

# TEMPERATURE CONTROLS

## GENERAL PURPOSE

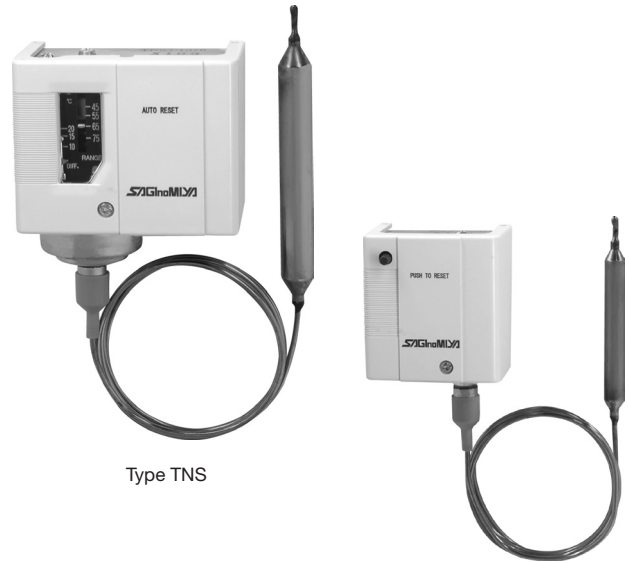
Type TNS, CNS & INS

SAGHOMIYA

### GENERAL DESCRIPTION

- Type TNS is provided with a differential adjustable mechanism.
- Type CNS is provided with a fixed differential. Also manual reset models are available.
- Type INS provides automatic High-cut temperature control with manual reset.
- Narrow and adjustable temperature differential for more accurate control model Type BNS is available.
- Available drip proof enclosure for marine application or explosion proof enclosure for special application.
- A mounting bracket is supplied as standard.
- With SPDT contact mechanism.
- IP44 with upper lid (option).

CE mark applicable (available upon request)  
UL recognized (available upon request)



Type TNS

Type INS

### TYPE NUMBER SELECTION (SPECIFICATIONS)

Type TNS – Automatic Reset Type

Unit: °C

Catalog No.	Range		Differential		Factory Setting		Limit Temp.	Bulb Size (mm)		Usage Condition	Wt. (kg)						
	Min.	Max.	Min.	Max.	Off (On)	On (Off)		φ A	B								
TNS-C100X	-25	0	Bottom 4.5 Top 3	15	-18	-15	70	6	80	Ts > Tb	0.34						
TNS-C114X	-15	15			-3	0											
TNS-C134X	0	35			17	20											
TNS-C1070X	45	75	4	20	61	65	115	12.7	100	Ts < Tb	0.37						
TNS-C1100X	65	105	5		70	75						140					
TNS-C1120X	95	125			110	115						160					
TNS-C1150X	115	150			140	145						180					
TNS-C1010XC	-45	10			4	-4						0	45				
TNS-C1034XC	-20	35	16			20						70					
TNS-C1070XC	15	70	36			40						115					
TNS-C114XQ009	-30	15	Bottom 5 Top 2		15	-8						-5	120	Capillary Tube Type		Ts > Tb	
TNS-C114XQ010						Capillary Coil Type											
TNS-C134XQ009						Capillary Tube Type											
TNS-C134XQ010				Capillary Coil Type													

- Bottom...Differential when the switch is set at minimum of range.
- Top...Differential when the switch is set at maximum of range.
- Ts...Ambient temp. of switch body. · Tb...Sensing bulb temp.
- Drip proof models: Available upon request. (Refer to page 53.)
- Enclosure: IP20

Type CNS – Automatic Reset Type

Unit: °C

Catalog No.	Range		Differential	Factory Setting		Limit Temp.	Bulb Size (mm)		Usage Condition	Wt. (kg)
	Min.	Max.		Off	On		φ A	B		
CNS-C115X	-35	-15	Bottom 4 Top 3(fixed)	-28	-25	70	6	80	Ts > Tb	0.34
CNS-C100X	-25	0	approx. 3 (fixed)	-18	-15					
CNS-C114X	-15	15	Bottom 4 Top 3(fixed)	-3	0					
CNS-C134X	0	35		17	20					

- Bottom...Differential when the switch is set at minimum of range.
- Top...Differential when the switch is set at maximum of range.
- Ts...Ambient temp. of switch body. · Tb...Sensing bulb temp.
- Enclosure: IP20

TYPE CNS – Manual Reset Type

Unit: °C

Catalog No.	Range		Manual Reset	* Factory Setting		Limit Temp.	Bulb Size (mm)		Usage Condition	Wt. (kg)
	Min.	Max.		Off	On		φ A	B		
CNS-C115XM2	-35	-15	Automatic operation on temperature decrease and manual reset on temperature decrease	-28	Manual Reset	70	6	80	Ts > TB	0.34
CNS-C100XM2	-25	0		-18						
CNS-C114XM2	-15	15		-3						
CNS-C134XM2	0	35		17						

- \* Based on the 1-3 terminal connection.
- Ts...Ambient temp. of switch body. • TB...Sensing bulb temp.
- Enclosure: IP20

TYPE INS – Manual Reset Type

Unit: °C

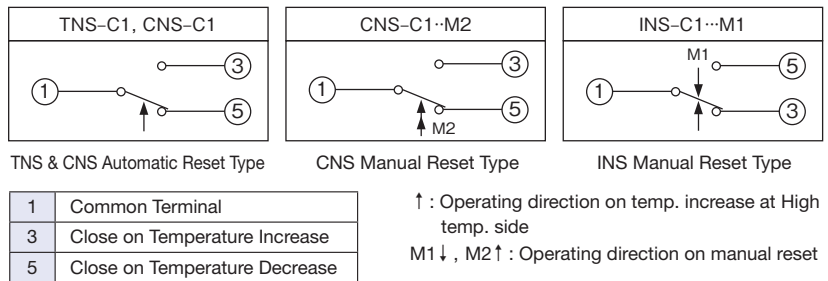
Catalog No.	Range		Manual Reset	* Factory Setting		Limit Temp.	Bulb Size (mm)		Usage Condition	Wt. (kg)	
	Min.	Max.		Off	On		φ A	B			
INS-C1070XM1	25	75	Automatic operation on temperature increase and manual reset on temperature decrease	Manual Reset	65	115	9.5	80	Ts < TB	0.26	
INS-C1120XM1	70	120			115						160
INS-C1150XM1	115	150			140						180

- \* Based on the 1-3 terminal connection.
- Ts...Ambient temp. of switch body. • TB...Sensing bulb temp.
- Enclosure: IP20

ELECTRICAL RATINGS

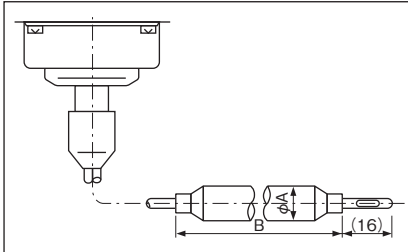
Rated Current (A)	Rated Voltage (V)		Power Factor (cos φ)	125/250 V. AC
	Non-Inductive Current	Inductive Current		
Full Load	1	0.75	12	72
	Inrush Current	-		

CONTACT FUNCTIONS

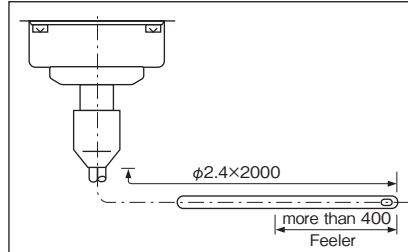


SENSING ELEMENT STYLE

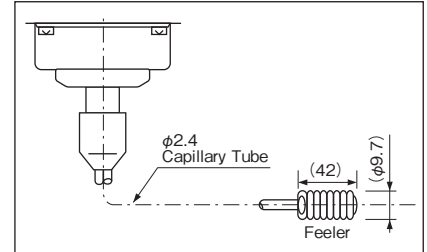
Sensing Bulb Type



Capillary Tube Type



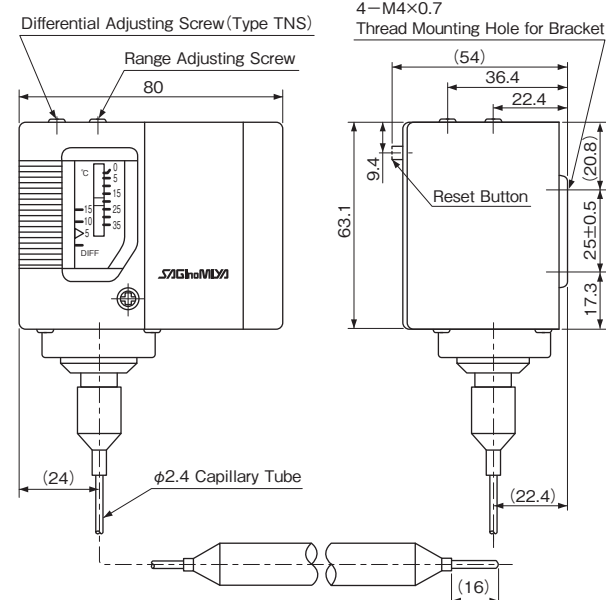
Capillary Coil Type



Standard: 1000mm Capillary tube. Other capillary length are available upon request.

DIMENSIONS

Type TNS, CNS



Type INS

