

TM-2002C Wireless Transmission Large-Screen

Melting Temperature Monitoring System



➤ Product Overview

TM-2002C Wireless Transmission Large-Screen Melting Temperature Measurement System is a digital instrument employing wireless transmission technology. This device synchronously and accurately transmits temperature readings from a handheld thermometer to a wall-mounted large-screen display via wireless transmission. This instrument eliminates the inconvenience of excessively long thermometer leads while enhancing its resistance to interference. Furthermore, it facilitates effortless long-distance data transmission. Using this instrument, temperature readings taken at any location within the workshop can be centrally displayed on the large screen or other data terminals.

➤ Product Features

This instrument combines the portability of a handheld thermometer with the long-range visibility of a wall-mounted large-screen display, eliminating the need for cumbersome cables between the probe and the monitor.

This instrument comprises a handheld melting temperature gauge with wireless transmission capability and a large-screen display unit with wireless reception capability (featuring a 5-inch digital display with 128mm character height). It incorporates an automatic temperature stabilisation search function, typically locating and displaying a stable temperature reading within 3 to 5 seconds. Simultaneously, wireless transmission occurs. The data terminal emits an audible alert, prompting the operator to withdraw the temperature probe from the measurement zone. Additional alarm functions include thermocouple break, over-range, and low battery voltage.

This instrument employs an original imported professional data transmission module to ensure the utmost reliability of wireless measurement data transfer. Incorporating the latest anti-interference measures, it exhibits exceptional resistance to interference. Temperature measurement within the furnace can be conducted without power interruption during medium-frequency furnace operation.

Based on the actual on-site temperature measurement conditions and considering that the workshop contains several pieces of equipment requiring testing, the instrument has been specifically equipped with a furnace number setting function. This enables users, when retrieving records in future, to identify which piece of equipment the measured temperature values correspond to.

➤ **Technical Performance Specifications**

1、This instrument, when paired with a compatible thermocouple, enables precise and rapid temperature measurement in diverse applications such as molten steel, molten iron, molten copper, and molten aluminium.

Thermocouple type	Measuring range (°C)	error	Suitable occasions
S	400~1769	$\leq\pm0.2\%\pm1\text{ }^{\circ}\text{C}$	molten steel, iron and copper
R	400~1769		molten steel, iron and copper
B	400~1820		High-temperature molten steel
WRe3/25	0~1999		molten steel and iron
K	0~1000		Aluminium and zinc melt

2、Resolution (°C): 1

3、Response time (seconds): 1

4、Power Supply: 220V 50Hz

a、Wireless Portable Melting Temperature Gauge: Nickel-Metal Hydride Rechargeable Battery DC5V

b、Wireless Receiver for Large Screen Display: AC 220V5、无线接收、发射距离: 无障碍 2km

6、Wireless transmission frequency: $f = 170$ MHz

7、External dimensions of the large screen: $710 \times 270 \times 120$ (mm)

Optional:

Data storage capacity (5,000 readings) and corresponding software, with PC connectivity for data retrieval.

对应炉号的测量数据可在软件中保存、查看、导出、打印等

The screenshot displays the software interface for Cloud Instruments. The top navigation bar includes tabs for '热电偶测温' (Thermocouple Measurement), '实时数据' (Real-time Data), '历史记录' (Historical Record), and '系统设置' (System Settings). On the right, there is a '济南云成仪器有限公司研制' (Jinan Yuncheng Instrument Co., Ltd. developed) watermark and a circular '退出' (Exit) button. The main area features a large table on the left showing real-time data with columns for '地址' (Address), '时间' (Time), and '温度' (Temperature). The table contains 32 rows of data. To the right of the table is a panel for '读取历史数据' (Read historical data) with fields for '设备地址' (Device address), '读取条数' (Number of reads), and '读取状态' (Read status). Below this are four buttons: '查看实时数据' (View real-time data), '导出实时数据' (Export real-time data), '查看历史数据' (View historical data), and '导出历史数据' (Export historical data). The bottom right corner shows a progress bar indicating the export of historical data is complete.

热电偶测温	实时数据	历史记录	系统设置	济南云成仪器有限公司研制	退出
-----	-----	-----	-----	-----	-----
地址1	地址2	地址3	-----	-----	-----
-----	-----	-----	-----	-----	-----
地址4	地址5	地址6	-----	-----	-----
-----	-----	-----	-----	-----	-----
地址7	地址8	地址9	-----	-----	-----
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