

# Neo-Dyn® Series 100TC Temperature Switch/Internal Adjustment



**Explosion Proof  
Hermetically Sealed  
(NEMA 4X, 7, 9 and 13)**

## DESCRIPTION

Remote mount adjustable temperature switch for use in hazardous areas. Utilizes the efficient Nega-Rate® Belleville spring mechanism and saturated vapor sensor for quick response.

## Operating Temperature Data

Adjustable Range Number	Adjustable Set Point Range		Deadband† (approximate) °F	Proof Temperature °F
	Increasing °F	Decreasing °F		
B	-50 to +65	-69 to +62	19/3	250
D	+30 to +175	+7 to +172	23/3	400
F	+95 to +250	+70 to +247	25/3	450
H	+175 to +360	+145 to +355	30/5	500
J	+335 to +500	+305 to +495	30/5	600*
L	+485 to +720	+445 to +714	40/6	900*
N	+645 to +925	+600 to +919	45/6	1200*

†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 assembly listed by Underwriters' Laboratories, Inc., Factory Mutual and CSA International

### Electrical Connection

½ NPT male conduit connection with PVC insulated 18 AWG, 18" long leads

### Process Connection

½ NPT Male  
Remote mount. Stainless steel 6' capillary with armor jacket, 10" minimum bendable tubing and ½" adjustable gland nut. Optional capillary lengths available.

### Temperature Range

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

See Electrical Assembly specification sheet for Temperature Class Ratings.

### System Pressure

1500 psig maximum

### Proof Pressure

2250 psig

### Adjustment

Concealed wrench flat adjustment with range scale

### Shipping Weight

Approximately 5 pounds

## Ordering Sequence — Select desired option for each category

### OPTIONS

#### Wetted Material

**5** 316 stainless steel, graphite filled non-asbestos packing

#### Adjustable Range

**B** -69°F dec. to +65°F inc.  
**D** +7°F dec. to +175°F inc.  
**F** +70°F dec. to +250°F inc.  
**H** +145°F dec. to +360°F inc.  
**J** +305°F dec. to +500°F inc.  
**L** +445°F dec. to +720°F inc.  
**N** +600°F dec. to +925°F inc.

#### Electrical Form

**C** 11 amp, ¼ hp at 125 or 250 VAC; 5 amp resistive, 3 amp inductive at 28 VDC;  
.5 amp resistive at 125 VDC  
**CC** 11 amp, ¼ hp at 125 or 250 VAC; 5 amp resistive, 3 amp inductive at 28 VDC;  
.5 amp resistive at 125 VDC

#### Enclosure

**6** Explosion proof, hermetically-sealed electrical assembly, leads factory sealed, P/N 057-0770 (C Form) and P/N 057-0771 (CC Form); **Underwriters' Laboratories, Inc.** listed (File E56677), **CSA International** certified (File LR34146), and **Factory Mutual** approved (File J.I.1R5A9.AE) for Division 1 and 2; Class I, Groups A, B, C and D; Class II, Groups E, F and G Hazardous Locations; NEMA type 7 and 9.

#### Miscellaneous

**A** Epoxy paint exterior — extra protection for severe environments  
**I** ¾ NPT conduit box with terminal strip (Groups C & D only)  
**J** Annealed stainless steel port screws for H<sub>2</sub>S environments  
**M** Gold electrical contacts for extremely low current applications  
**N** ATEX approval with CE Mark  
**R** 72" Electrical free leads  
**W** Stainless steel screws — exterior

#### 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

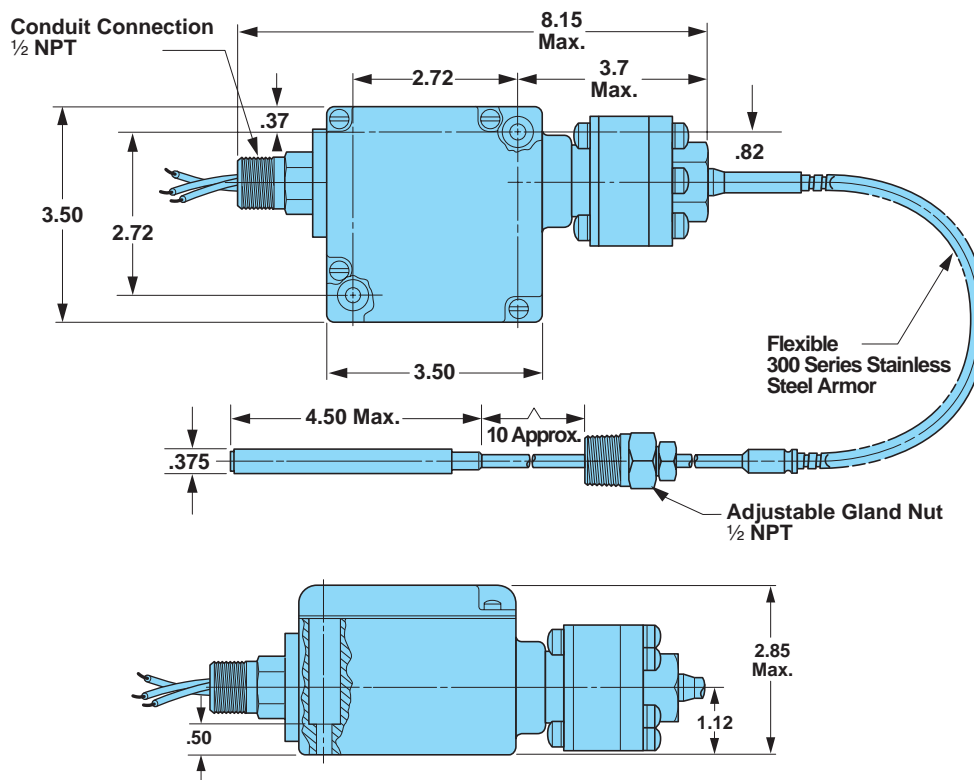
## Ordering Procedure

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

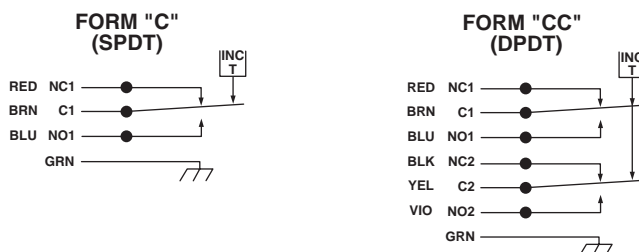
## Example

Series  
Wetted Material  
Adjustable Range  
Electrical Form  
Enclosure  
Miscellaneous  
Optional Capillary Length  
100TC5BCC6\_ \_ \_

## Envelope Dimensions



## Electrical Form



## Basic Principles of Design

