



Model: HTM5100 Smart temperature switch V23.1.0

Manufacturer: Nanjing Hangjia Electronic Technology Co., Ltd.

Overview

The HTM5100 intelligent temperature switch uses high-quality and high-stability PT100 or PT1000 as the sensing element, coupled with a dedicated electronic conditioning circuit, and is assembled and produced through strict technological processes. This product has an on-site display and can output one channel of 4~20mA analog value and can also output two channels of electronic switching value or one channel of relay switching value. This product has various process interfaces and supports thread installation or chuck installation interfaces.

This product integrates temperature measurement, display, output and control. It is flexible to use, simple to operate, safe and reliable. It is widely used in various types of automated machinery and equipment, environmental protection, petrochemical, water treatment and other industries.

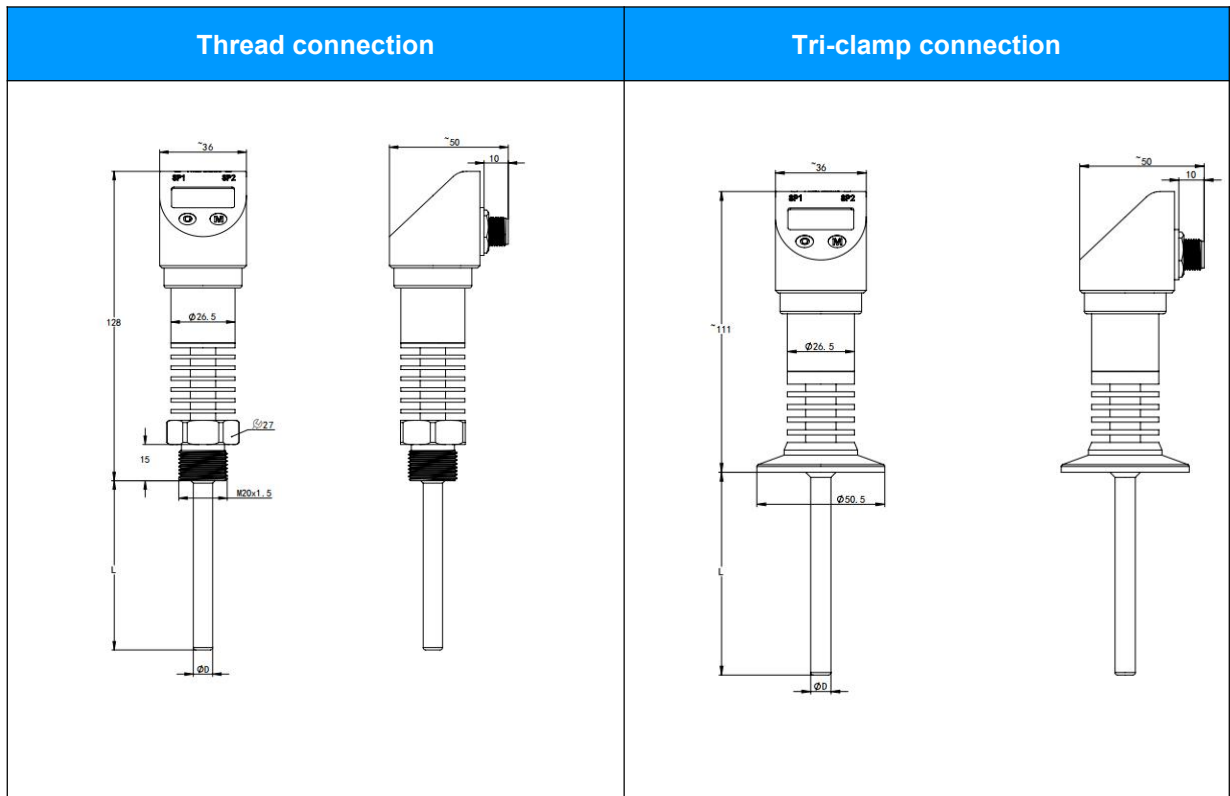
Features

- ◆ 4-digit LED or LCD display
- ◆ Supports kinds of switch signal
- ◆ Button adjustment and on-site setting of various parameters, easy to operate.
- ◆ Shell is equipped with led for easy observation.
- ◆ Supports various process connections such as threads and clamps.

Technical Parameters

Measuring temperature range	-50...0 ~ 100...500℃
Measuring medium	various liquid, gas compatible with contact materials
Output Signal	4~20mA_{DC} / V_s=12 ~ 32V_{DC} 4~20mA_{DC} + Two electronic switch outputs / V_s=12 ~ 32V_{DC} 4~20mA_{DC} + One way relay switch output / V_s=18 ~ 32V_{DC}
Accuracy	±0.5℃ (-50℃≤Measuring Range≤100℃) ±1.0℃ (-50℃≤Measuring Range≤300℃) ±3.0℃ (-50℃≤Measuring Range≤500℃)
Transistor switch alarm	Switch type: NPN or PNP load capacity: ≤300mA_{DC} 24V_{DC} Switch life: > 100 Thousands of times
Relay switch alarm	Switch type: Relay load capacity: ≤1A_{DC} 24V_{DC} Switch life: about 10 thousands of times
LED display	4-digit Digital Tube Display range: -1999 ~ 9999
LCD display	Simulation progress bar display; Unit display. Display range: -1999 ~ 9999
Temperature range	Working temperature: -40 ~ 70℃ (LED display); -20 ~ 60℃ (LCD display); Medium temperature: -40 ~ 125℃ Storage temperature: -30 ~ 70℃
Protection Grade	IP65

Structure Drawing (unit: mm)



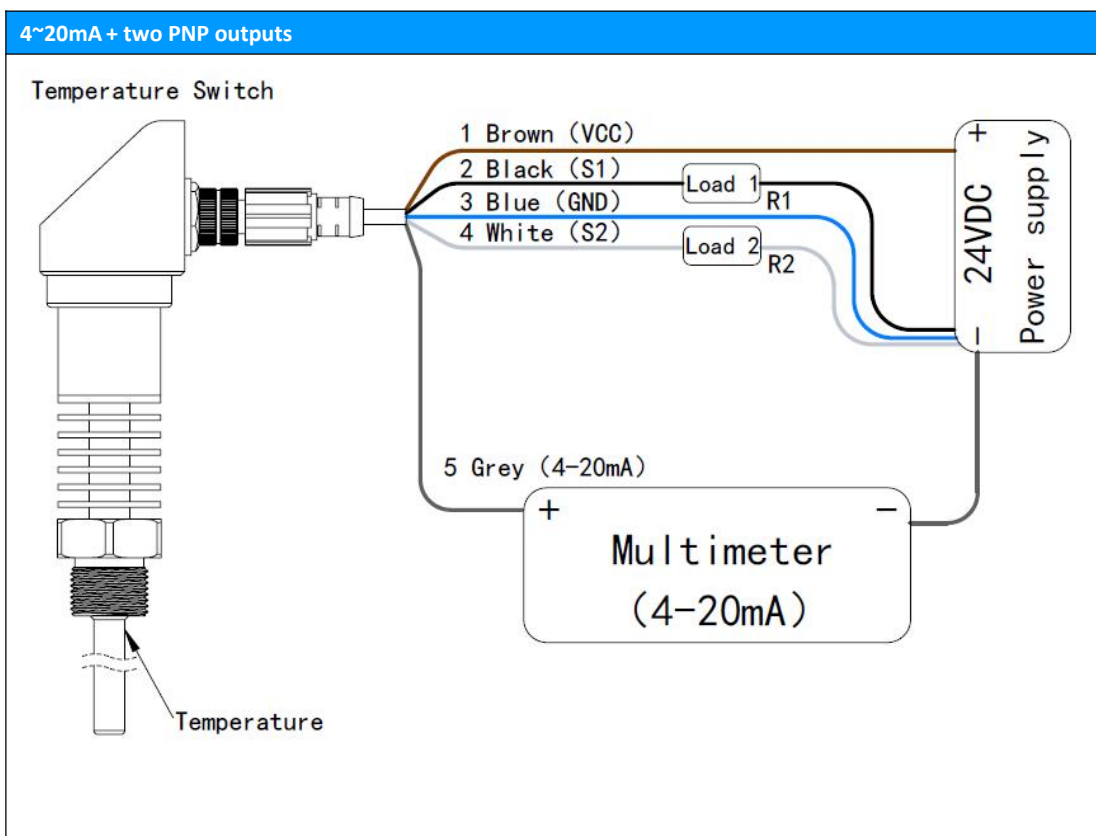
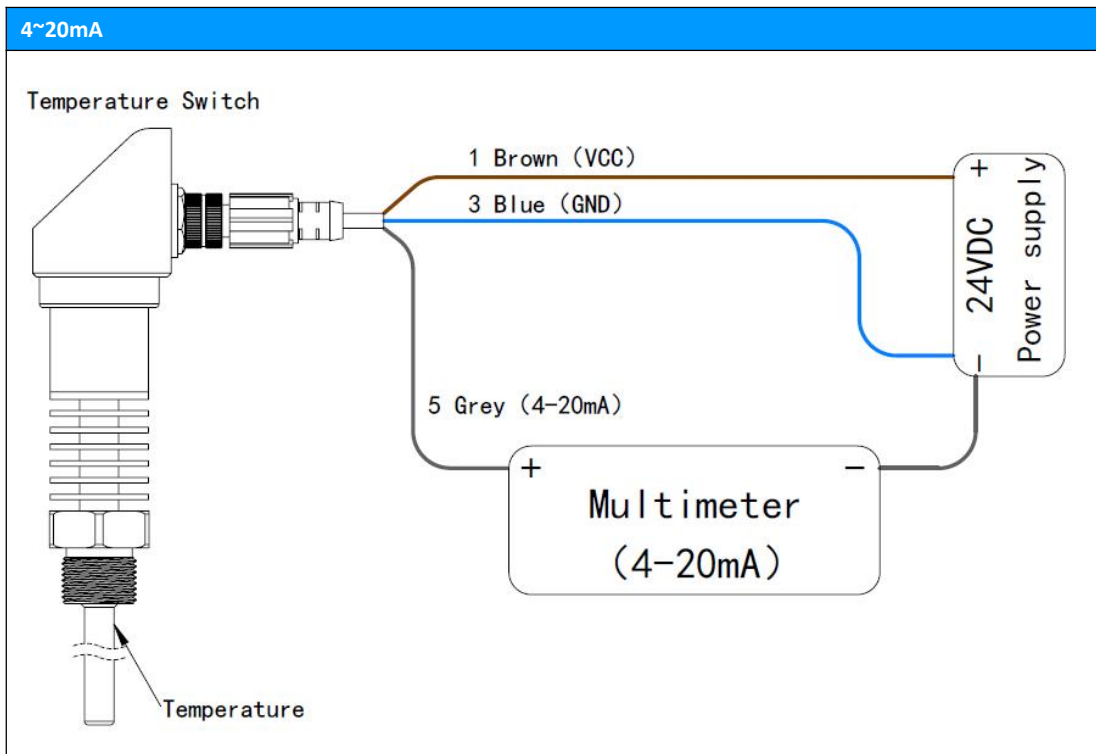
Housing materials

Code	Part	Note
S4	temperature probe	Stainless steel 304
S6		Stainless steel 316L

Electrical Connection

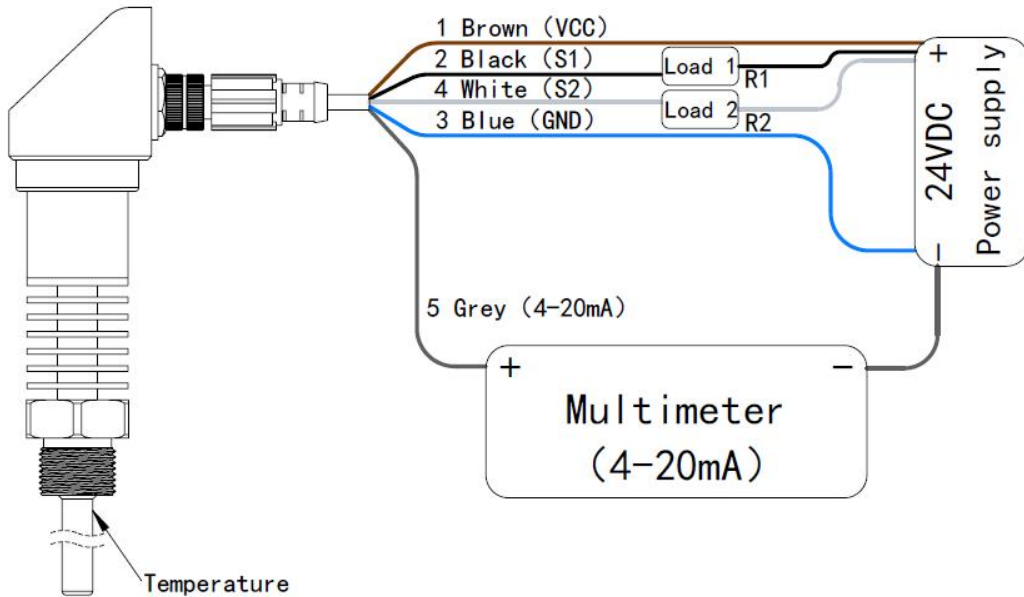
M12×1-5P (Code: C6)	M12×1-5P, with cable (Code: C6X)
1: VCC	Brown: VCC
2: SP1	Black: SP1
3: GND	Blue: GND
4: S2	White: S2
5: 4~20mA	Grey: 4~20mA

Electrical Connection



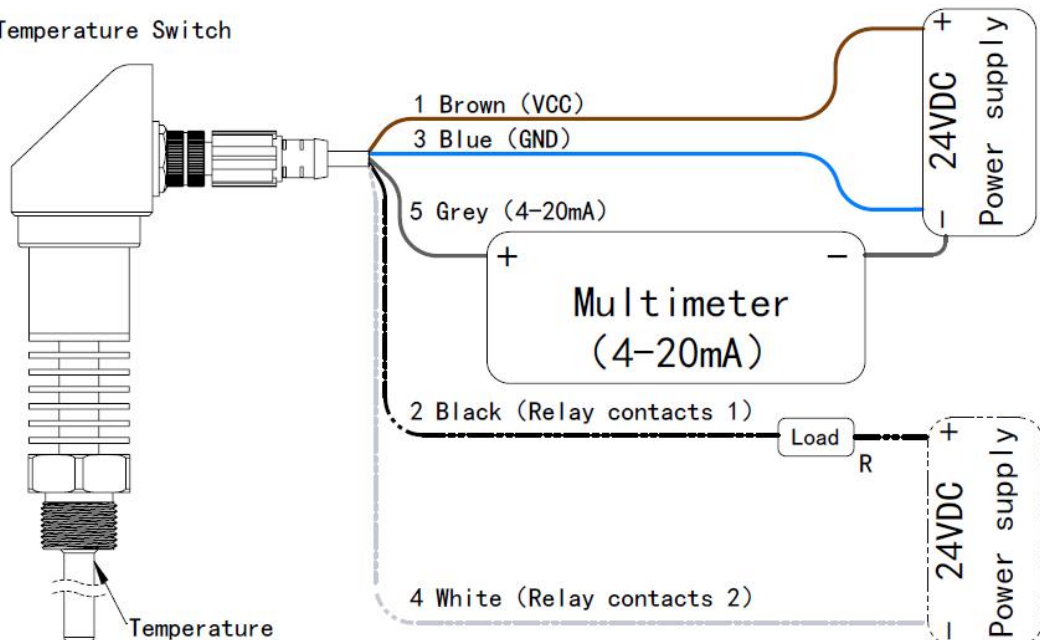
4~20mA + two NPN outputs

Temperature Switch



4~20mA + one relay output

Temperature Switch



Ordering Guide

Code	Type							
HTM5100	Temperature Switch							
		Range	Measuring temperature					
		(T1 – T2)°C	T1 is lower limit T2 is upper limit					
		Code	Temperature sensing element					
		PT100	PT100					
		PT1000	PT1000					
		Code	Output Signal					
		B1	(4 – 20)mA					
		B9	Relay output					
		B10	Transistor output NPN					
		B11	Transistor output PNP					
		Code	Process connection					
		P1	M20×1.5					
		G12	G1/2					
		K505	Tri-Clamp 1-1/2" ISO 2852 DN38 DIN 32676 DN32-40					
		K640	Tri-Clamp 2" ISO 2852 DN40-51 DIN 32676 DN50					
		Code	Electronic connection					
		C6	M12×1 5P					
		Code	Probe material					
		S4	304					
		S6	316L					
		Code	Probe length					
		L	L=insertion depth (mm)					
		Code	Others					
			Other customized requests					
Eg: HTM5100	(0 – 100)°C	PT00	B1 B11	P1	C6	S4	L=150mm	

1. When ordering products with temperature point control, please indicate the temperature value controlled; if it is a relay output, please indicate whether the switch point is normally open or normally closed.
2. Output signals B9, B10, B11 can only select one type, but B1 can be selected at the same time as the alarm switch.
3. For other special requirements, please discuss with our company and indicate them in the order.

Certification Information

Certification organization	CQM
Quality management system	ISO 9001:2015
Certification scope	Research, development and manufacture of pressure transmitter and temperature transmitter
Certificate No.	00223Q21711R1S