

**NEW
MODEL**
新产品

HANDHELD THERMOMETER 手持式温度计

HD-1000 Series 系列



HD-1000 series handheld thermometers allow easy temperature measurement. These general-purpose thermometers can be used for on-site temperature measurement and various other applications.

追求高精度，可靠性，操作简单的HD-1000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不同领域。



ANRITSU ANRITSU METER CO.,LTD.



High accuracy · High reliability · Easy operation

高精度度 · 可靠性强 · 操作简单

- **High accuracy $\pm 0.2^{\circ}\text{C}$ (at 0°C)**
Free test report included
出厂时的 0°C 精度检测可达到 $\pm 0.2^{\circ}\text{C}$ (付试验成绩单)
- **Accurate temperature measurement is available under rapid changes in environmental temperature.**
 - Use of the same materials as thermocouples into an input part.
 - Integration of reference junction and reference junction compensator.
 不受室温变化的影响
· 插口处使用和传感器同种金属
- **Waterproof specifications: Equivalent to IPX5 (HD-11*0·12*0·14*0·1650·1750)**
IPX5防水功能 (HD-11*0·12*0·14*0·1650·1750)
- **Made in Japan**
高品质 · 可靠性强的日本原装
- **Large easy-to-read LCD display**
大型液晶显示屏
- **Easy operation**
操作简单
- **Low power consumption.**
Capable of 300 hours of continuous operation (HD-11*0·12*0·13*0·1650·1750)
可连续使用300小时 (HD-11*0·12*0·13*0·1650·1750)
- **Various probes available (sold separately)**
可和多种多样的温度传感器搭配
- **Memory function (HD-15*0)**
 - Capable of storing up to 9999 data
 - Time interval selectable (9 types)
 - Manual measurement available
 - Data stored in memory can be transmitted to a personal computer by the software AMS-100.
 记录功能 (HD-15*0)
 - 可记录9999个数据
 - 可选择记录间隔(9种)、可手动记录数据
 - 可介用专用软件将记录数据传送到电脑
- **CE Marking**
CE认证标志



※ Image picture of waterproof specifications

※ 防水功能图片



※ Image picture of temperature measurement

※ 测量温度图片

HD-1000 series lineup 系列产品

Basic model 基本	Standard model 标准	High function model 高功能	LED display model LED显示屏	Memory model 记录功能
ASP model : HD-1100E HD-1100K ANP model : HD-1150E HD-1150K	ASP model : HD-1200E HD-1200K ANP model : HD-1250E HD-1250K	ASP model : HD-1300E HD-1300K ANP model : HD-1350E HD-1350K	ASP model : HD-1400E HD-1400K ANP model : HD-1450E HD-1450K	ASP model : HD-1500E HD-1500K ANP model : HD-1550E HD-1550K

FUNCTIONS 功能

Waterproof specifications 防水功能

Waterproof specifications : Equivalent to IPX5
Protected against water jets - Water projected at all angles through a 6.3mm nozzle at a flow rate of 12.5 liters/min at a pressure of 30kN/m² for 3 minutes from a distance of 3 meters.
IPX5防水功能。可防御来自任何方向的喷水(12.5L/分)。

Display 显示

Large easy-to-read LCD display
便于确认的大型显示屏

AUTO OFF Auto power-off 自动关闭

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 Hold 固定测量数据

The thermometer stops measurement by the HOLD key and holds the present readings.
按 HOLD 键，可固定测量数据并保持该数据的显示。



CAL SET Calibration 校准

The displayed value can be adjusted by the CAL SET key.
可设定测量标准值。



Analog output 模拟输出

1mV/°C Output 1mV per °C in conjunction with readings.
10mV/°C Output 10mV per °C in conjunction with readings.
电压输出时1°C为1mV或1°C为0.1mV。

Memory function 记录功能

Stores readings at user-selected time intervals.
User specified time interval and the remaining amount of memory are displayed on the sub-display.
设定记录间隔和剩余可记录数同时显示。



Backlight 背光灯

The backlight will operate by the key and the LCD display will be visible even in a dark place.
按 键打开背光灯，可在黑暗处确认数据

1/0.1 Resolution change 分辨率切换

Press the 1/0.1 key to change the resolution of readings.
按 1/0.1 键切换分辨率



P/V HOLD P/V Hold P/V 值固定

The peak (Max.) value and the valley (Min.) value can be displayed by the P/V HOLD key on the sub-display.
可固定测量温度的最大值或最小值



ALM SET Alarm output 报警输出

The thermometer gives an alarm when readings go beyond the high or low limits.
表示温度超出设定范围外时，可显示·蜂鸣·信号输出进行警告。



°C/°F °C/°F Change °C/°F 切换

Press the °C/°F key to change the temperature unit of the displayed temperature.
按 °C/°F 键切换°C与°F。

Functions of HD-1000 series HD-1000系列的功能表

ASP model	ANP model	WATER PROOF	DISPLAY	BACK LIGHT	AUTO OFF	HOLD	P/V HOLD	1/0.1	CAL	ALARM	ANALOG	°C/°F	MEMORY
HD-1100E HD-1100K	HD-1150E HD-1150K	●	LCD		●	●						°C	
HD-1200E HD-1200K	HD-1250E HD-1250K	●	LCD	●	●	●	●	●				°C	
HD-1201E HD-1201K	HD-1251E HD-1251K		LCD	●	●	●	●	●			1mV/°C	°C	
HD-1202E HD-1202K	HD-1252E HD-1252K		LCD	●	●	●	●	●			10mV/°C	°C	
HD-1300E HD-1300K	HD-1350E HD-1350K		LCD	●	●	●	●	●	●	●		°C	
HD-1301E HD-1301K	HD-1351E HD-1351K		LCD	●	●	●	●	●	●	●	1mV/°C	°C	
HD-1302E HD-1302K	HD-1352E HD-1352K		LCD	●	●	●	●	●	●	●	10mV/°C	°C	
HD-1400E HD-1400K	HD-1450E HD-1450K	●	LED		●	●						°C	
HD-1500E HD-1500K	HD-1550E HD-1550K		LCD	●	●	●	●	●				°C	●
	HD-1650E HD-1650K	●	LCD		●	●						°C/°F	
	HD-1750E HD-1750K	●	LCD	●	●	●	●	●				°C/°F	

Software for HD-15*0 (AMS-100)

专用软件

Data stored in memory can be transmitted to a personal computer through a USB interface and can be converted into CSV files.

可用USB导线将数据传到电脑，以CSV形式保存。



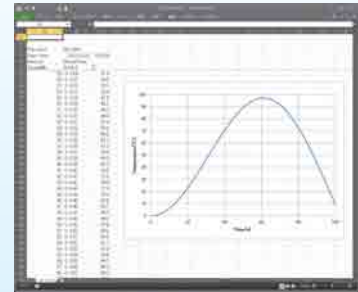
HD-1500E
HD-1500K



P C

Easily create graphs and tables from CSV files by Microsoft® Excel® or other spreadsheet software.

用Excel等软件进行制表·画图。



● Operational environment of software for HD-15*0

OS	Microsoft® Windows® XP (SP.3 or newer), Windows Vista® (32-bit version), Windows® 7 (32-bit version)
Memory·Hard-disk space	Normal operating environment of OS
Communication interface	USB 1.1

※Microsoft® Windows® XP, Windows Vista®, Windows® 7 and Excel® are registered trademarks of Microsoft Corporation in the United States and other countries.

Supplied accessories and Optional accessories 附件和选件

Supplied accessories

Test report
试验成绩书



Soft case
主机套



SCHD

Thermometer not included
不包括本体。

Hand strap
手带



Thermometer not included
不包括本体。

Optional accessories

AC-Adaptor
AC电源



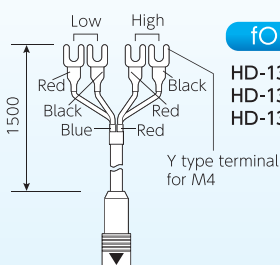
FOR
HD-12*1
HD-12*2
HD-13**
HD-15*0

A-115-200-HR-R (for AC115)
A-230-200-HR-R (for AC230)

Not CE-approval

Supplied accessories

Alarm output cable
报警输出线

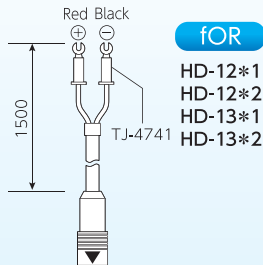


ALMHA-1.5

FOR
HD-13*0
HD-13*1
HD-13*2

Y type terminal for M4

Analog output cable
模拟输出线



ANGHA-1.5

FOR
HD-12*1
HD-12*2
HD-13*1
HD-13*2

Communication cable
通信用USB线



AM-USB (for USB)

FOR
HD-15*0

Software for HD-15*0 (CD-ROM)
软件



AMS-100

FOR
HD-15*0

※An alarm output cable and an analog output cable cannot be used simultaneously.
※不能同时使用报警输出线和模拟输出线

Connector type 连接传感器

2 types of connectors available

有2种插口可供选择。



ASP: Standard size connector ANP: Miniature size connector

Typical probes 使用例

※Probes are sold separately.

※传感器另售

Stationary surface probes 静止表面用温度传感器



For surface temperature measurement of die and mold for aluminum and plastic etc.

铝·树脂等金属表面温度测量



ASP type : N-231E-00-1-TC1-ASP
N-231K-00-1-TC1-ASP
ANP type : N-231E-00-1-TC1-ANP
N-231K-00-1-TC1-ANP

Internal probes for semisolid and liquid 半固体・液体用传感器



For internal temperature measurement of meat and vegetable etc.

肉类·蔬菜类等内部温度测量



ASP type : BS-21E-010-TC1-ASP
BS-21K-010-TC1-ASP
ANP type : BS-21E-010-TC1-ANP
BS-21K-010-TC1-ANP

Flat leaf probes 贴片型温度传感器



For surface temperature measurement of various applications

贴在皮肤等表面进行表面温度测量



ASP type : ST-11E-010-TS1-ASP
ST-11K-010-TS1-ASP
ANP type : ST-11E-010-TS1-ANP
ST-11K-010-TS1-ANP

High superior surface probes 高温耐久型静止表面温度传感器



For surface temperature measurement of high-temperature metal such as iron and steel etc.

延压钢铁等高温金属时的表面温度测量



ASP type : S-121E-01-1-TPC1-ASP
S-121K-01-1-TPC1-ASP
ANP type : S-121E-01-1-TPC1-ANP
S-121K-01-1-TPC1-ANP

Moving / rotating surface probes 移动表面用温度传感器



For surface temperature measurement of moving flat plates and rotating rolls etc.

圆滚等表面温度测量



ASP type : U-111E-00-D0-1-TC1-ASP
U-111K-00-D0-1-TC1-ASP
ANP type : U-111E-00-D0-1-TC1-ANP
U-111K-00-D0-1-TC1-ANP

Manufacture of special probes 订做传感器

Special probes suitable for various applications can be manufactured. Please contact Anritsu Meter or your local distributor.

根据客户的要求订做。请告知测量物和测量温度。

Specifications

Model	HD-1100 HD-1150 HD-1650	HD-1200 HD-1250 HD-1750	HD-1201 HD-1251	HD-1202 HD-1252	HD-1300 HD-1350	HD-1301 HD-1351	HD-1302 HD-1352	HD-1400 HD-1450	HD-1500 HD-1550
Waterproof specifications / Equivalent to IPX5	○	○						○	
Display	LCD	LCD with Backlight						LED	LCD with Backlight
Input connector	ASP model : HD-1*0* / ANP model : HD-1*5*								
Channel	1ch								
Input type	Thermocouple input : Type E or K (HD-1*0*) / Type E, K, J, T or R (HD-1*5*)								
Signal source resistance	MAX 500Ω								
Measurement range	*TABLE I								
Measurement accuracy	*TABLE II								
Reference junction compensation accuracy	±0.2°C at 25°C ±10°C [±0.4°F at 77°F ±18°F]								
Temperature coefficient	±0.01% of F/S per °C [±0.01% of F/S per °F] ※ F/S : full scale								
Environmental	Operation	0~40°C, 0~80%RH (Non condensing) [32~104°F, 0~80%RH (Non condensing)]							
	Storage	-20~50°C, 0~85%RH (Non condensing) [-4~122°F, 0~85%RH (Non condensing)]							
Battery life	300h	300h	150h	150h	300h	150h	150h	150h	150h
Power supply	Dry battery	4 AA Alkaline batteries							
	AC power	—	—	AC-Adaptor (Option)				—	AC-Adaptor (Option)
Sampling rate	approx. 300ms								approx. 300ms*1
Plinearizer	Digital linearizer method (Compliant with IEC 60584-1 (1995))								
Dimensions	approx. 76(W)×167(H)×36(D)mm [Protruded parts excluded]								
Weight	approx. 350g [Include Batteries]								
Supplied accessories	Manual, Test report, Softcase, Hand strap, 4 AA Alkaline batteries								
	—	—	Analog output cable		Alarm output cable			—	Communication cable, software
Analog output	—	—	1mV/°C *TABLE III	10mV/°C *TABLE III	—	1mV/°C *TABLE III	10mV/°C *TABLE III	—	
Alarm output	—	—	—	—	○ *TABLE IV	○ *TABLE IV	○ *TABLE IV	—	—
Memory function	—	—	—	—	—	—	—	—	○ *TABLE V
Compatible standards	CE Marking, RoHS								

*1 Sampling period will be a user-selected time interval when time interval is specified at 10 seconds or more.

● TABLE I (Measurement range)

Thermocouple type	°C		°F	
	1°C Resolution	0.1°C Resolution	1°F Resolution	0.1°F Resolution
E	-200 ~ 800°C	-100.0 ~ 500.0°C	-328 ~ 1472°F	-148.0 ~ 932.0°F
K	-200 ~ 1370°C		-328 ~ 2498°F	
J	-200 ~ 1100°C	-100.0 ~ 400.0°C	-328 ~ 2012°F	-148.0 ~ 752.0°F
T	-200 ~ 400°C		-328 ~ 752°F	
R	0 ~ 1760°C		32 ~ 3200°F	

※ Switches automatically to 1°C resolution range when measured temperatures fall outside the 0.1°C resolution range.

● TABLE II (Measurement accuracy)

Thermocouple type	°C			°F		
	E, K, J, T	0.1°C Resolution	0°C ~	±(0.05% of reading + 0.2°C)	0.1°F Resolution	32°F ~
~0°C			±0.5°C	~32°F		±0.5°F
1°C Resolution		0°C ~	±(0.1% of reading + 1°C)	1°F Resolution	32°F ~	±(0.1% of reading + 2°F)
		~0°C	±(0.5% of reading + 1°C)		~32°F	±(0.5% of reading + 2°F)
R	1°C Resolution	±(0.1% of reading + 3°C)		1°F Resolution	±(0.1% of reading + 6°F)	

● TABLE III (Analog output)

Environment	Accuracy
25°C ±5°C	±(0.15% of F/S + 1mV)
Except 25°C ±5°C	±((0.15% of F/S + 1mV) + (0.01% of F/S))

※ Output Impedance 100Ω ※ F/S : full scale

● TABLE IV (Alarm output)

Output pattern	Upper limit	Lower limit
More than upper limit	H(5V)	L(0V)
Between upper and lower limit	L(0V)	L(0V)
Less than lower limit	L(0V)	H(5V)

※ Signal current of up to 5 mA can be taken out.

● TABLE V (Memory function)

Time interval	1 second, 5 seconds, 10 seconds, 30 seconds, 1 minute, 5 minutes, 10 minutes, 30 minutes, 60 minutes and manual memory
Memory capacity	9999 data

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