EXPLOSION PROOF TYPE INDICATING TEMPERATURE SWITCH MODEL : T990 SERIES

SERVICE INTENDED
T990 Series, Temperature Switch, are installed with micro contact suitable for corrosive fluid. Temperature measurement deadband is fixed.

ENCLOSURE CLASS
Ex d IIb+H_2 T6

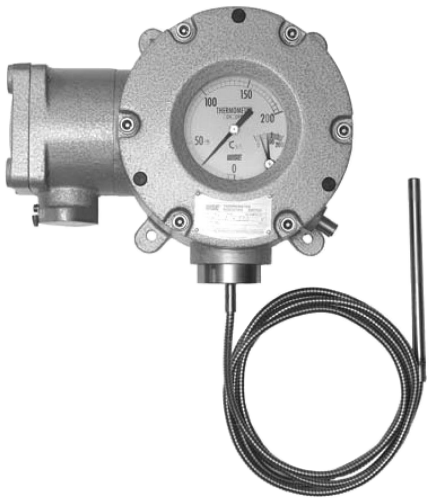
NOMINAL DIAMETER
125mm

REPEATABILITY
±1.0% of Adjustable Range

ACCURACY
±2.0% of Full Scale

TEMPERATURE ELEMENT
Liquid Filled
Organic Gas : -50°C to 600°C

WORKING RANGE
Maximum Scale Value



Standard Features

LOCATION OF STEM
Bottom Connection,Surface, Case Mounting

CASE & COVER
Silver gray Finished Aluminium(ALDC)

CAPILLARY
Capillary : 1.6/0.2mm, 316SS
Armored tube : 6.6/4.5mm, 304SS

CONTACT
Micro Contact Type
One SPDT or Two SPDT
One DPDT

CONTACT RATING
-AC 125V/250V, 15A and DC 30V, 2A
DC 125V, 0.5A for Resistance Load
-AC 125V/250V, 15A and DC 30V, 1A
DC 125V, 0.05A for Inductive Load

CONTACTS
Micro Contact Type
One SPDT (Model : T953-1B3)
Two SPDT (Model : T953-2B3)

STEM OUT DIA.
8.0, 10.0 and 12.0mm
316SS

STEM CONNECTION
3/8", 1/2", 3/4" PT or NPT

OPTION
Special Accuracy, ±1.0% of Full Scale

ORDERING INFORMATION

BASE MODEL

T990 : EXPLOSION PROOF INDICATING TEMPERATURE SWITCH

NOMINAL DIAMETER

5 : 125mm

MOUNTING

B : Bottom Connection, Surface, Case Mounting

ALARM TYPE

1 : High
2 : Low
3 : High & Low
4 : High & H/High
5 : Low & L/Low

PROCESS CONNECTION

D : 3/8”
E : 1/2”
F : 3/4

CONNECTION TYPE (CF : Compression Fitting)

C : PT
D : NPT
E : CF + PT
F : CF + NPT

STEM OUT DIA.

2 : 8.0mm
3 : 10.0mm
4 : 12.0mm (Standard)

RANGE(Refer to Scale Range Table)

XXX

CAPILLARY LENGTH

P : 2 metre
Q : 3 metre
S : 5 metre
V : 8 metre
X : 10 metre
Z : Other

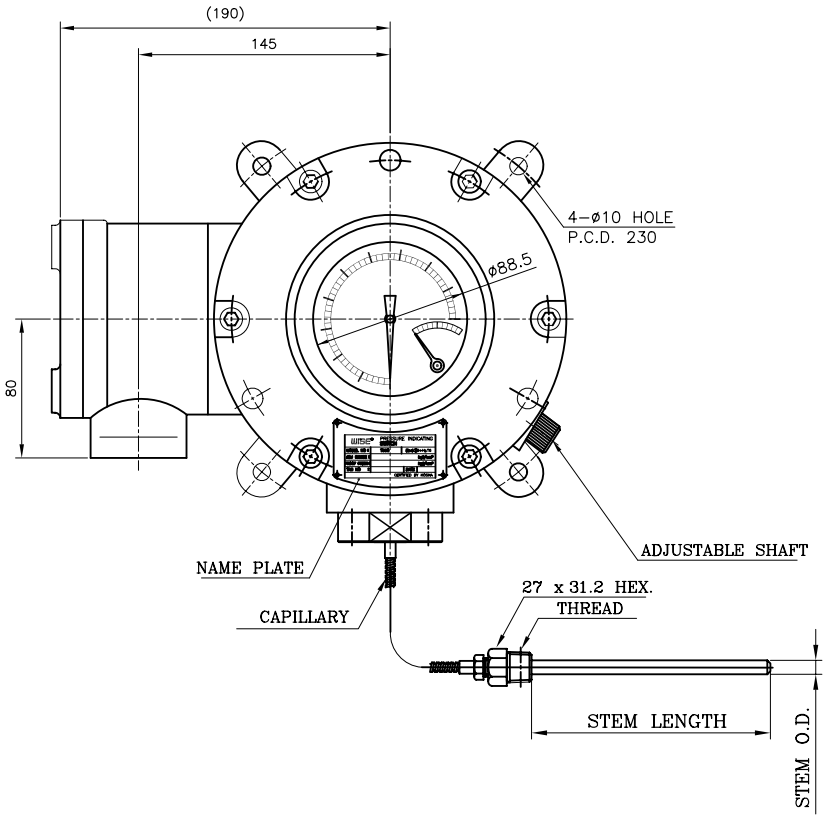
ACCESSORIES

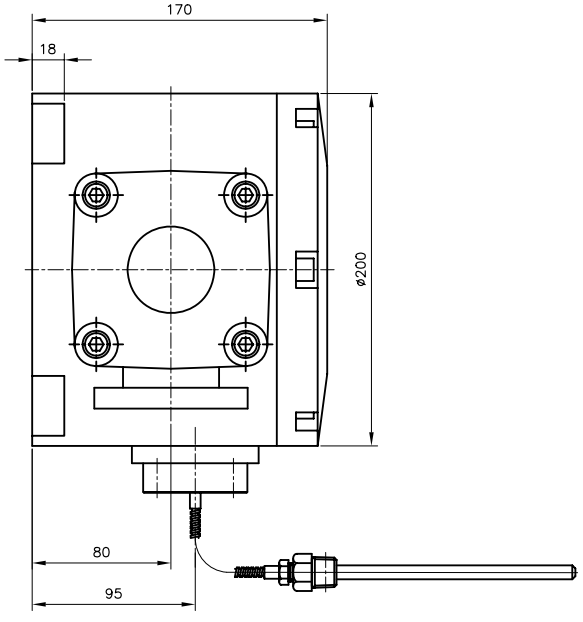
0 : None
1 : Thermowell
2 : Special Accuracy (±1.0% F.S.)
3 : Thermowell & Special Accuracy

T991	5	B	1	E	C	3	XXX	P	1

SAMPLE MODEL NUMBER

T990 : TYPE OF MOUNTING





TEMPERATURE SWITCH
A bi-stable electro mechanical device than actuates/ deactuates one or more electrical switching element at a predetermined discrete temperature upon rising or falling.

ADJUSTABLE RANGE
The span of temperature between upper and lowert limited within which the temperature switch can be adjusted to actuate/deactuate.
It is expressed for increasing temperature.

SET POINT
That discrete temperature at which the temperature switch is adjusted to actuate/deactuate on rising or falling temperature. It must fall with the Adjustable Range and be called out as increasing.

DEADBAND
The difference in temperature between the increasing Set Point and decreasing Set Point.

PROOF PRESSURE
The maximum input temperature that can be continuously applied to the pressure switch without causing permanent change of set point, leakage or or falling. material failure.

BURST TEMPERATURE
The maximum input temperature that can be con-tenuously applied to the temperature switch without causing leakage or catastrophic material failure. Permanent change of Set Point may occur, or the device may be rendered inoperative.

REPEATABILITY
The ability of a temperature switch to successively operate at a Setpoint that is approached from a starting point in the same direction and returns to the starting point over three consecutive cycles to establish a temperature profile.

TEMPERATURE RANGES TABLE

Code	Adjustable Setting Range (°C)	Maximum Working Temperature (°C)	Minimum Stem Length (mm)			Standard Stem Length (mm)		
			8.0	10.0	12.0	8.0	10.0	12.0
032	-50~5	35	100	85	65	200	130	130
069	-5~65	75	100	88	65	200	130	130
104	20~90	95	100	85	65	200	150	130
106	50~120	130	100	85	65	200	130	130
114	100~170	180	100	85	65	200	130	130
119	150~220	230	100	85	65	200	130	130
120	190~260	270	100	85	65	200	130	130
124	230~300	310	100	85	65	200	130	130
38	-50~150	250	100	85	65	200	130	130

STEM LENGTH

Code	1	2	3	4	5	6	7	8	9	A	B
Length(mm)	50	60	70	80	90	100	120	130	150	200	225

Code	C	D	E	F	G	H	J	K	L	M	N
Length(mm)	250	275	300	350	375	400	450	500	1000	1500	2000

Code	P	Z
Length(mm)	2000	Longer than 2000

RATED VOLTAGE	RESISTANCE LOAD		INDUCTIVE LOAD	
	NC	NO	NC	NO
125V AC	15 (10)		15 (10)	
250V AC	15 (10)		15 (10)	
480V AC	10		10	
8V DC	15		15	
14V DC	15		10	
30V DC	2		1	
125V DC	0.4		0.03	
250V DC	0.2		0.02	

SPDT SWITCHING ELEMENT

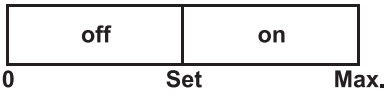
Single-Pole, Double throw(SPDT) has three connection : C-Common, NO-Normally open and NC-Normally closed, which allows the switching element to be electrically to the circuit NO or NC state.

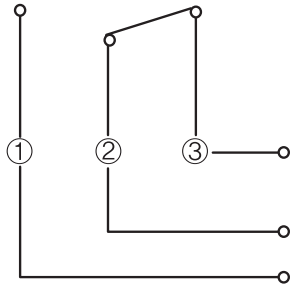
DPDT SWITCHING ELEMENT

Double-Pole, Double Throw(DPDT) is two SPDT switching elements operated by a common lever assembly so simultaneous actuation / deactuation occurs at both the increasing and the decreasing set point. Two independent electrical circuits can be switched, i.e. one AC and one DC.

Single Type

When the input temperature reach the upper or lower limit set point,
The circuit is closed and opened.

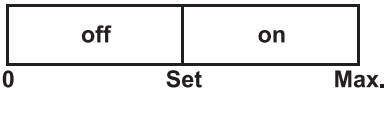


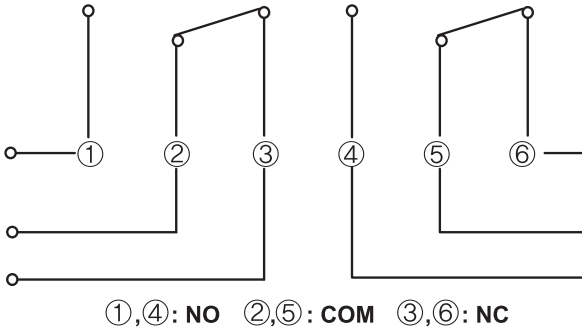


① : NO ② : COM ③ : NC

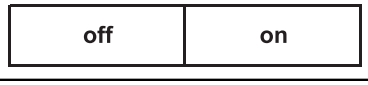
Double Type

When the input temperature reach the upper or lower limit set point,
Two circuit are simultaneousely closed and opened.





①,④: NO ②,⑤: COM ③,⑥: NC



Standard Features

Code	Scale Range (°C)	Scale Spacing (°C)	Minimum Stem Length (mm)			Standard Stem Length (mm)		
			8.0	10.0	12.0	8.0	10.0	12.0
032	-50~50	2	100	85	65	200	130	130
037	-50~100	5	100	85	65	200	130	130
054	-30~50	2	100	85	65	200	150	130
059	-30~100	2	100	85	65	200	130	130
061	-30~120	5	100	85	65	200	130	130
069	-20~50	2	100	85	65	200	130	130
074	-20~100	2	100	85	65	200	130	130
079	-20~150	5	100	85	65	200	130	130
084	-10~150	1	100	85	65	200	130	210
099	0~50	1	100	85	65	200	130	210
100	0~60	1	100	85	65	200	130	190
101	0~70	2	100	85	65	200	130	130
102	0~80	2	100	85	65	200	130	130
104	0~100	2	100	85	65	200	130	130
106	0~120	2	100	85	65	200	130	130
109	0~150	5	100	85	65	200	130	130
114	0~200	5	100	85	65	200	130	130
119	0~250	5	100	85	65	200	130	130
124	0~300	5	100	85	40	200	130	130
129	0~350	5	100	45	40	200	130	130
134	0~400	10	100	45	40	200	130	130
144	0~500	10	100	45	40	200	130	130
154	0~600	10	100	45	40	200	130	130
000	Special Range	Please Contact to Technical Dept.						