



CustomControlSensors

# Hazardous Areas Adjustable Temperature Switch

## 6905TUE\* - Capillary

### 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)
- Certified explosion proof hermetically sealed electrical assembly for environmental protection.
- Various options for electrical ratings to meet a wide range of application requirements and media compatibility.

SHIPPING WEIGHT: APPROXIMATELY 35 OUNCES (992 GRAMS)

### SERIES:

6905TUE\*-7042

### ADJUSTABLE SET POINT RANGE: TEMPERATURE:

0° to 650°F  
-18° to 343°C

### OPERATING TEMPERATURE:

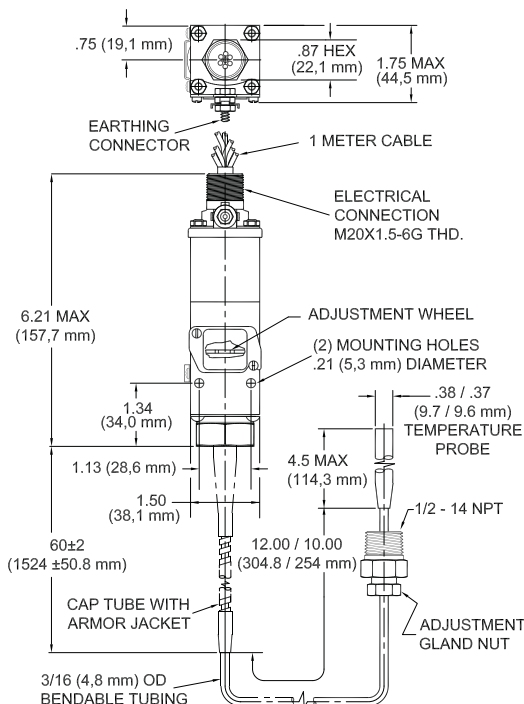
-40° to 186°F  
-40° to 86°C

### STANDARD FEATURES:

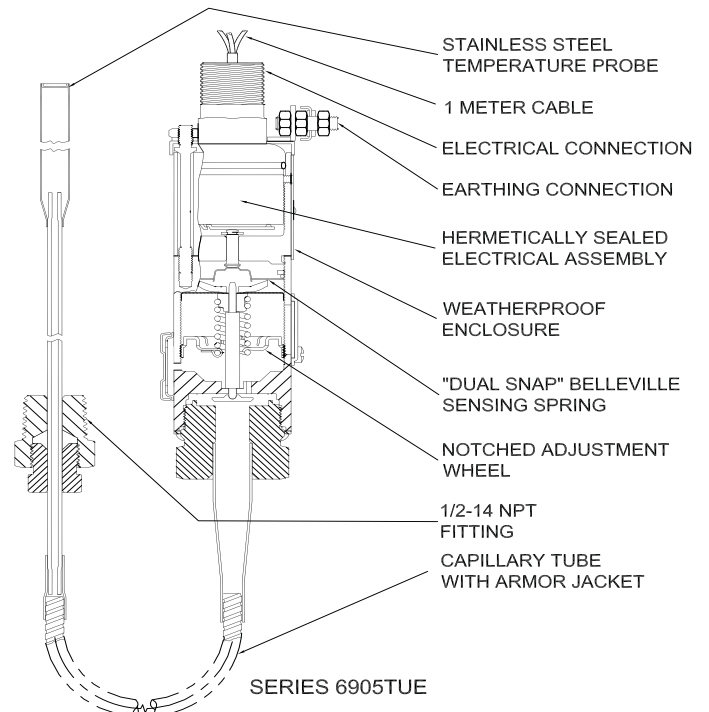
- Hermetically Sealed Electrical Assembly
- 316 SST Electrical Assembly
- 300 Series SST Housing
- M20 Electrical Connection
- ATEX - Baseefa Certified
- CE Mark
- NACE MR0175 / ISO 15156
- NEMA: 4, 7, 9,13 / IP66 & 67



### INSTALLATION DRAWING



### 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

SERIES 6905TUE*-7042	WETTED PARTS: 300 STAINLESS STEEL TEMPERATURE PROBE WITH 5' STAINLESS STEEL GRAPHITE AND LUBRICATED GLASS FIBER CAPILLARY TUBE				
	ADJUSTABLE SET POINT RANGE		APPROXIMATE DEAD BAND		MAXIMUM PROBE TEMPERATURE DEGREES F (DEGREES C)
	INCREASING TEMPERATURE DEGREES F (DEGREES C)	DECREASING TEMPERATURE DEGREES F (DEGREES C)	AT BOTTOM OF RANGE DEGREES F (DEGREES C)	AT TOP OF RANGE DEGREES F (DEGREES C)	
6905TUE*12-7042	+20° to +120° (-7° to +49°)	+0° to +113° (-18° to +45°)	20° (11°)	5° (4°)	+200° (+93°)
6905TUE*14-7042	+80° to +205° (+27° to +96°)	+60° to +198° (+16° to +92°)	20° (11°)	5° (4°)	+300° (+149°)
6905TUE*16-7042	+185° to +315° (+85° to +157°)	+165° to +308° (+74° to +153°)	20° (11°)	5° (4°)	+400° (+204°)
6905TUE*18-7042	+280° to +405° (+138° to +207°)	+260° to +398° (+127° to +203°)	20° (11°)	5° (4°)	+500° (+260°)
6905TUE*20-7042	+385° to +565° (196° to 296°)	+358° to +554° (+181° to +290°)	25° (15°)	10° (6°)	+650° (+343°)
6905TUE*22-7042	+465° to +650° (+241° to +343°)	+439° to +639° (+226° to +337°)	25° (15°)	10° (6°)	+700° (+371°)

EXTERNAL PROBE PRESSURE:

**System Pressure: 1250 PSIG (86 bar)      Proof Pressure: 1500 PSIG (103 bar)**

### 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: 6905TUE12-7043)

### TEMPERATURE CONVERSION

32 Deg F = 0 Deg C

### OPTIONAL STANDARD MODIFIED SUFFIXES

**7043:** Gold Contacts and Stainless Steel Body (-7042)

**7055:** 10' Capillary

**7056:** 15' Capillary

**7057:** 25' Capillary

### THERMOWELLS

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

**113-34-1:** 1" 316 SST 4.5" "U" Dim.

**113-34-2:** 1" 316 SST 7.5" "U" Dim.

**113-34-3:** 1" 316 SST 10.5" "U" Dim.

**113-34-4:** 1" 316 SST 13.5" "U" Dim.

**113-35-1:** 3/4" 316 SST 4.5" "U" Dim.

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

**113-35-3:** 3/4" 316 SST 10.5" "U" Dim.

**113-35-4:** 3/4" 316 SST 13.5" "U" Dim.

### ELECTRICAL ENCLOSURE CERTIFICATIONS

\* ATEX - Certificate No. Baseefa03ATEX0700X. Baseefa certified for potentially explosive atmospheres electrical assembly series. In compliance with EN60079-0:2006, EN 60079-1:2007, EN 61241-0:2006, EN 61241-1:2004.

### OPTIONS MODEL CODES

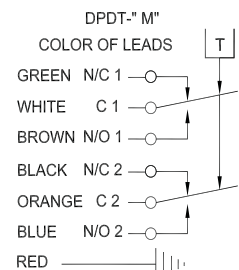
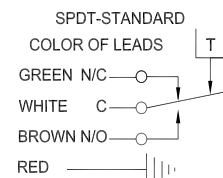
**M:** DPDT Electrical

### 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

\*Gold Contacts -7043 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.*