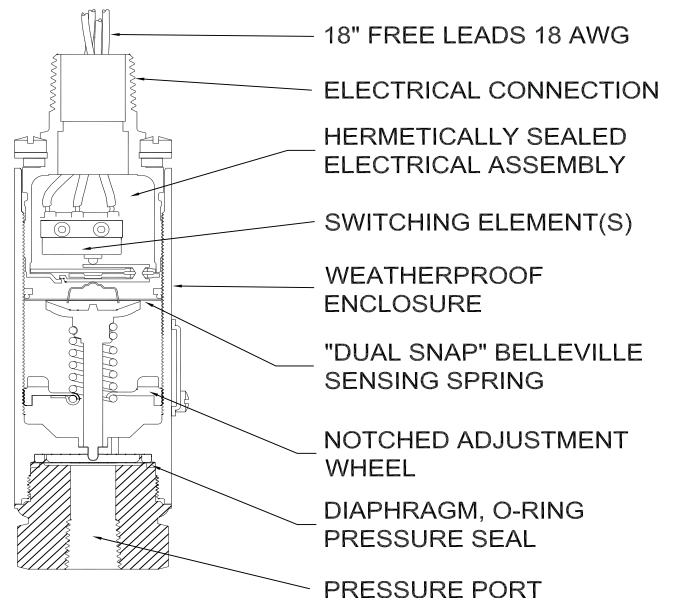
STANDARD FEATURES:

- CE Mark
- CCC
- CRN
- Dual Seal: ANSI/ISA-12.27.01
- NACE MR0175 / ISO 15156
- NEMA: 4, 7, 9,13 / IP66
- U.L. / CSA Listed
- Hermetically Sealed Electrical Assembly
- 316 SST Electrical Assembly

INSTALLATION DRAWING



DESIGN PRINCIPLES



SERIES 6900GE

FIELD SETTING: Loosen access cover. Adjust adjustment screw using screwdriver slot as illustrated, then attach to a variable pressure source with a suitable gage, and check that the circuit continuity operates at the pressures desired. Clockwise to increase settings. Counterclockwise to decrease setting.

NOTE: DO NOT USE ELECTRICAL HEX FOR TORQUING.





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OPERATING AND ORDERING DATA

SERIES 6900GE*	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)			
6900GE*12	3-20 (0.21-1.4)	1-18 (0.07-1.2)	2 (0.14)	500 (34.5)	750 (51.7)
6900GE*14	6-75 (0.41-5.1)	2-71 (0.14-4.9)	4 (0.28)		
6900GE*16	12-150 (0.8-10.3)	4-142 (0.28-9.8)	8 (0.6)		
6900GE*18	30-375 (2.0-25.9)	10-355 (0.7-24.4)	20 (1.4)	1500 (103)	2000 (138)
6900GE*20	300-1000 (20.7-69)	250-950 (17.2-66)	50 (3.5)	2000 (138)	3000 (207)
6900GE*22	700-2200 (48.3-152)	600-2100 (41.4-145)	100 (6.9)	3000 (207)	4500 (310)
6900GE*24	1800-3400 (124-234)	1580-3180 (109-219)	220 (15.2)	5000 (345)	7500 (517)

SERIES 6900GZE*	WETTED PARTS: 1/2"-14 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)			
6900GZE*12	3-20 (0.21-1.4)	1-18 (0.07-1.2)	2 (0.14)	500 (34.5)	750 (51.7)
6900GZE*14	9-75 (0.6-5.1)	3-69 (0.21-4.8)	6 (0.41)		
6900GZE*16	18-150 (1.2-10.3)	6-138 (0.41-9.5)	12 (0.8)		
6900GZE*18	45-375 (3.1-25.9)	15-345 (1.0-23.8)	30 (2.0)	1500 (103)	2000 (138)
6900GZE*20	300-1000 (20.7-69)	225-925 (15.5-64)	75 (5.1)	2000 (138)	3000 (207)
6900GZE*22	700-2200 (48.3-152)	520-2020 (35.9-139)	180 (12.4)	3000 (207)	4500 (310)
6900GZE*24	1800-3400 (124-234)	1520-3120 (105-215)	280 (19.3)	5000 (345)	7500 (517)

SERIES 6900GZE*-7066 FLUSH MOUNT	WETTED PARTS: 1" 316 STAINLESS STEEL PRESSURE PORT & WELDED DIAPHRAGM				
	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)			
6900GZE*12-7066	3-15 (0.21-1.0)	1-13 (0.07-0.9)	2 (0.14)	500 (34.5)	750 (52)
6900GZE*14-7066	12-75 (0.83-5.1)	6-69 (0.41-4.8)	6 (0.41)		
6900GZE*16-7066	18-150 (1.2-10.3)	6-138 (0.41-9.5)	12 (0.8)		
6900GZE*18-7066	45-375 (3.1-25.9)	15-345 (1.0-23.8)	30 (2.0)	1500 (103)	2000 (138)
6900GZE*20-7066	300-1000 (20.7-69)	225-925 (15.5-64)	75 (5.1)	2000 (138)	3000 (207)
6900GZE*22-7066	700-2200 (48.3-152)	520-2020 (35.9-139)	180 (12.4)	3000 (207)	4500 (310)

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: 6900GCE12-7044)

PRESSURE CONVERSION

1 BAR = 14.5 PSI
1 kPa = 0.145 PSI

OPTIONS MODEL CODES

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

OPTIONAL STANDARD MODIFIED SUFFIXES

- 7008:** Gold Contacts
- 7042:** Stainless Steel Body
- 7044:** Monel Port and Diaphragm
- 7045:** Hastelloy C-276 Port and Diaphragm
- 7054:** 2 Meter Free Leads
- 7076:** 18 inch Teflon Free Leads (Low Temp Wire)
- 7081:** M20 Explosion Proof Electrical Conduit Connection
- 7082:** 316 SST Port, Piston & Body, E.N.P. Front cover & Locks. 1/4-18 NPT Female Pressure port.
- 7085:** 316 SST Port, Piston & Body, E.N.P. Front cover & Locks. 1/4-18 NPT Female Pressure port. 2 Meter Free Leads.
- 7088:** 1/4" -18 NPT Female 316 Stainless Steel Pressure Port
- 7089:** 1/2" -14 NPT Male 316 Stainless Steel Pressure Port

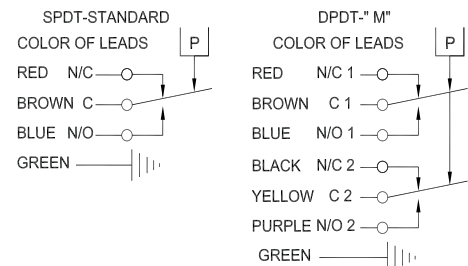
ELECTRICAL ENCLOSURE CERTIFICATIONS

- * 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 certified for potentially explosive atmospheres electrical assembly series 46-XXXXXXX, Models 6*****, Ex d IIC T6, Directive 94/9/EC Sira 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



CERTIFICATIONS

Consult CCS website for complete certification and approval listing.

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