TN3000-Temperature Sensor With LED Digital Dislpay

- **Smart product**
- **4-digit LED display**
- **All-metal housing**
- **PNP/NPN programmable**
- **Rotatable indicator**

TN3000 measures the temperature with a high-accuracy sensor and output signal is processed to standard electricai signal for outputing and dispiaying.

All-metal housing; rotatable highlight LED display; dual keys design and friendly menu; multiple process connections selectable: 3 30˚ rotatable indicator.

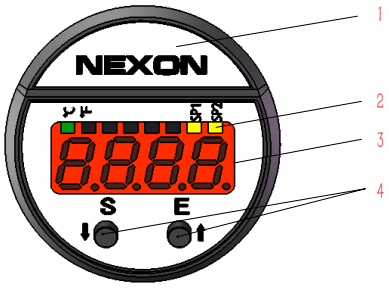
Specifications

Measuring Range	
TN3000	-50...125℃
Power Supply	12...30Vdc
Current Consumption	≤30mA (power supply 24Vdc, no-load)
Switching Output	
Output	Push-pull (compatible with PNP/NPN);NC/NO configurable
S1, S2 Output Current	<500mA
Response Time	<10ms
Voltage Drop	<1V
Accuracy	≤±0.5% of F.S.
Current Analog Output	
Output	3-wire 4...20mA
Load RA	RA≤0.5KΩ
Linearity	≤±0.5% of F.S.
Voltage Analog Output	
Output	3-wire 0...5V
Load RA	RA>10KΩ
Linearity	≤±0.5% of F.S.
Wiring Protection	Reverse polarity,overvoltage and short-circuit
Display	
Design	8mm height, red 4-digit LED
Display Range	-1999...9999
Accuracy	≤±0.5% of F.S.
Stability (Drift/Year)	≤±0.3% of F.S.
Temperature	
Medium	-50...125℃
Ambient	-40...85℃
Storage	-40...100℃
Probe Pressure Rating	200bar
Material	
Dislpay Head	Zinc Alloy
Housing	304 stainless steel
Wetted Parts	316 stainless steel
Protection Class	IP67
Electrical Connection	M12×1plug
Process Connection	G1/4 external thread ED seal

Applications

- Hydraulics and pneumatics
- Circulating water/cooling liquids
- Machinery manufacturing
- Oil/Gas industry
- Water treatment

Set Panel



1 - LOGO
2 - 8 state lights
3 - 4-digit LED display window
4 - Keys

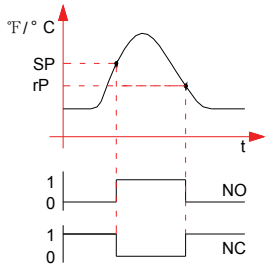
S + E	Press and hold 2 seconds to enter setting mode/verification
S	Shift down the menu/change values
E	Shift up the menu/change the setting bit

Functional Specifications

Hysteresis Mode

The hysteresis keeps the switching output stable if temperature fluctuates around the setpoint. Output switches when rising temperature reaches set point (SP1); As temperature falls, the output switches back only if the reset point (rP1) is reached.

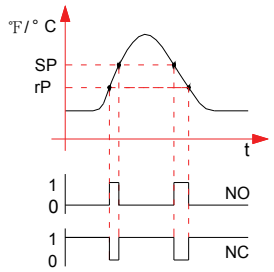
Hysteresis Mode



Window Mode

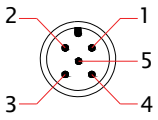
The window function allows the monitoring of a defined range. If the temperature is between set point (SP1) and reset point (rP1),the output is activated (NO), otherwise it is deactivated(NC).

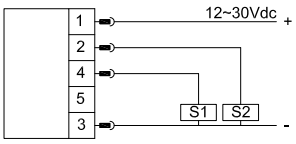
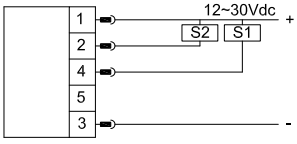
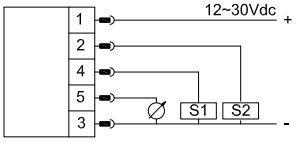
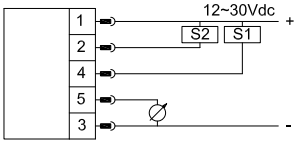
Window Mode



Wiring

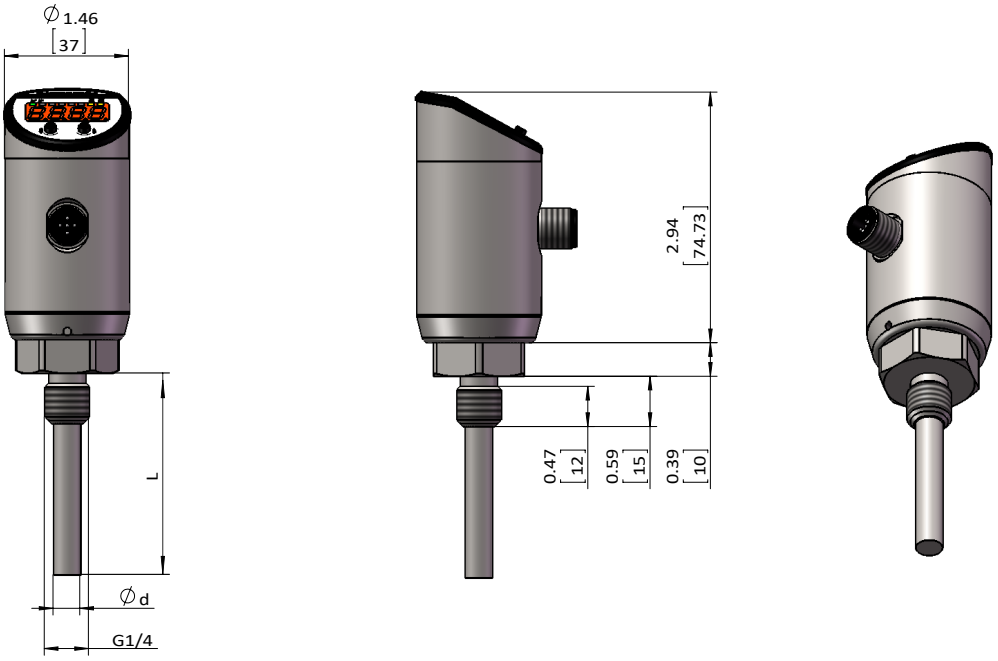
Signal	Plug	Cable
U+	1	Brown
U-	3	Blue
Switching output 1	4	Black
Switching output 2	2	White
Analog output (Currentor Voltage)	5	Gray



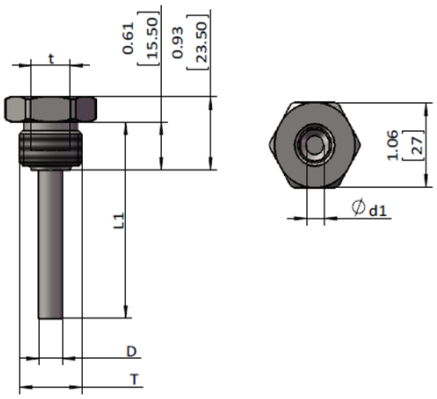
PNP output	NPN output
2x PNP 	2x NPN 
2x PNP + analog output 	2x NPN + analog output 

TEMPERATURE

Dimensions in Inches (mm)



Probe matching tube size



T	t	d	d1	D	L1
G1/2	G1/4	8	9	12	L-15

Model Number

OrderNO.	Type	Rod Length mm	Temperature ℃	Output type mA/V
TN002,5	TN3000/21G14MSM010D8	25	Standard form -50...125℃	2 switch output Current Output 3-wire（4...20mA)
TN005,0	TN3000/21G14MSM035D8	50		
TN0010	TN3000/21G14MSM085D8	100		
TN0015	TN3000/21G14MSM135D8	150		
TN0025	TN3000/21G14MSM235D8	250		
TN0035	TN3000/21G14MSM335D8	350		
TN012,5	TN3000/22G14MSM010D8	25		2 switch output Voltage Output 3-wire（0...5V)
TN015,0	TN3000/22G14MSM035D8	50		
TN0110	TN3000/22G14MSM085D8	100		
TN0115	TN3000/22G14MSM135D8	150		
TN0125	TN3000/22G14MSM235D8	250		
TN0135	TN3000/22G14MSM335D8	350		

Note: Other range, process connection, electrical connection can be customized