High precision handheld thermometer

高精度手持式温度计

HRM series 系列

HRM-120E
E:-100~200°C

CAL
120.00 °C
P 150.00 | V 80.00

HOLD | AUTO OFF | POWER

RESO | P/V HOLD

DIGITAL THERMOM

HRM-150E
E:-100~200°C

CAL
150.00 °C
INT | MEM
00:0 | 150.00

HOLD | AUTO OFF | POWER

RESO | P/V HOLD

SET | START

PLAY BACK | STOP

DIGITAL THERMOMETER

Handy type thermometer HRM series featuring high accuracy, reliability and ease of use.
Combined with Anritsu Meter's wide variety of temperature probes, it supports a variety of applications.

追求高精准度，可靠性，操作简单的HRM系列。
可以和安立计器的多种多样的温度传感器配合使用于各种领域。

ANRITSU M **ANRITSU METER CO., LTD.**

扫码了解更多产品信息

HRM series lineup 系列产品

Standard model 标配版   **Memory model** 记录仪版

HRM-120E   **HRM-150E**

MODEL 型号	DISPLAY 显示屏	BACK LIGHT 背光灯	WATERPROOF 防水功能	AUTO OFF 自动关闭电源	HOLD 固定显示测量数据	P/V HOLD P/V值固定显示	RESO 切换分辨率	MEMORY 记录功能
HRM-120E	LCD	●	●	●	●	●	●	
HRM-150E	LCD	●		●	●	●	●	●

This product has a built-in reader/writer module that has received type designation certification as stipulated by the Radio Law.
Since it uses a radio band with a transmission frequency of 13.56MHz, it can only be used in countries that comply with RFID standards. (Products：HRM-120E, HRM-150E)

本产品内藏读取器模块，已获得无线电波法的认证。
由于本产品采用13.56MHz传输频段无线电，因此只能在符合RFID标准的国家使用。（对象产品：HRM-120E、HRM-150E）
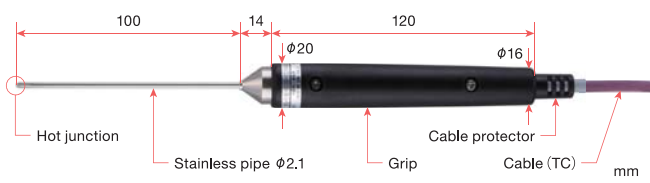
Typical probes dedicated to HRM series HRM系列专用温度传感器典型产品

Highly accurate measurement is possible by combining a thermometer and probe
通过主机与传感器的结合实现高精准度

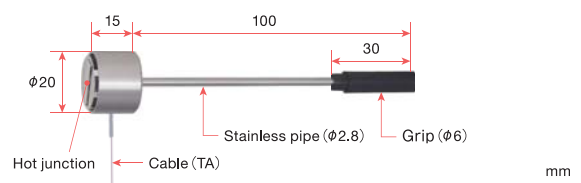## For temperature measurement of liquids and semi-solids
液体・半固体温度测量用

BSM-21E-010-TC1-ASP

Temp. range 使用温度范围	Combined total tolerance 综合精准度	Response time 响应速度
–100~200℃	±0.30℃	2.5s

For surface temperature measurement
表面温度测量用

WEM-33E-TA1-ASP

Temp. range 使用温度范围	Combined total tolerance 综合精准度	Response time 响应速度
30~200℃	±1.00℃	2s

Suitable for temperature control inside the refrigerator
箱体内温度测量用
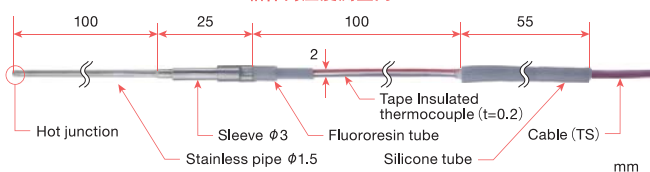
BUM-01E-TS1-ASP

Temp. range 使用温度范围	Combined total tolerance 综合精准度	Response time 响应速度
–100~200℃	±0.30℃	1.5s

For temperature measurement of chemicals, etc.
药品等温度测量
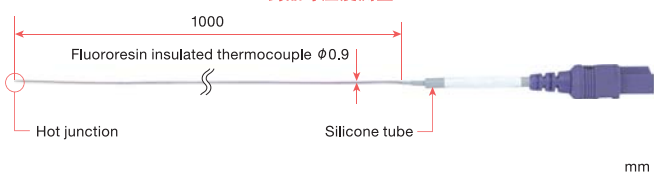
SFM-E-100-ASP

Temp. range 使用温度范围	Combined total tolerance 综合精准度	Response time 响应速度
–50~200℃	±0.30℃	2s

Functions 功能

Waterproof specifications 防水功能

Protect from water
防水

Waterproof specifications : Equivalent to IPX5.

IPX5防水功能。 安全的防水设计。

Display 显屏

Large display and easy to read
大显示屏，易于查看

Large easy-to-read LCD display.

便于确认的大型显示屏。

Auto power-off 自动关闭电源

Prevent forgetting to turn off the power
防止忘记关闭电源

The thermometer will turn the power off automatically after 5 minutes.

5分钟以上不使用按钮，主机将自动关闭。

Hold 固定测量数据

Fixed display of indicated value
固定显示值

The displayed value can be fixed by the 【HOLD】 key.
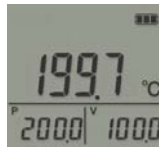
按【HOLD】键，可固定显示所测量数据。

P/V hold P/V值固定显示

Prevent oversight of measurements during work
不错过测量值

The peak (Max.) value and the valley (Min.) value can be displayed by the 【P/V HOLD】 key on the sub-display.

按【P/V HOLD】键显示测量中的最大值和最小值。

Resolution change 切换分辨率

Also displays small changes in values
显示测量值的微小变化

By pressing the 【RESO】 key, the resolution can be switched to 0.1℃ / 0.01℃ resolution.

按【RESO】键，可切换分辨率0.1℃ / 0.01℃。

Specifications for probe of HRM series HRM系列专用传感器的规格

Includes test report for the probe alone 传感器付成绩书

BSM・BUM・SFM series 系列

Model[*1] 型号	BSM-9∗E	BSM-1∗E	BSM-2∗E	BSM-3∗E	BSM-51E	BUM-∗∗E	SFM-E
Temp. range 使用温度范围	−100~200℃					−100~200℃	−50~200℃
Combined total tolerance[*2] 综合精准度	±0.30℃					±0.30℃	±0.30℃
Calibration points of test report 成绩书校正点	−100, 0, 100, 200℃					−100, 0, 100, 200℃	−50, 0, 100, 200℃

WEM series 系列

Model[*1] 型号	WEM-3∗E
Temp. range 使用温度范围	30~200℃
Combined total tolerance[*2] 综合精准度	±1.00℃
Calibration points of test report 成绩书校正点	50, 100, 200℃

[*1] The model number after thermocouple type is omitted.

[*2] This is the tolerance when using the automatic correction function.

※ In order to ensure high accuracy measurement, please be careful to keep the grip and sleeve parts at room temperature during measurement, as well as the thermometer.

※ The WEM series is adjusted using the surface temperature calibrator ACM-1033.

Memory function 记录功能

Record measurement results and transfer data to PC

记录测量数据・数据可导入电脑

- Stores readings at user-selected time intervals. User specified time interval and the remaining amount of memory are displayed on the sub-display.
- The playback function allows you to check data stored in memory.
- You can graph and form the recorded data on your PC by using attached software. It is also possible to convert the recorded data to CSV format.

・按设置间隔记录数据。同时显示记录间隔和可记录剩余数据量。
・可回放显示记录的数据。
・使用附属软件，通过USB数据线将数据传到电脑，并且可以转换成CSV文档。

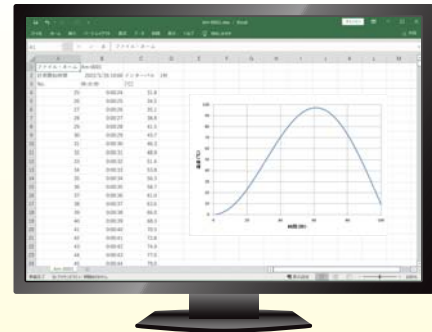Data stored in memory can be transmitted to a personal computer through a USB interface.

通过USB数据线传送数据到电脑。

HRM-150E

USB interface

Download data

● **Operating environment of dedicated data analysis software AMS-350**

Supported OS   Windows® 10, Windows® 11 Under USB environment
System type   32bit / 64bit

※ Operation is not guaranteed for all PCs with the above operating environment.
※ Available only to users with system administrator privileges Administrator.
※ Windows® is registered trademarks or trademarks of Microsoft Corporation in the United States, Japan and other countries.
※ Windows® 10 and Windows® 11 are product names of Microsoft Corporation in the United States.

❘ Supplied accessories and Optional accessories 附件和选件 ❘

Supplied accessories

Test report   试验成绩书

SAMPLE

Soft case   主机套

SCHR2
Thermometer not included.
不包含主机。

Hand strap   手带

Thermometer not included.
不包含主机。

Optional accessories

AC-Adaptor   AC电源

FOR
HRM-150E

AD-115-500-HR-R (for 115V AC)
AD-220-500-HR-R (for 220V AC)
Not CE-approval.
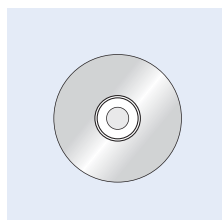不对应CE。

Supplied accessories

Communication cable
通信用USB线

FOR
HRM-150E

AM-USB2

Software for HRM-150E (CD-ROM)
软件

FOR
HRM-150E

AMS-350

| Features 特点 |

Even small temperature changes can be confirmed 可确认温度变化小的被测物的细微温度变化
0.01℃ resolution display
(when combined with various temperature sensors and high-accuracy thermometer)
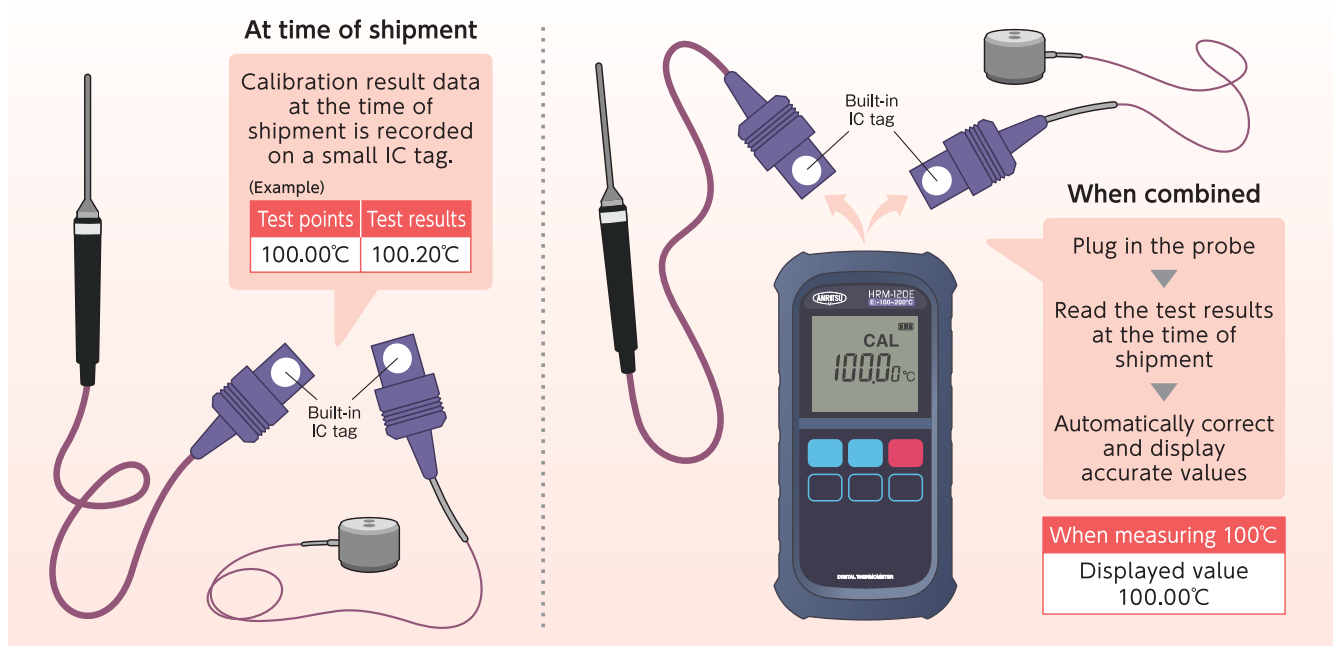0.01℃分辨率 (各种温度传感器·高精准度温度传感器配套使用时)

Automatic correction of calibration results (patented) 自动补正校正结果 (获得专利)

Combined total tolerance 与温度传感器配套的综合精准度
±0.30℃ (at time of shipment 出厂时)：BSM·BUM·SFM series 系列
±1.00℃ (at time of shipment 出厂时)：WEM series 系列

About automatic correction

At time of shipment

Calibration result data at the time of shipment is recorded on a small IC tag.
(Example)

Test points	Test results
100.00℃	100.20℃

Built-in IC tag

Built-in IC tag

When combined

Plug in the probe
▼
Read the test results at the time of shipment
▼
Automatically correct and display accurate values

When measuring 100℃
Displayed value
100.00℃

ANRITSU HRM-120E
E:-100-200℃
CAL
100.00℃

With conventional thermometers, it is necessary to check in advance the error between the value indicated by the thermometer and the correct value based on the calibration results, and then calculate the accurate value by adding or subtracting the measurement results.
The HRM series can display accurate temperature by directly recording errors on a dedicated temperature probe, reading them with a thermometer, and automatically correcting them.
There is a charge for set calibration that combines a thermometer and probe.

※ In order to ensure high accuracy measurement, please be careful to keep the grip and sleeve parts at room temperature during measurement, as well as the thermometer.

一般的温度计，需要根据校正结果来把握测量值与正确数值的偏差，然后通过计算偏差值来算出准确数值。
HRM系列，可直接读取准确温度。将误差直接写入专用的温度传感器，用温度计读取，直接补正并且读取正确的温度。主机与温度传感器的配套校正需要另外付费。
※为了保证高精准度测量，请注意测量过程中保证手柄和套筒以及主机保持在室温环境下。

High precision and low current consumption. 高精度和低消费电流的两立

· Capable of 600 hours of continuous operation due to low current consumption.
可连续使用600小时 (HRM-120E)

· Repeatability was suppressed to ±0.02℃ at 0.01℃ resolution.
在0.01℃分辨率下，重复性可抑制在±0.02℃以内。

Waterproof specifications：Equivalent to IPX5
(HRM-120E)
IPX5防水功能 (HRM-120E)

Made in Japan 高品质的日本制造
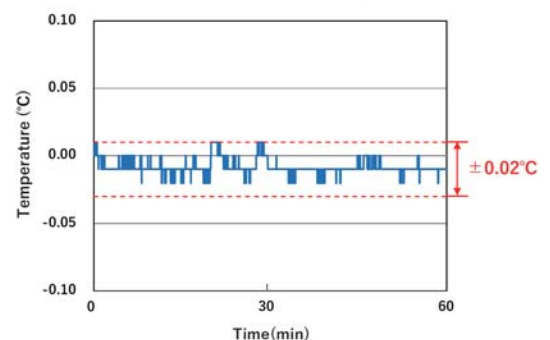
Large easy-to-read LCD display 大型液晶显示屏

Various probes available (sold separately)
可和多种多样的温度传感器搭配

Repeatability during continuous measurement of 0℃
冰点连续测量的重复性
Within ±0.02℃ ±0.02℃以内

±0.02℃

Specifications 规格

Model 型号	HRM-120E	HRM-150E
Display 显示屏	LCD	
Waterproof specifications / Equivalent to IPX5 IPX5 防水功能	○	—
Method of operation 按键	Membrane switch	
Input connector 输入接口	ASP connector (thermocouple)	
Input type 输入类型	Thermocouple Input：Type E	
Channel 通道数	1ch	
Signal source resistance 信号源电阻	MAX.1kΩ	

Measurement range 测量范围	0.1℃	−104.9～204.9℃	
	0.01℃	−104.99～199.99℃	

Measurement accuracy 精准度	0.1℃	−104.9～204.9℃	±0.1℃
	0.01℃	−104.99～199.99℃	±0.10℃

Reference junction compensation accuracy 参比端补偿温度精度	±0.10℃ (at 25℃±10℃)	
Temperature coefficient 温度系数 (Only when the temp. exceeds 25℃±10℃)	±0.005×Δt℃ Add the value obtained by multiplying the exceeded temperature Δt by the coefficient to the display tolerance (= measurement accuracy + reference junction compensation accuracy). Example：Add ±0.075℃ for 50℃ and 0℃ environments.	
Operation environment 操作环境	0～50℃, within 0～80%RH (Non condensing)	
Storage environment 储存环境	−20～50℃, within 0～85%RH (Non condensing)	
Battery life 电池寿命	approx. 600h	approx. 450h

Power supply 内部电源	Dry Battery 干电池	4 AA alkaline batteries	
	AC Power (Option) AC电源 (另售)	—	available

Sampling rate 显示周期	approx. 500ms	
Linearizer 线性	Digital Linearizer method (Compliant with JIS C1602-2015)	
Dimensions (mm) 外形尺寸 (mm)	approx. 82 (W) × 166 (H) × 36 (D) [Protruded parts excluded]	
Weight 重量	approx. 350g [Include Batteries]	
Supplied accessories 标配品	Manual, Test report, Soft case, Hand strap, 4 AA alkaline batteries	
	—	Communication cable, Software (AMS-350)
Memory function 记录功能	—	○ TABLE Ⅰ

RFID	Frequency 频率	13.56MHz	
	Modulation method 调制方式	ASK	
	CH 通道数	1	
	MAX. electric field strength 最大电场强度	23.05dBμV/m (Peak) @ 30m	
	Compliance standards 符合标准	Standard #：ARIB STD-T82 Type designation #：FC-20001 Standard #：CCAQ23LP0671T2 (For HRM-120E) CCAQ23LP0670T0 (For HRM-150E) Standard #：ETSI EN 300 330 (For HRM-120E、HRM-150E)	

TABLE Ⅰ   Memory function：HRM-150E

Time interval 记录间隔	1 second, 5 seconds, 10 seconds, 30 seconds, 1 minute, 5 minutes, 10 minutes, 30 minutes, 60 minutes and manual memory
Memory capacity 内存	19999 data