

### CustomControlSensors

## Non-Hazardous Areas Adjustable Temperature Switch

6900T\* - Probe



### **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-temperature capability. (System and Proof)
- Various options for electrical ratings to meet a wide range of application requirements.

SHIPPING WEIGHT: APPROXIMATELY 32 OUNCES (907 GRAMS)

### **SERIES:**

6900T\*

### ADJUSTABLE SET POINT RANGE: TEMPERATURE:

0° to 405°F -18° to 207°C

### **OPERATING TEMPERATURE:**

-40° to 186°F -40° to 86°C

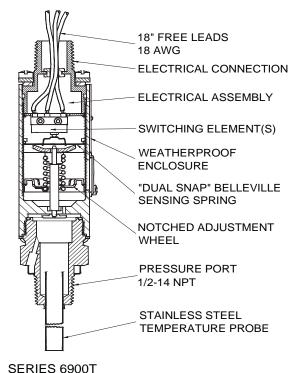
### **STANDARD FEATURES:**

- CE Mark
- CCC
- CSA Listed
- NACE MR0175 / ISO 15156
- NEMA: 4, 13 / IP66
- Weatherproof

### **INSTALLATION DRAWING**

### ELECTRICAL CONNECTOR FOUR BLADES CONFORMS TO DIN 43650 .87 HEX 1 75 MAX (22,1mm) (44,5 mm) 18" (457 mm) 18 AWG FREE LEADS 75 (19,0 mm) **ELECTRICAL CONNECTION** 1/2-14 NPT ADJUSTMENT WHEEL 5.68 MAX (2) MOUNTING HOLES (144,3 mm) .210 (5,3 mm) DIAMETER 1.34 (34.0 mm) 1.13 (27,6 mm) (38,1 mm) 58/55 .38 (9,7 mm) DIAMETER (147,3 / 139,7 mm) TEMPERATURE PROBE 1.25 HEX (31,8 mm)

### **DESIGN PRINCIPLES**



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

WETTED PARTS: 300 STAINLESS STEEL TEMPERATURE PROBE				
ADJUSTABLE SET POINT RANGE		APPROXIMATE DEAD BAND		MAXIMUM
INCREASING TEMPERATURE DEGREES F (DEGREES C)	DECREASING	AT BOTTOM	AT TOP OF	PROBE
	TEMPERATURE	OF RANGE	RANGE	TEMPERATURE
	DEGREES F	DEGREES F	DEGREES F	DEGREES F
	(DEGREES C)	(DEGREES C)	(DEGREES C)	(DEGREES C)
+20° to +120°	+0° to +113°	20°	5°	+200°
(-7° to +49°)	(-18° to +45°)	(11°)	(4°)	(+93°)
+80° to +205°	+60° to +198°	20°	5°	+300°
(+27° to +96°)	(+16° to +92°)	(11°)	(4°)	(+149°)
+185° to +315°	+165° to +308°	20°	5°	+400°
(+85° to +157°)	(+74° to +153°)	(11°)	(4°)	(+204°)
+280° to +405°	+260° to +398°	20°	5°	+500°
(+138° to +207°)	(+127° to +203°)	(11°)	(4°)	(+260°)
	ADJUSTABLE SI  INCREASING TEMPERATURE DEGREES F (DEGREES C)  +20° to +120° (-7° to +49°)  +80° to +205° (+27° to +96°)  +185° to +315° (+85° to +157°)  +280° to +405°	ADJUSTABLE SET POINT RANGE  INCREASING TEMPERATURE DEGREES F (DEGREES C)  +20° to +120° (-7° to +49°)  +80° to +205° (+27° to +96°)  +185° to +315° (+85° to +157°)  +280° to +405°  +260° to +398°  +260° to +398°	ADJUSTABLE SET POINT RANGE  INCREASING TEMPERATURE DEGREES F (DEGREES C)  +20° to +120° (-7° to +49°)  -80° to +205° (+27° to +96°)  Temperature DEGREES C)  +60° to +113° (-18° to +45°)  -10° (+16° to +92°)  -10° (11°)  -10° -10° -10° -10° -10° -10° -10° -10	ADJUSTABLE SET POINT RANGE  INCREASING TEMPERATURE DEGREES F (DEGREES C)  +20° to +120° (-7° to +49°)  -40° to +113° (-18° to +45°)  -40° to +205° (+27° to +96°)  -40° to +198° (+16° to +92°)  -40° to +10° (-18° to +205° (+27° to +96°)  -40° to +198° (-18° to +205° (+16° to +92°)  -40° to +10° (-18° to +205° (+16° to +92°)  -40° to +10° (-18° to +45°)  -40° to +198° (-40° to +108° (-40° to +10

**EXTERNAL PROBE PRESSURE:** 

**OPTIONAL STANDARD** 

**MODIFIED SUFFIXES** 

7042: Stainless Steel Body

7090: 2 Meter Free Leads

7075: Electrical Connector with

4 Blades Conforms to DIN-43650 (SPDT only)

**7092:** 18 inch Teflon Free Leads (Low Temp Wire)

7008: Gold Contacts

System Pressure: 1250 PSIG (86 bar)

Order as separate line items. See accessory page for detailed information.

page for detailed information.

**113-34-2:** 1" NPT 316 SST 7.5" "U" Dim. **113-35-2:** 3/4" NPT 316 SST 7.5" "U" Dim.

### **CERTIFICATIONS**

**THERMOWELLS** 

Consult CCS website for complete certification and approval listing.

Proof Pressure: 1500 PSIG (103 bar)

### **ELECTRICAL ENCLOSURE CERTIFICATIONS**

CSA listed by Canadian Standard Association (CSA) Testing Laboratories (File No. LR22665) for enclosure (4) non-hazardous locations.

## OPTIONS MODEL CODES

M: DPDT Electrical

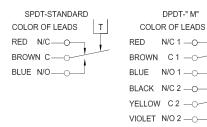
### ACCESSORIES - SOLD SEPARATELY

**69-102:** Mating DIN-43650 Connector **57-159:** Sealing DIN-46650 Gasket

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

## ELECTRICAL CHARACTERISTICS SCHEMATIC AND WIRING CODE RATING OF SWITCH ELEMENT

	AMPERES			
VOLTS	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				



### **HOW TO ORDER**

Follow these steps to build your part number:

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

(Ex: 6900T18-7008)

## TEMPERATURE CONVERSION

32 Deg F = 0 Deg C