

Model **HD-1000** series

Handheld Thermometer



Model 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.

HD-1000模式系列

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。

HD-1000シリーズは、簡単に温度測定が出来るハンディタイプの温度計測器です。現場での温度チェックなど、汎用的にご使用いただけます。

**HD-1150K
HD-1150E**



HD-1150K

**HD-1250K
HD-1250E**



HD-1250K

**HD-1350K
HD-1350E**



HD-1350K

**HD-1450K
HD-1450E**



HD-1450K

**HD-1550K
HD-1550E**



HD-1550K

Function of HD-1000 series

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-1100K HD-1100E	HD-1150K HD-1150E	●	LCD		●	●						°C	
HD-1200K HD-1200E	HD-1250K HD-1250E	●	LCD	●	●	●	●	●				°C	
HD-1201K HD-1201E	HD-1251K HD-1251E		LCD	●	●	●	●	●			1mV/°C	°C	
HD-1202K HD-1202E	HD-1252K HD-1252E		LCD	●	●	●	●	●			10mV/°C	°C	
HD-1300K HD-1300E	HD-1350K HD-1350E		LCD	●	●	●	●	●	●	●		°C	
HD-1301K HD-1301E	HD-1351K HD-1351E		LCD	●	●	●	●	●	●	●	1mV/°C	°C	
HD-1302K HD-1302E	HD-1352K HD-1352E		LCD	●	●	●	●	●	●	●	10mV/°C	°C	
HD-1400K HD-1400E	HD-1450K HD-1450E	●	LED		●	●						°C	
HD-1500K HD-1500E	HD-1550K HD-1550E		LCD	●	●	●	●	●				°C	●
	HD-1650K HD-1650E	●	LCD		●	●						°C / °F	
	HD-1750K HD-1750E	●	LCD	●	●	●	●	●				°C / °F	

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

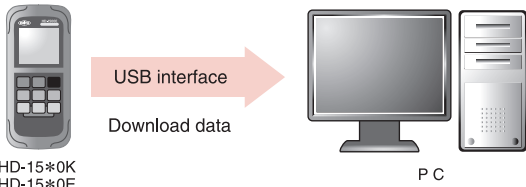
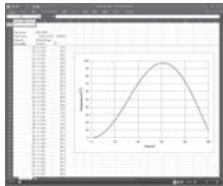


ANP:
Miniature size connector

Functions 功能

<p>Waterproof specifications 防水功能</p> <p>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.</p> <p>IPX5防水功能。可防御来自任何方向的喷水(12.5L/分)。</p>	<p>Memory function 记录功能</p> <p>Stores readings at user - selected time intervals. User specified time interval and the remaining amount of memory are displayed on the sub-display.</p>  <p>设定记录间隔和剩余可记录数同时显示。</p>
<p>Display 显示</p> <p>Large easy - to - read LCD display 便于确认的大型显示屏</p>	<p>Backlight 背光灯</p> <p>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</p>
<p>AUTO OFF Auto power - off 自动关闭</p> <p>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。</p> 	<p>1/0.1 Resolution change 分辨率切换</p> <p>Press the  key to change the resolution of readings. 按  键切换分辨率</p> 
<p>HOLD Hold 固定测量数据</p> <p>The thermometer stops measurement by the  key and holds the present readings. 按  键, 可固定测量数据并保持该数据的显示。</p> 	<p>P/V HOLD P / V Hold P / V 值固定</p> <p>The peak (Max.) value and the valley (Min.) value can be displayed by the  key on the sub-display. 可固定测量温度的最大值或最小值</p> 
<p>CAL SET Calibration 校准</p> <p>The displayed value can be adjusted by the  key. 可设定测量标准值。</p> 	<p>ALM SET Alarm output 报警输出</p> <p>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。</p> 
<p>Analog output 模拟输出</p> <p>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。</p>	<p>°C / °F °C / °F Change °C / °F 切换</p> <p>Press the  key to change the temperature unit of the displayed temperature. 按  键切换°C与°F。</p>

Software for HD-15*0 (AMS-100) 专用软件

<p>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。</p>  <p>HD-15*0K HD-15*0E</p> <p>PC</p>	<p>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。</p> 
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Operational environment of software (AMS-100)

O S	Microsoft® Windows® XP (SP.3 or newer), Windows Vista®, Windows® 7 (for English)
Memory · Hard-disk space	Normal operating environment of OS

※ All PCs under the recommended environment are not guaranteed to work successfully with AMS-100.

※ AMS-100 can be used only by the user that has a system administrative right (Administrator).

※ AMS-100 does not support Mac OS.

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



※ Image picture of waterproof specifications
 ※ 防水功能图片



※ Image picture of temperature measurement
 ※ 测量温度图片

● 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

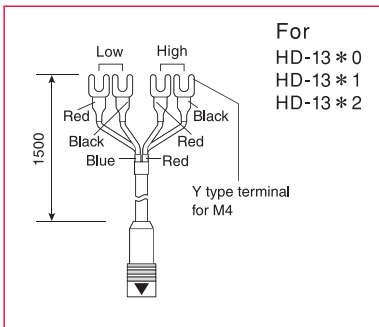


For
 HD-12 * 1
 HD-12 * 2
 HD-13 * *
 HD-15 * 0

A-115-200-HR-R (for AC115)
 A-220-200-HR-R (for AC220)
 Not CE-approval

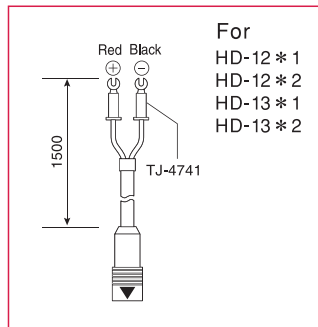
Supplied accessories

Alarm output cable
 报警输出线



ALMHA-1.5

Analog output cable
 模拟输出线



ANGHA-1.5

Communication cable
 通信用USB线



AM-USB (for USB)

Software for HD-15 * 0 (CD-ROM)
 软件



AMS-100

※ 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

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*) Not switchable								
Signal source resistance	MAX 500 Ω								
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 (AMS-100)	
Analog output	—	—	1mV/°C	10mV/°C	—	1mV/°C	10mV/°C	—	—
			*TABLE III	*TABLE III		*TABLE III	*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		-328 ~ 2012°F	
T	-200 ~ 400°C	-100.0 ~ 400.0°C	-328 ~ 752°F	-148.0 ~ 752.0°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°C	± (0.05% of reading + 0.2°C)	0.1°F Resolution	32°F ~ ~32°F
0°C ~ ~0°C			± 0.5°C	± 0.5°F		
1°C Resolution		0°C ~ ~0°C	± (0.1% of reading + 1°C)	1°F Resolution	32°F ~ ~32°F	± (0.1% of reading + 2°F)
		0°C ~ ~0°C	± (0.5% of reading + 1°C)		± (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	1second, 5 seconds, 10 seconds, 30 seconds, 1 minute, 5 minutes, 10 minutes, 30 minutes, 60 minutes and manual memory
Memory capacity	9999 data