

# 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





## 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 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 (2013) )									
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	
	0.1°C Resolution	1°C Resolution	0.1°F Resolution	1°F Resolution
E, K, J, T	0.1°C Resolution	0°C ~ ±(0.05% of reading + 0.2°C)	32°F ~ ±(0.05% of reading + 0.4°F)	
		~0°C ±0.5°C	~32°F ±0.5°F	
	1°C Resolution	0°C ~ ±(0.1% of reading + 1°C)	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)**

Model	HD-12*1	HD-13*1	HD-12*2	HD-13*2
Rate	1mV/°C		10mV/°C	
Range	All range at 1°C resolution		All range at 0.1°C resolution	
Resistance	100Ω			
Accuracy	±(0.15% of F/S + 1mV) at 25°C±5°C ±(0.15% of F/S + 1mV) ±(0.01% of F/S) except 25°C±5°C			

**\*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, 30seconds, 1minute, 5 minutes, 10minutes, 30 minutes, 60minutes and manual memory
Memory capacity	9999 data