【Multi-loop intelligent data logging remote temperature controller】

➢ **Product outline**

WP multi-loop inteeligent data logging remote temperature controller instruments integrate many years of experience for design and production, mix international up-to-date devices and control arithmetic, reflect on a higher level its features of intelligentization, series manufacture and high reliability which is represented by microprocessor.

WP-XTRM series multi-loop intelligent data logging remote temperature controllers (multi-loop temperature transmitters) based on familiar with WP instrument by users offer a wider opening enactment interface for internal parameters, thus users can possess their own right to complete secondary development and no longer rigidly rely on manufacturers for parameters enactment and the series products are widely applied in cements, ceramics and glass industries.

This product adop Pt 100 thermo-resistance for temperature measurement and the output signal loop among with max. temperature in all loops, it has output of 4～20 mA. In normal operation, the loop with max. Temperature will be shown, but users can sight temperature on any loop through keystrokes on panels. Due to adopt 2-wired international standard signal it possible to communicate with PC or secondary instrument and have strong anti-jamming performance.

Its characteristics such as high performance, low price, smart control, anti-jamming performance, 2-wired signal transmission, field LED display, waterproof and dust-proof performance can well satisfy any requirement for field mounting.

➢ **Main technical parameters**

>> Input signal

Measured channel • patrolling measurement for 1～4 loops

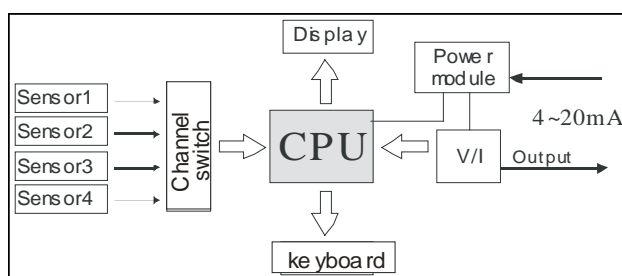Analog input • resistance: standard thermo-resistance: Pt 100

>> Output signal

Transmitting output load • 250～750 Ω
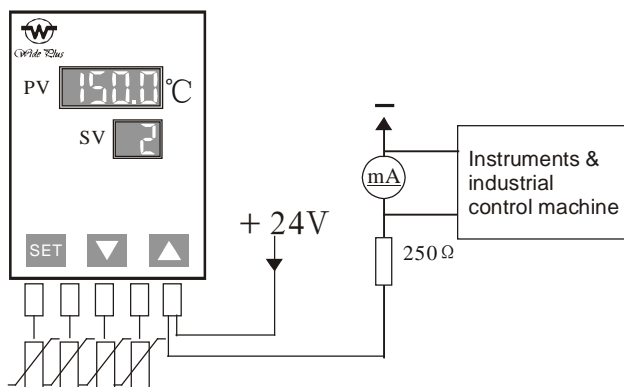
Output • DC 4～20 mA

>> Characteristics

measuring accuracy • display accuracy: ±0.2%FS; transmitting output accuracy: ±0.5%FS

resolution • 0.1 character

measuring range 0.0～200.0℃

weight • 500g

outline dimensions • 110 (W) × 160 (H) × 67 (D) mm

★ WP-XTRM temperature transmitter has multiple inputs and one 2-wired output of 4～20 mA and it is usually installed near the measured point. Its 2-wired output can simultaneously work as both signal output and power supply wire for instruments. The output current can be classified into two parts: the invariable 4 mA –works as "zero" point and as power supply current for electronic circuit of instrument while the variable current of 0～16 mA is direct propertion to variation of measured input signals.

★ The instrument is based on single piece microprocessor of micro power dissipation. The temperature signal from thermo-resistance senor through input signal circuit can be transrommed from analog signal into digital signal by A/D converter, and after being accurately calibrated by microprocessor according to sampled result send to D/A, the digital signal can be converted to analog signal by D/A converter, which is ultimately converted to output of invariable current of 4～20 mA by V/I converter.

➢ **Block diagram for working principle**

➢ **Drawing for system application**   **Outline diagram**

> Type spectrum table for multi-loop intelligent remote temperature controller (2-wired output wall suspension type)

Model				explanation
WP-XTRM	□	□	□□	
Display mode	1			LED digital display
Input channel	Input platinum resistance: Pt 100	1		One channel input
		2		Two channels input
		3		Three channels input
		4		Four channels input
Measuring range			10	0～100.0 ℃
			15	0～150.0 ℃
			20	0～200.0 ℃

★ Note: This product is checking temperature instrument which is special apply in cement industry etc. After every channel is compared it select a channel with max. measurement temperature as transmitting (4～20) mA current output, transmitting output and supply power only share two wires.

★ Note: This product may direct install in field, operation environment temperature reachable –20℃～80℃。

★ Note: Users need to use a 4 loops temperature monitor with LED display for measurement of Pt 100 between range of 0～150.0℃

★ Option as an example: WP-XTRM-1415

★ Note: Special requirement ordering contact with WP company, please

➢ **Wiring diagram**