

# Product Datasheet

## Two-Channel Humidity, Temperature and Dew Point Data Logger with USB Interface and LCD Display

*It Can Also Be Used As an Easy and Portable Meter*

### INTRODUCTION

This data logger measures and stores up to 32,000 humidity(0 to 100%RH) and temperature(-35 to 80°C(-31~176°F)) readings. Dew point and more professional applications can be provided by the PC software DGraph™. Logger status, alarm indication and low battery indication are via flashing red/green LED and yellow LED. The button on housing can be used to start logging, or confirm and clear LED alarm when LED alarm is hold status.

User can plug data logger straight into PC's USB port without any cables. Before getting started, user need to install USB driver and DGraph™ software, provided on the CD which is included in product packing box. All the software can run under Windows XP, Vista, 7 or 8(32 bit and 64 bit Versions). User can easily use DGraph™ software to setup sample rate(from 10 seconds to 12 hours), high/low alarm limit and start/stop method, and download data to PC, etc. And then user can view, analyse and print the data, or export other file formats(txt, xls, csv, bmp, jpg).

Especially, for some professional applications, user can set access password, name each channel, enable/disable specified channel, input calibration data for each channel, disable LED indication for saving power, and select sample mode(Instant, Average, Maximum and Minimum), etc.



### APPLICATIONS

This data logger is used mainly to monitor and verify humidity&temperature-sensitive goods, equipment or areas. e.g.:

- |                  |                            |  |
|------------------|----------------------------|--|
| ■ Shipping       | ■ Computer Rooms           | ■ Libraries                            |
| ■ Food           | ■ Communications Equipment | ■ HVAC                                 |
| ■ Pharmaceutical | ■ Containers               | ■ Refrigeration                        |
| ■ Warehouse      | ■ Aircraft Cabins          | ■ Agriculture and Livestock            |
| ■ Museums        | ■ Equipment Run Time       | ■ Greenhouses                          |
| ■ Buildings      | ■ Laboratories             | ■ Environmental and Weather Monitoring |



### BENEFITS

- Portable, precise, compact and low cost
- Easy to log and analyse data
- Unique and uniform PC software *DGraph™* can meet your higher requirements
- Elaborate design make it perfectly work in more application field
- Strict design ensure long term reliable work
- Enhanced electrostatic protection design to prevent unexpected damage
- Each unit have single serial number identified by *DGraph™* software to manage data simply
- All data from different data logger and all different measurement parameters can be graphed and analysed together

### FEATURES

- USB interface directly communicate with PC for setup and data download
- User can set access password for data logger
- User can name each channel and enable/disable specified channel freely
- LED alarm enable/disable, LED alarm hold enable/ disable and alarm limit settings for all channels via *DGraph™*
- User can input formula to customize compound graph from selected logging data
- User can create and customize new unit easily and freely for all measurement parameters
- Logging status indication via red/green LED and battery status indication via yellow LED
- Start logging method: Immediately, Button, Delayed
- User can input two point calibration value for each channel when setup
- Dew point calculated via software *DGraph™*
- IP66 environmental protection
- Long battery life: Approx. 4 Years @ 10 Minute Sample Rate
- Replaceable lithium battery and logged datas are not lost if battery exhausted

Low Cost

Easy to Use

DGraph™  
Software

4 Years  
Battery  
Life

Single Series  
Number

Password  
Restriction

# SPECIFICATIONS

Measurement		
Relative Humidity	Measurement range	0~100%RH
	Accuracy(Typ.) <sup>Figure 1</sup>	±3%RH
	Resolution	0.1%RH typically
	Long Term Drift	<0.5%RH per year
Temperature	Measurement range	-35~80℃(-31~176°F)
	Accuracy(Typ.) <sup>Figure 2</sup>	±0.3℃(±0.5°F)
	Resolution	0.1℃ / 0.2°F
	Long Term Drift	Negligible
General		
Number of Channels	Double Channels (One for humidity and the other for temperature) User can enable/disable any channels when setup via <i>DGraph™</i>	
Memory Capacity	64KBytes(Total 32,000 readings for all channels)	
Sample Rate	Can be selected from 10 seconds to 12 hours	
Start Method	Immediately, Start by button, and Start at date&time	
Stop Method	Stop when memory full, overwrite when memory full, and stop until specified number of sample points finished	
Sample Mode	Instant(default), average, maximum and minimum This will decide how to dispose data at idle time between a sample interval	
Button	Software config to start logging bybutton, or clear and reset LED alarm when LED alarm is hold	
LED	Red&green LED: Logger Status indication(Include Delay to Start, Logging, Alarm, Finished) (Software can disable this two LED for saving power) Yellow LED: Low battery indication	
Alarm	User programmable high or low alarm limit for each channel(If necessary) LED alarm and hold	
Communication	Direct USB connection Need to install the driver provided on CD	
PC Software	<i>DGraph™</i> software and USB driver required (Included on CD) (Compatible with Windows XP, Windows Vista, Windows 7&8(32 bit & 64bit Versions)) Use these software to setup, download, view graph and analyse data	
Power Supply	User replaceable 1/2AA 3.6V Lithium Battery 1200mAh <i>NOTE: USB interface can supply power directly if necessary</i>	
Battery Life	Approx. 2 Years @ 1 Minute Sample Rate Approx. 4 Years @ 10 Minute Sample Rate Approx. 8 Years without any sample task <i>NOTE: It also Depends on ambient temperatures and using of LEDs</i>	
Operating Range	0 to 100%RH -35 to 80℃(-31 to 176°F)	
Storage Range	Recommended: 20 to 60%RH 10 to 50℃(50 to 122°F)	
Case Material	ABS, TPU, PC	
Dimensions	123mm×37mm×23mm(4.8"×1.5"×0.9")	
Weight	Approx. 90 grams(3.19 oz)	
Mounting	Mounting bracket (Optional) or locking eyelet	
Standard Compliance	IP66 	

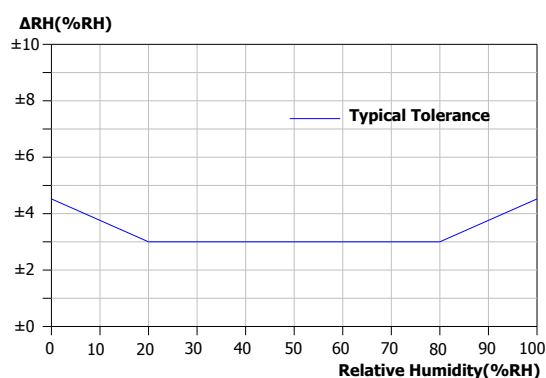


Figure 1: Typical tolerance at 25℃ for relative humidity

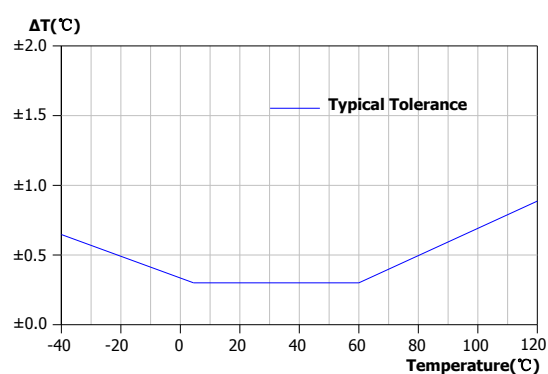


Figure 2: Typical tolerance for temperature in °C

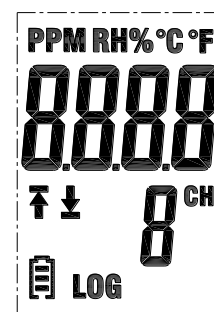


Figure 3: LCD overview

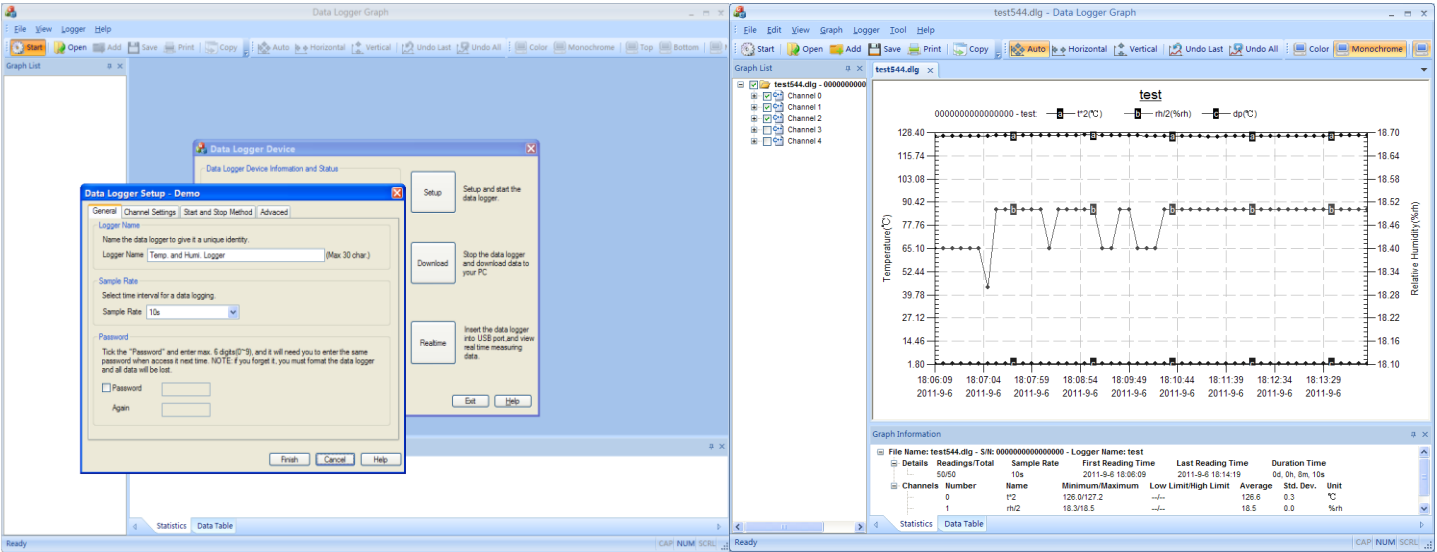
HOW TO START

This new data logger is designed to use very easily. You only need to operate step by step according to the "Quick Start Guide" included in product packing box(or pdf file on the CD). Below is all related document:

- Product Datasheet Current document, included on the CD
- Quick Start Guide Printed and included on the CD
- DGraph™ Software Datasheet Included on the CD
- DGraph™ Software Guide Included on the CD or on the help menu of DGraph™ Software user interface
- Product Selection Guide Included on the CD

SOFTWARE

Software need to be used to setup and start data logger as well as download, graph, analyse, print and export data to other file formats. Data logger standard kit include the software named DGraph™ which can run under Windows XP, Vista, 7&8(32 bit and 64 bit Versions).For all details, please see the "DGraph™ Software Datasheet" and "DGraph™ Software Guide" on the CD included in product packing box.



BATTERY REPLACEMENT

When battery is exhausted or replaced, stored readings aren't lost. However, the latest logger task which have not been finished will be stopped and can't be restarted even if new battery installed. You can setup datalogger via DGraph™software to restart new task.Especially, you can download data without battery because USB interface can supply power directly.We recommend that you check the battery capacity before some important logging task.

WARNING:

Handle lithium batteries carefully, observe warnings on battery case, and dispose of in accordance with local regulations.

ORDER INFORMATION

Picture	Description	Part #
	<p>Data Logger Standard Kit</p> <ul style="list-style-type: none"><li>&gt;&gt;Data logger</li><li>&gt;&gt;CD with USB driver ,DGraph™ Professional software, and all related documents</li><li>&gt;&gt;Quick start guide</li><li>&gt;&gt;1/2 AA 3.6V Lithium Battery</li><li>&gt;&gt; Mounting Bracket</li></ul> <p>Case Material: ABS Dimentions&amp;Weight:64mm×39mm×20mm (2.5"×1.5"×0.8"), Approx. 6 grams(0.21oz) Solution to Mounting a data logger on Wall, Door or Vertical Surface Mounted with Screws (Not Included) or Double Coated Foam Tape (Not Included)</p>	