

Series 100TC Temperature Switch/Internal Adjustment

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† (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 assemblies, Part Numbers 057-0770 & 057-0772 (Form C) and 057-0771 & 057-0773 (Form CC), are listed by Underwriters' Laboratories, Inc., CSA International and NCC (INMETRO). See the miscellaneous option N for additional listings.

Electrical Connection

1/2 NPT male conduit connection with PVC insulated 18 AWG, 18" long leads

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)

See Electrical Assembly specification sheet for Temperature Class Ratings.

System Pressure: 1500 psig max.

Proof Pressure: 2250 psig

Adjustment

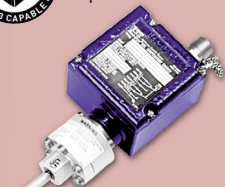
Concealed wrench flat adjustment with range scale

Shipping Weight:

Approximately 5 pounds



Order Miscellaneous Option "D"



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

Ordering Sequence — Select desired option for each category

OPTIONS

Wetted Material

5 300 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 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
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

Enclosure

6 Includes an explosion proof, hermetically-sealed electrical assembly. EX d IIC. Division 1 and 2, Class I, Groups A, B, C, and D; Class II, Groups E, F, and G. NEMA 4X, 7, and 9; IP66. Leads are factory sealed and Pressure Switches are Dual Seal Certified.

Miscellaneous

A Epoxy paint exterior — extra protection for severe environments
D SIL 3 approval and marking, per IEC61508 (includes FMEA report)
I 3/4 NPT conduit box with terminal strip (Groups C & D only, not available with N option)
J Annealed stainless steel port screws for H₂S environments
M Gold electrical contacts for extremely low current applications (1 Amp at 125 VAC; 1 Amp Res, 0.5 Amp Ind. at 28 VDC) - (Not with Z Form)
N ATEX and IECEx with CE Mark
R 72" Electrical free leads
U M20 x 1.5 Electrical Conduit Adapter
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

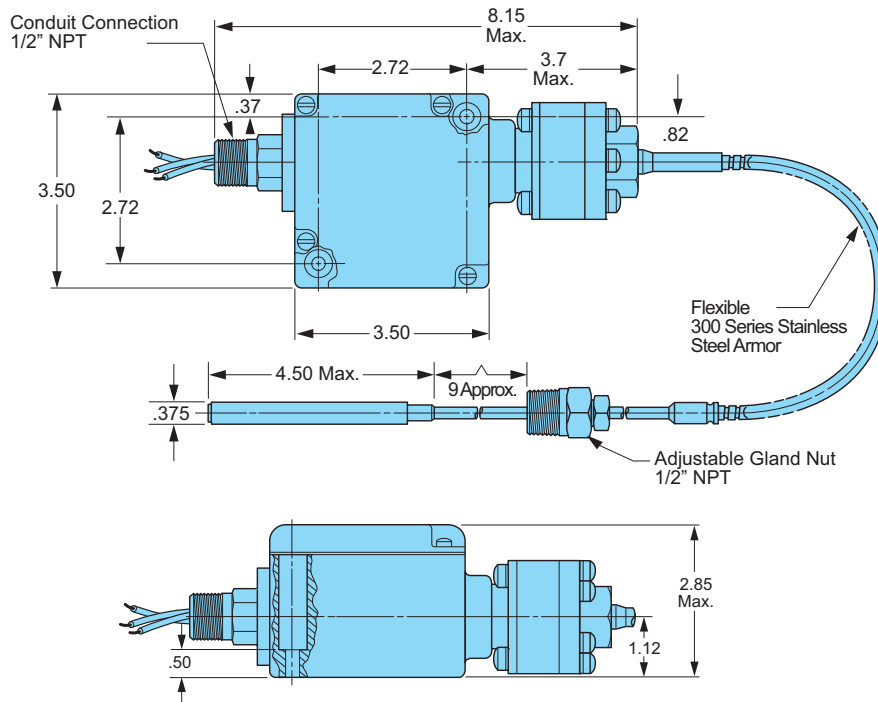
Series
Wetted Material
Adjustable Range
Electrical Form
Enclosure
Miscellaneous
Optional Capillary Length

100TC5B CC6 _____

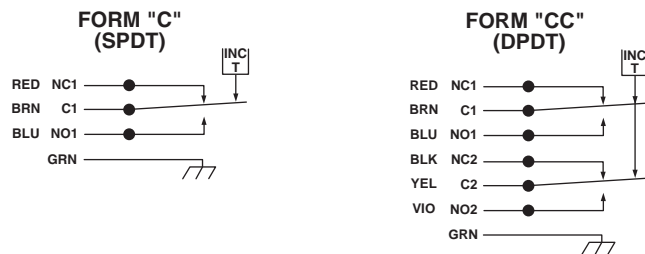
Series 100TC Temperature Switch/Internal Adjustment

Field Adjustable
-69°F to +925°F

Envelope Dimensions



Electrical Form



Basic Principles of Design

