## SD Card, real time data recorder + type K/J thermometer

# CUP ANEMOMETER

Model: AM-4257SD

ISO-9001, CE, IEC1010

www.yalab.com.tw 02-2389-0101









The Art of Measurement

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#### **FEATURES**

* Cup anemometer, available for the outside air speed			
measurement and recording.			
* Cup probe have included tripod fix nut.			
* Air velocity: m/S, Ft/min, Km/h, Knots, Mile/h,			
* Air temperature ( °C , °F )			
* Type K, Type J thermocouple thermometer.			
* Air Temp. used thermistor sensor, fast response time.			
* Real time SD memory card Datalogger, it Built-in Clock			
and Calendar, real time data recorder , sampling time set			
from 1 second to 3600 seconds.			
* Manual datalogger is available ( set the sampling			
time to 0 ), during execute the manual datalogger			
function, it can set the different position ( location ) No.			
( position 1 to position 99 ).			
* Innovation and easy operation, computer is not need			
to setup extra software, after execute datalogger, just			
take away the SD card from the meter and plug in the			
SD card into the computer, it can down load the all the			
measured value with the time information			
( year/month/date/ hour/minute/second ) to the Excel			
directly, then user can make the further data or graphic			
analysis by themselves.			
* SD card capacity: 1 GB to 16 GB.			
* LCD with green light backlight, easy reading.			
* Can default auto power off or manual power off.			
* Data hold, record max. and min. reading.			
* Microcomputer circuit, high accuracy.			
* Power by UM3/AA ( 1.5 V ) x 6 batteries or DC 9V adapter.			
* RS232/USB PC COMPUTER interface.			
* Separate probe, easy for operation of different			
measurement environment.			
* Wide applications: use this anemometer to check air			
conditioning & heating systems, measure air velocities, wind temperatureetc.			

#### **GENERAL SPECIFICATIONS**

Circuit	Custom mi	Custom microprocessor LSI circuit.			
Display		LCD size : 52 mm x 38 mm LCD with green backlight ( ON/OFF ).			
Measurement	Air velocity	Air velocity:			
Unit	m/S (me	m/S (meters per second)			
	Km/h ( kilometers per hour )				
	, ,	Ft/min ( FPM, feet per minute )			
		Knots ( nautical miles per hour )			
		Mile/h ( mph, miles per hour )			
	Air temperature: °C, °F				
	Type K/ Type J thermometer.				
Datalogger	Auto	1, 2, 5, 10, 30, 60, 120, 300,			
Sampling Time	600, 1800 3600 second.				
Setting range	@ Sampling time can set to 1 seco				
		but memory data may loss.			
	Manual	Push the data logger button			
		once will save data one time.			
		@ Set the sampling time to 0 second.			
		@ Manual mode, can also select the			
		1 to 99 position ( Location ) no.			
Memory Card	SD memory	SD memory card. 1 GB to 16 GB.			
Advanced	* Set clock	* Set clock time ( Year/Month/Date,			
setting	Hour/Minu	Hour/Minute/ Second )			
	* Set sampling time				
	* Auto power OFF management				
	* Set beep Sound ON/OFF				
	* Decimal point of SD card setting				
	* SD memory card Format				
	* Set thermometer type to Type K or Type J				
Data Hald		* Set temperature unit to °C or °F			
Data Hold	rreeze the	Freeze the display reading.			

Temperature	Automatic temp. compensation for the		
Compensation	Anemometer function and the type K/J		
	thermometer.		
Memory Recall	Maximum & Minimum value.		
Sampling Time	Approx. 1 second.		
of Display			
Data Output	RS 232/USB PC computer interface.		
	* Connect the optional RS232 cable		
	UPCB-02 will get the RS232 plug.		
	* Connect the optional USB cable		
	USB-01 will get the USB plug.		
Operating	0 to 50 ℃.		
Temperature			
Operating	Less than 85% R.H.		
Humidity			
Power Supply	* Alkaline or heavy duty DC 1.5 V battery		
	( UM3, AA ) x 6 PCs, or equivalent.		
	* DC 9V adapter input. ( AC/DC power		
	adapter is optional ).		
Power Current	Normal operation ( w/o SD card save		
	data and LCD Backlight is OFF):		
	Approx. DC 15 mA.		
	When SD card save the data and LCD		
	Backlight is OFF):		
	Approx. DC 36 mA.		
Weight	347 g/ 0.76 LB. * Meteronly		
Dimension	Main instrument :		
	182 x 73 x 47.5 mm		
	( 7.1 x 2.9 x 1.9 inch )		
	Anemometer sensor head:		
	Round, 72 mm Dia.		
Accessories	* Instruction manual 1 PC		
Included	* Anemometer probe 1 PC		
	* Hard carrying case ( CA-06 ) 1 PC		
Optional	SD Card ( 4 G )		
Accessories	Type K thermocouple probe.		
	AC to DC 9V adapter.		
	USB cable, USB-01.		
	RS232 cable, UPCB-02.		
	Data acquisition software,SW-U801-WIN.		
	Excel data acquisition software, SW-E802.		

#### ELECTRICAL SPECIFICATIONS (23 $\pm$ 5 $^{\circ}$ C)

#### Air velocity

Measurement	Range	Resolution	Accuracy
m/S	0.9 - 35.0 m/S	0.1 m/S	± ( 2%+0.2 m/S)
Km/h	2.5 - 126.0 Km/h	0.1 Km/h	± ( 2%+0.8 Km/h)
Knot	1.4 - 68.0 Knots	0.1 mph	± ( 2%+0.4 Knots)
Ft/min	144 - 6895 Ft/min	0.1 Knots	± ( 2%+40 Ft/min)
Mile/h	1.6 - 78.2 Mile/h	1 FPM	± ( 2%+0.4 Mile/h)

#### Air temperature

Measuring Range	0 $^{\circ}\mathrm{C}$ to 50 $^{\circ}\mathrm{C}/32$ $^{\circ}\mathrm{F}$ to 122 $^{\circ}\mathrm{F}$		
Resolution	0.1 ℃/0.1 °F		
Accuracy	± 0.8 ℃/1.5 °F		

#### Type K/J thermometer

Sensor	Resolution	Range	Accuracy
Type			
Type K	0.1 ℃	-50.0 to 1300.0 ℃	± (0.4 % + 0.5 °C)
		-50.1 to -100.0 ℃	± (0.4 % + 1 °C)
	0.1 °F	-58.0 to 2372.0 °F	± (0.4 % + 1 °F)
		-58.1 to -148.0 °F	$\pm$ (0.4 % + 1.8 °F)
Type J	0.1 ℃	-50.0 to 1200.0 ℃	± (0.4 % + 0.5 °C)
		-50.1 to -100.0 ℃	± (0.4 % + 1 °C)
	0.1 °F	-58.0 to 2192.0 °F	± (0.4 % + 1 °F)
		-58.1 to -148.0 °F	± (0.4 % + 1.8 °F)

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