

## Series 100TC Temperature Switch/Internal Adjustment

Remote mount adjustable temperature switch with efficient Nega-Rate® Belleville spring mechanism and saturated vapor sensor for quick response and narrow deadband.

### Operating Temperature Data

Adjustable Range Number	Adjustable Set Point Range		Deadband† (approx) Bottom/Top		Proof Temperature	
	Increasing °F	Decreasing °F	°F	°C	°F	°C
B	-50 to +65	-69 to +62	19/3	11 / 2	250	121
D	+30 to +175	+7 to +172	23/3	13 / 2	400	204
F	+95 to +250	+70 to +247	25/3	14 / 2	450	232
H	+175 to +360	+145 to +355	30/5	17 / 3	500	260
J	+335 to +500	+305 to +495	30/5	17 / 3	600*	315
L	+485 to +720	+445 to +714	40/6	22 / 3	900*	482

†Deadband decreases as the adjustable set point is increased. For narrow deadband select set point in upper half of adjustable range.

\*Thermowell required for temperatures above 500°F.

### Standard Specifications

#### Electrical

Snap action electrical switch recognized by Underwriters' Laboratories, Inc. and CSA International

#### Electrical Connection

1/2 NPT female conduit connection with terminal block

#### Process Connection

1/2 NPT Male  
Remote mount Stainless steel 6' capillary with armor jacket, 10" minimum bendable tubing and 1/2" adjustable gland nut. Optional capillary lengths available.

#### Temperature Range

Ambient: -40°F to +180°F  
(-40°C to +82°C)

#### System Pressure

1500 psig maximum

#### Proof Pressure

2250 psig

#### Adjustment

Concealed wrench flat adjustment with range scale

#### Shipping Weight

Approximately 5 pounds



Order Miscellaneous Option "D"



Weather Proof (NEMA 4 and 13)

### Ordering Sequence — Select desired option for each category

#### OPTIONS

##### Wetted Material

**5** 300 series stainless steel, graphite filled non-asbestos packing

##### Adjustable Range

**B** -69°F dec. to +65°F inc. (-56°C dec. to 18°C inc.)  
**D** +7°F dec. to +175°F inc. (-14°C dec. to 79°C inc.)  
**F** +70°F dec. to +250°F inc. (21°C dec. to 121°C inc.)  
**H** +145°F dec. to +360°F inc. (63°C dec. to 182°C inc.)  
**J** +305°F dec. to +500°F inc. (152°C dec. to 260°C inc.)  
**L** +445°F dec. to +720°F inc. (229°C dec. to 382°C inc.)

##### Electrical Form

**C** 15 amp at 125 or 250 VAC; 1/8 hp at 125 VAC; 1/4 hp at 250 VAC;  
 .5 amp resistive, .04 amp inductive at 125 VDC  
**CC** 11 amp, 1/4 hp at 125 or 250 VAC; 5 amp resistive, 3 amp inductive at 28 VDC;  
 .5 amp resistive at 125 VDC  
**Z** 15 amp at 125 or 250 VAC; 1/4 hp at 125 VAC; 1/2 hp at 250 VAC; 1 amp resistive,  
 .5 amp inductive at 125 VDC

##### Enclosure

**3** Meets or exceeds the requirements of NEMA Type 3, 3R, 3S, 4, 4X and 13. IP65

##### Miscellaneous

**A** Epoxy paint exterior — extra protection for severe environments  
**D** SIL 3 approval and marking, per IEC61508 (includes FMEA report)  
**J** Annealed stainless steel port screws for H<sub>2</sub>S environments  
**L** Neon indicator light — 115 VAC  
**M** Gold electrical contacts for extremely low current applications (Not with Z Form)  
**P** 5-Pin Brad Harrison connector (Reduce AC electrical rating to 8 amps)  
 (Not for CC3 Electrical)  
**U** M20 x 1.5 Electrical Conduit Adapter  
**W** Stainless steel screws — exterior  
**X** CSA Certified and CE Mark

##### Optional Capillary Lengths

10', 15', 20' and 25' lengths available  
 (insert appropriate number at end of model number — see Example)

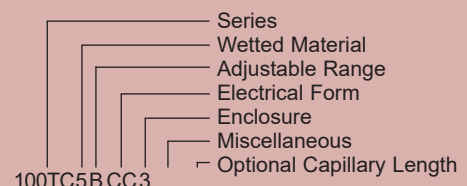
##### Special (Consult representative or factory)

- Thermowells
- Non-catalog adjustable range and/or set point and deadband

### Ordering Procedure

- When factory presetting is desired, stipulate set point, increasing or decreasing
- Insert available option number or letter designation as required

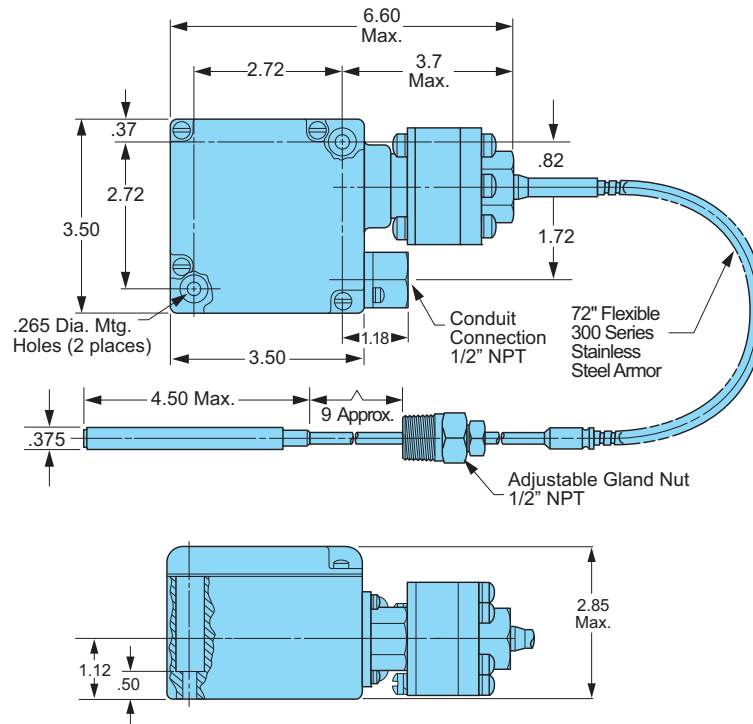
### Example



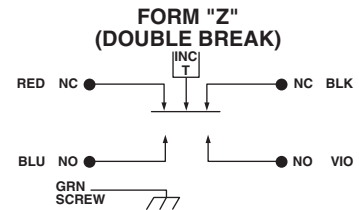
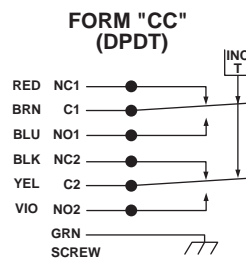
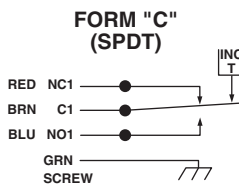
# Series 100TC Temperature Switch/Internal Adjustment

Field Adjustable  
-69°F to +925°F

## Envelope Dimensions



## Electrical Form



## Basic Principles of Design

