



带热电偶(阻)、温度变送器的双金属温度计

WSS Series Bimetallic Thermometer with thermocouple(thermal resistance)/temperature transducer

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概述

WSS 带热电偶(阻)、温度变送器的双金属温度计是现场就地显示和远传电信号的温度传感器。它既可以现场指示温度又可传送热电偶(阻)和二线制温度变送器信号，作为新一代的温度计，可广泛用于冶金、石化、电力、轻纺，食品，国防等工业部门。

- 热电偶(阻)、双金属温度计或温度变送器为一体。
- 适合在恶劣环境长期工作。
- 远传电信号精度高，工作稳定。也可直接以二线制的形式输出，提高信号长距离传送过程中的抗干扰能力。
- 性能价格比高。

Overview

WSS Series Bimetallic Thermometer with thermocouple (thermal resistance)/temperature transducer is temperature sensor of site local display and executes electrical signal remote transmission, which can indicate temperature, transmit signals of thermocouple (thermal resistance) and two-wire system temperature transducer. As a new generation thermometer, it can be widely used in industries such as metallurgy, petrochemical industry, power, light textile, foods and national defenses.

Thermocouple (thermal resistance), bimetallic thermometer or temperature transducer are integral. It is suitable for long-term working in bad environments.

Regarding remote transmission electrical signal, it boasts high precision, stable working and can also be output in two-wire system, enhancing signal anti-interference ability during remote distance transmission.

主要技术指标

测量范围: -60~500°C

显示精度等级: 1.5 级

远传电信号偏差:

- 分度号: E(镍铬-铜镍) 允许偏差 $\pm 2.5^{\circ}\text{C}$ 或 0.75% t
- 分度号: K(镍铬-镍硅) 允许偏差 $\pm 2.5^{\circ}\text{C}$ 或 0.75% t,
- 分度号: Pt100(铂电阻) 允许偏差:

A 级: $\pm (0.15+0.002 | t |)$

B 级: $\pm (0.30+0.005 | t |)$

d. 带温度变送器的基本误差: $\triangle = \Delta - \pm 0.5\% FS$

Δ 为热电偶(阻)允差对应输出基本误差

FS 为测量范围

温度变送器传送方式: 二线制 (4~20mA)

≥ 变送器工作电源电压最低 12V, 最高 35V, 额定工作

电压 24V

正常工作环境:

- 环境温度: -25°C ~80°C (危险场所不高于 70°C)
- 相对湿度: 5% ~95%
- 机械振动: f≤55Hz, 振幅<0.15 哩
- 周围空气中不含有引起变送器腐蚀的介质

环境温度影响: $\leq 0.05\% / 1^{\circ}\text{C}$

Main technical index

Measurement range: -60~500°C

Display precision grade: Grade 1.5

Error of remote transmission electrical signal

- Graduation: E(nickel chromium-copper nickel) allowable error: $\pm 2.5^{\circ}\text{C}$ or 0.75% t
- Graduation: K(nickel chromium-nickel silicon) allowable error: $\pm 2.5^{\circ}\text{C}$ or 0.75% t
- Graduation: Pt100(platinum resistor)allowable error

A Grade: $\pm (0.15+0.002 | t |)$

B Grade: $\pm (0.30+0.005 | t |)$

d. Basic error of that with temperature transducer: $\triangle = \Delta - \pm 0.5\% FS$

Δ 1 is output basic error corresponded by thermocouple(thermal resistor) allowable error

FS is measurement range

Temperature transducer transmission mode: two-wire system(4-20mA), the lowest working voltage of power supply is 12V. The maximum is 35V. Rated working voltage 24 V

Normal working ambient

a. Ambient temperature: -25 °C ~80 °C (not higher than 70 °C in dangerous place)

b. Relative humidity: 5% ~95%

c. Mechanical vibration: f≤55Hz, amplitude<0.15mm

Medium that will cause rust is not included in the ambient air

Ambient temperature influence $\leq 0.05\% / 1^{\circ}\text{C}$



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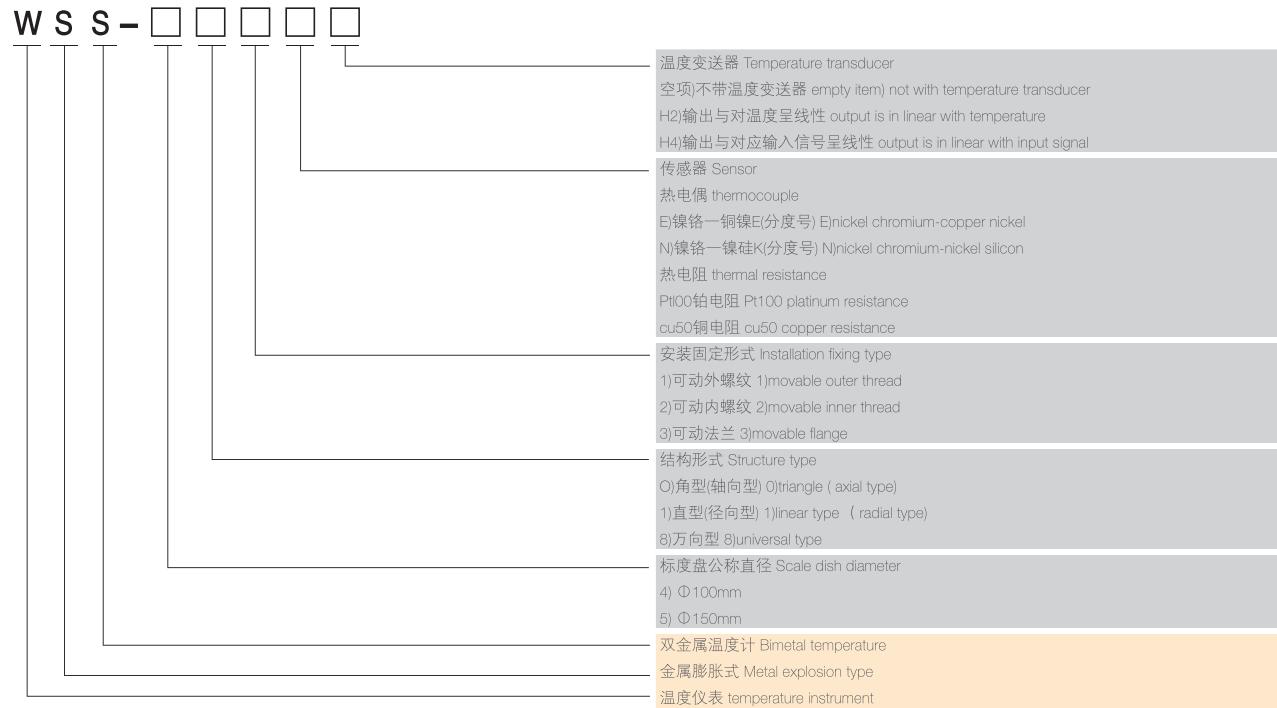
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温度仪表系列 Temperature Instruments series

型号表示 Model



注：可根据有关标准加工。

测量范围 Measurement range

类别 types	远传温度分度号 Remote transmission temperature graduation	测量范围°C Measurement range
镍铬-铜镍 nickel chromium-copper nickel	E	0~200 0~300 0~400
镍铬-镍硅 nickel chromium-nickel silicon	K	0~400 0~500
铂电阻 platinum resistance	Pt100	-10~40 -50~50 -50~150 -50~200 -100~50 -60~40 0~50 0~100 0~150 0~200 0~300 0~400 0~500
铜电阻 copper resistance	Cu50	-50~0 -10~40 -60~40 0~50 0~100 0~150

外型及安装尺寸 Appearance and erection size

代号 No 型号 Type	D	A	A'	A''	B	C	C'	d	d ₁	H	S	L	T
角型(轴向型) angle type (axial type)	Φ 107	100	105	120	25	116	Φ 16	Φ 24	19	30	100 150 200 250 300 400 500 750 1000	M27 × 2 G3/4" 或 ZG3/4" NPT3/4"	
	Φ 157												
直型(径向型) straight type (radial type)	Φ 107	100	120	126	185	64	Φ 16	Φ 24	19	30	100 150 200 250 300 400 500 750 1000	M27 × 2 G3/4" 或 ZG3/4" NPT3/4"	
	Φ 157												
万向型 universal type	Φ 107	100	120	126	185	64	Φ 16	Φ 24	19	30	100 150 200 250 300 400 500 750 1000	M27 × 2 G3/4" 或 ZG3/4" NPT3/4"	
	Φ 157												

注：凡 27 × 2 及 G3/4" 固定螺栓均为活动型，双金属温度计表头均可按用户需要位置定位后锁紧。

凡选用 ZG3/4" 或 NPT3/4" 固定螺栓的用户须作特殊定货。在安装使用时，螺栓锁紧后若双金属温度计表头方向不在操作面，则可松动调整螺母，将表头转到所须位置，然后锁紧调整螺母即可。

(注意调整范围只在 360 度以内)

Note: Fixed bolts of both M27X2 and G3/4 are movable ones, every temperature gauge of dual metal can be located and locked based on clients' needs.

Fixed bolts of ZG3/4" and NPT3/4" shall be specially ordered. During usage, after bolt locked, if direction of temperature gauge of dual metal is not at operation face, bolts can be loosened and adjusted to make gauge rotate to the required location and then locked.

Pls be noted that the adjustment range is within 360°C .





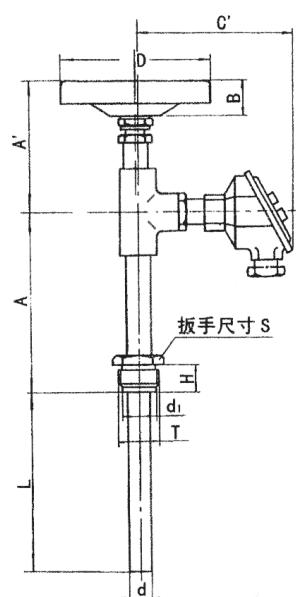
中外技术合作企业 Sino-Foreign Technical Cooperation Enterprise
权威注册 Authoritative Registration: CE / API / TSG
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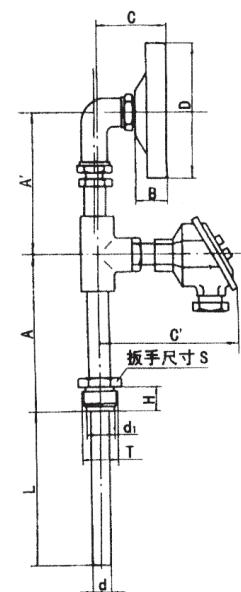
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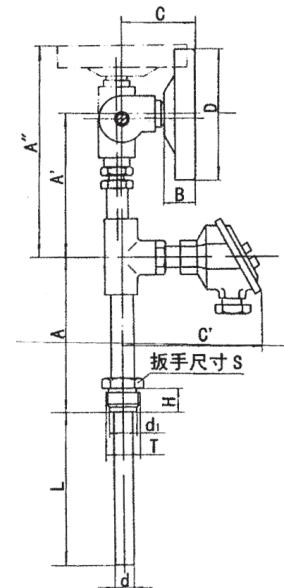
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角 型 angle type



直 型 straight type



万向型 universal type