



CustomControlSensors

# Hazardous Areas Adjustable Pressure Switch

## 6900PZZE\*5Y\* - Piston 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 16 OUNCES (467 GRAMS)

### SERIES:

6900PZZE5Y\*

### ADJUSTABLE SET POINT RANGE:

5 to 16,000 PSIG  
0.34 to 1,103 bar  
34.47 to 110,316 kPa

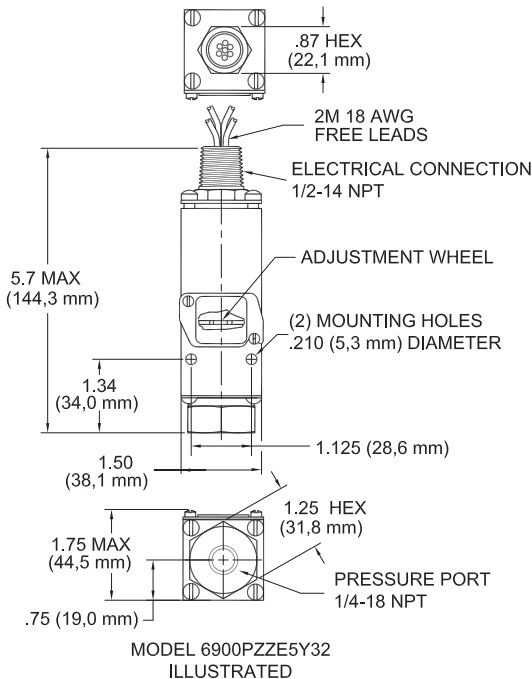
### OPERATING TEMPERATURE:

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

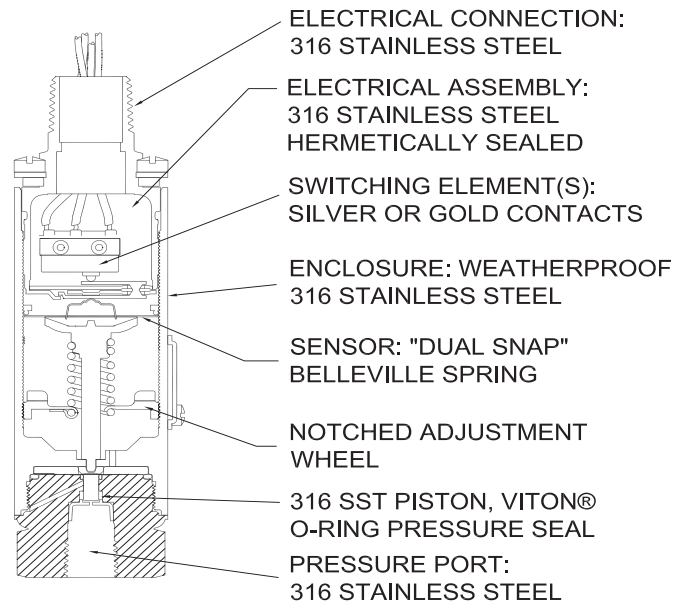
### STANDARD FEATURES:

- CE Mark
- CCC
- CRN
- Dual Seal Certified: ANSI/ISA-12.27.01
- NACE MR0175 / ISO 15156
- NEMA: 4, 7, 9,13 / IP66
- U.L. / CSA Hazardous Area Listed
- IECEx - ATEX Compliant
- Hermetically Sealed 316 SST Electrical Assembly
- 316 SST Body, Pressure Port and Piston

### INSTALLATION DRAWING



### DESIGN PRINCIPLES



SERIES 6900PZZE5Y

**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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## 6900PZZE\*5Y\* - Piston Sensor

### OPERATING AND ORDERING DATA

SERIES 6900PZZE5Y*	PISTON PRESSURE SWITCH FOR HIGH CYCLING-LONG LIFE-HYDRAULIC APPLICATION 316 SST BODY, ¼-18 NPT FEMALE 316 SST PRESSURE PORT AND PISTON 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)			
6900PZZE*5Y32	15-200 (1.03-13.8)	5-190 (0.35-13.1)	10 (0.7)	2000 (138)	6000 (413)
6900PZZE*5Y34	150-1600 (10.3-110)	40-1490 (2.8-103)	110 (7.6)	3000 (207)	6000 (413)
6900PZZE*5Y36	500-3200 (34.5-221)	330-3030 (22.8-209)	170 (11.7)	5000 (345)	7500 (517)
6900PZZE*5Y38	2000-6500 (138-448)	1500-6000 (103-414)	500 (34.5)	10000 (689)	13000 (896)
7/16"-20 UNF 316 STAINLESS STEEL PRESSURE PORT & PISTON,					
6900PZZE*5Y40	5000-11000 (345-758)	3500-9500 (241-655)	1500 (103)	14000 (965)	20000 (1379)
6900PZZE*5Y42	10000-16000 (690-1103)	7500-13500 (517-931)	2500 (172)	17000 (1172)	25000 (1724)

### 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: 6900PZZEM5Y34)

### PRESSURE CONVERSION

1 BAR = 14.5 PSI

1 kPa = 0.145 PSI

### STANDARD MODEL CODES

**ZZ:** 316 SST body and female pressure port with ¼-18 NPT

**5Y:** ATEX/UL/CSA certified electrical assembly with ½-14 conduit thread and 2 meter free leads.

### OPTIONAL MODEL CODES

- F:** Ethylene Propylene O-Ring
- L:** Gold Contact
- M:** DPDT Electrical

### APPROVALS

\*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-XXXXXX, Models 6\*\*\*\*, Ex d IIC T5 and T6; Ex tb IIIC T100°C/T85°C Db IP66/7, Directive 94/9/EC Sira 08ATEX1046X. (Option Y)

\*IECEX - SIRA certified, SIR 10,0193X (Option Y)

\*Dual Seal Certified File No. LR22921

Russian Certificate, Gost R 0813770

### ACCESSORIES

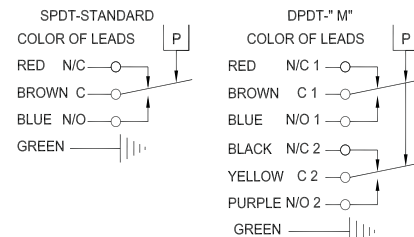
- \* **Junction Box:141-20**  
Hazardous Area Junction Box (3/4" NPT Stainless Steel) Explosion Proof, Weatherproof, Div 1, Div 2, Zone 1, Zone 2, IP 68. Certified to ATEX, CSA, FM, IECEX.
- \* **89-134-1H:** Horizontal SST 2 inch Pipe Clamp
- \* **89-134-1V:** Vertical SST 2 inch Pipe Clamp

### ELECTRICAL CHARACTERISTICS SCHEMATIC AND WIRING CODE

RATING OF SWITCH ELEMENT

VOLTS	AMPERES	
	SPDT Res.	DPDT "M" 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

\*L Gold Contacts



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

**DUAL-SNAP®**

ccsdualsnap.com

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Form 830G, 2.13.14