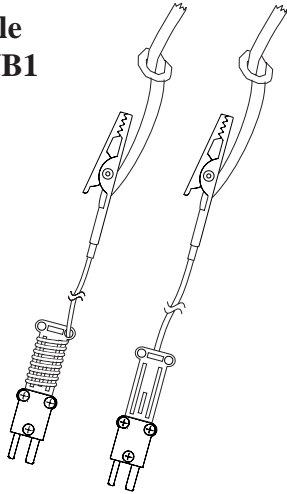
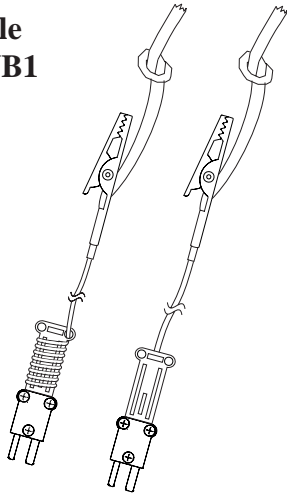


**K-type, Clip-on
Wet Bulb
Thermocouple
Model: ATWB1
Max: 150°F**



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Description

The ATWB1 is an inexpensive and effective way to take a wet bulb measurement. The ATWB1 is equipped with a durable hydrophilic sock specifically designed for wet bulb measurements. Increasing the reliability in the wet bulb measurements. The alligator clip allows the user to affix the ATWB1 to a fixed surface, such as a vent, allowing the user to take hands free measurements. The ATWB1 also comes with a wrap tab making it easy to wind and store the thermocouple.

The ATWB1 K-type thermocouple can be used continuously to take temperature readings up to 150°F. The ATWB1 can be used with any thermometer which accepts a K-type thermocouple.

Operation

To use the ATWB1 plug it into any thermometer accepting a K-type thermocouple. Then submerge soaked probe tip under water until it is fully saturated and place ATWB1 probe in air flow. The wet bulb reading will be the lowest reading before the temperature rises back up. You can use a thermometer's MIN function to make it easy.

 WARNINGS 
When testing hot temperatures, the thermocouple and metal alligator clip may become hot. Do not handle the thermocouple or the metal clip when hot.



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Calibration

Due to variances in the thermocouple wire and other parts of the system, a field calibration should be conducted before use. Field calibration typically gives +/- 1°F overall accuracy. The instructions for this calibration should be in the operating manual for the thermometer.

Broken Wires:

Due to frequent bending, the K-type thermocouple wire may break or come loose, typically near the plug. To repair, cut and strip the thermocouple wire near the plug. The red wire is the (-) wire and it belongs on the wider plug. Loosen the screws on plugs and wind the conductors around the appropriate screws and tighten. Finally, position the plugs into the tab and screw the tab back together.

Specifications

Thermocouple: K-type Nickel Chromium/Nickel Aluminum.

Accuracy: -50°F to 150°F +/- 4°F,

Range: -50°F to 150°F max continuous operation.

Probe insulation: While wire insulation may be designated for higher temperatures, due to the flammability of the wet sock we recommend that a maximum measured temperature of 150°F.

Plug: K-Type Thermocouple male mini plug.

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Warranty

The ATWB1, K-Type, clip-on, wet bulb thermocouple is warranted against manufacturer's defects for one year. This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the instrument. Any implied warranty arising out of the sale of Fieldpiece's products including but not limited to implied warranties of merchantability, and fitness for purpose, are limited to the above. Fieldpiece shall not be liable for incidental or consequential damages.

Service

Any defective ATWB1 should be returned to Fieldpiece for warranty service along with proof of purchase.



Fieldpiece Instruments, Inc.
580 West Central Avenue, Suite A
Brea, California 92821
(714) 257-9060 Fax: (714) 257-9069
www.fieldpiece.com

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		Relative Humidity (%RH)														
		Wet Bulb Temperature °F														
Dry Bulb Temperature (°F)		50	52	54	56	58	60	62	64	66	68	70	72	74	76	
	55		71	82	94											
	60		49	58	68	78	89	100								
	65		32	40	49	57	66	75	85	95						
	70		20	27	34	41	48	56	64	73	81	91	100			
	75		11	17	22	28	35	41	48	55	63	70	78	87	96	
	80		4	9	14	19	24	30	36	42	48	54	61	68	76	84
	85			3	7	12	16	21	26	31	36	42	48	54	60	67
	90				2	6	10	14	18	23	27	32	37	42	48	53
	95					2	5	9	12	16	20	24	28	33	37	42
	100						2	5	8	11	15	18	22	25	29	34
	105							2	4	7	10	13	16	20	23	27
	110								2	4	7	9	12	15	18	21
115									2	4	6	9	11	14	16	

Relative Humidity (%RH)

Relative humidity is often found to help evaluate air comfort or to find the target superheat of an air conditioning system. There are a few ways to find %RH. You can use an accessory head like the ARH4 to measure %RH, wet bulb, dew point or dry bulb directly. You could also use an actual sling psychrometer, or use the ATWB1 wet bulb thermocouple and a typical dry bulb thermocouple with the chart to the left.

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	75		11	17	22	28	35	41	48	55	63	70	78	87	96	
	80		4	9	14	19	24	30	36	42	48	54	61	68	76	84
	85			3	7	12	16	21	26	31	36	42	48	54	60	67
	90				2	6	10	14	18	23	27	32	37	42	48	53
	95					2	5	9	12	16	20	24	28	33	37	42
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