

Data Sheet

ABL162

HUMIDITY/TEMPERATURE TRANSMITTER



Supplied by

247able.com

Call us on +44 (0)118 916 9420 | Email info@247able.com

ABL162 HUMIDITY/TEMPERATURE TRANSMITTER

- **HUMIDITY, TEMPERATURE, DEW-POINT MEASUREMENT**

- **CONFIGURATION USING USB-PORT POWERED CONFIGURATOR**

- **USER-CALIBRATION FACILITY**

- **INTERCHANGEABLE DIGITAL SENSOR**

➤ **INTRODUCTION**

The ABL162 series are cost effective humidity and temperature transmitters with a dual two-wire (4 to 20) mA output. The design uses a digital sensor which plugs into the sensor stem. The product will measure humidity, temperature, dew-point and delta T (the difference between dew-point and ambient temperature) values.

Using our software (available free of charge), PC configuration allows you to measure any two of these 4 parameters on the ABL162. You can even program the ABL162 to measure the same parameter on both loops.

Configuration is performed quickly using our new USB-port configurator, by connecting the transmitter to the configurator and following the software instructions. The software allows you to tag the device, set installation date and set output range. Either fixed ranges or your own custom ranges can be configured for temperature output types in °C or °F and RH in %.

➤ **FEATURE HIGHLIGHTS**

WALL/DUCT MOUNT

The ABL162 has wall and duct mount options.

REPLACEABLE SENSOR

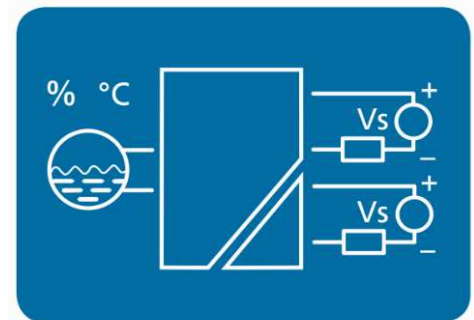
Should the measuring tip of the ABL162 become damaged or contaminated, the sensor tip is field-replicable for ease of maintenance.

USER-CALIBRATION/ALIGNMENT

The ABL162 can be user-aligned to a reference source or meter for %RH and temperature input readings.

USB CONFIGURATION

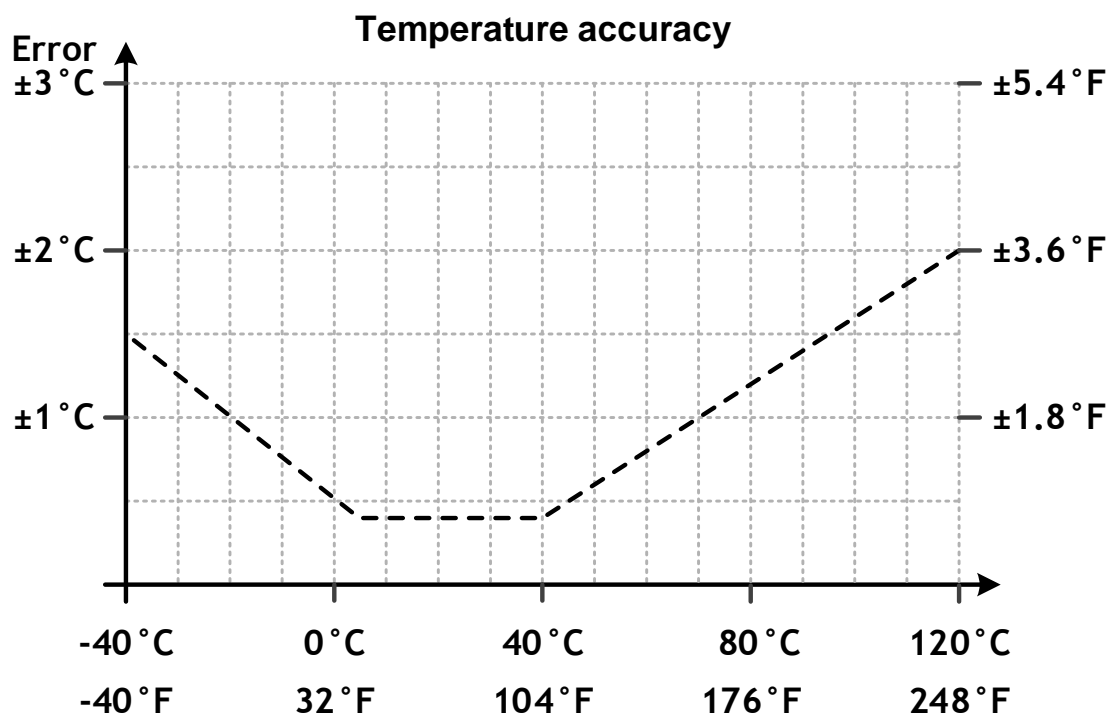
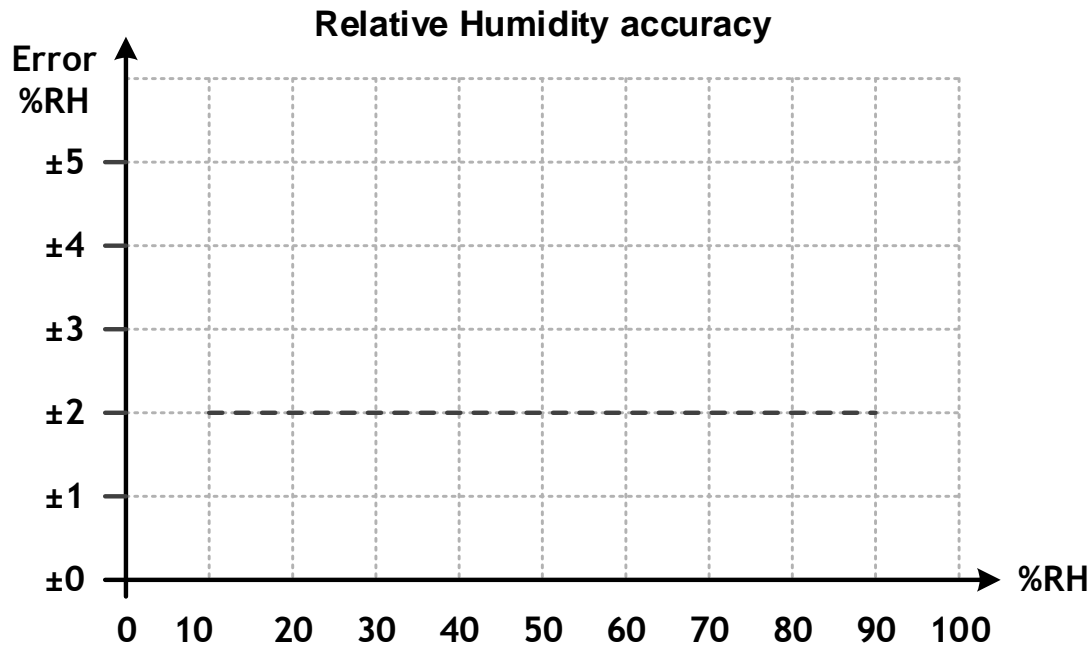
The ABL162 is quick and easy to set up using the USBSpeedLink software and can be set to %RH and temperature output options.



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INPUT	
Type/Function	Range/Description
Sensor type	Humidity/Temperature
Humidity range	(0 to 100) % RH
Temperature range	(-30 to 100) °C (See Defaults)

PROCESS ACCURACY (without Alignment)



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OUTPUT CH1 (CH2 when fitted)	
Type/Function	Range/Description
Output type	2 wire (4 to 20) mA current loop
Humidity range	(0 to 100) % RH
Humidity accuracy	(10 to 90) %, see graph Relative Humidity accuracy
Temperature range	(-30 to 100) °C, (- 22 to 212) °F
Temperature accuracy	See graph Temperature accuracy
Dew-point range	(-30 to 100) °C, (- 22 to 212) °F
(T ambient – T dew-point)	(0 to 50) °C, (32 to 122) °F
Accuracy	(mA out x 0.0005) or 5 uA (Whichever is the greater)
Loop Voltage effect	0.2 uA/V
Thermal drift	1 uA/°C
Maximum output	20.5 mA (in high fault condition)
Minimum output	3.9 mA (in low fault condition)
Maximum output load	[(Vsupply-10)/20] K Ohms (Example: 700 Ohms @ 24 V)

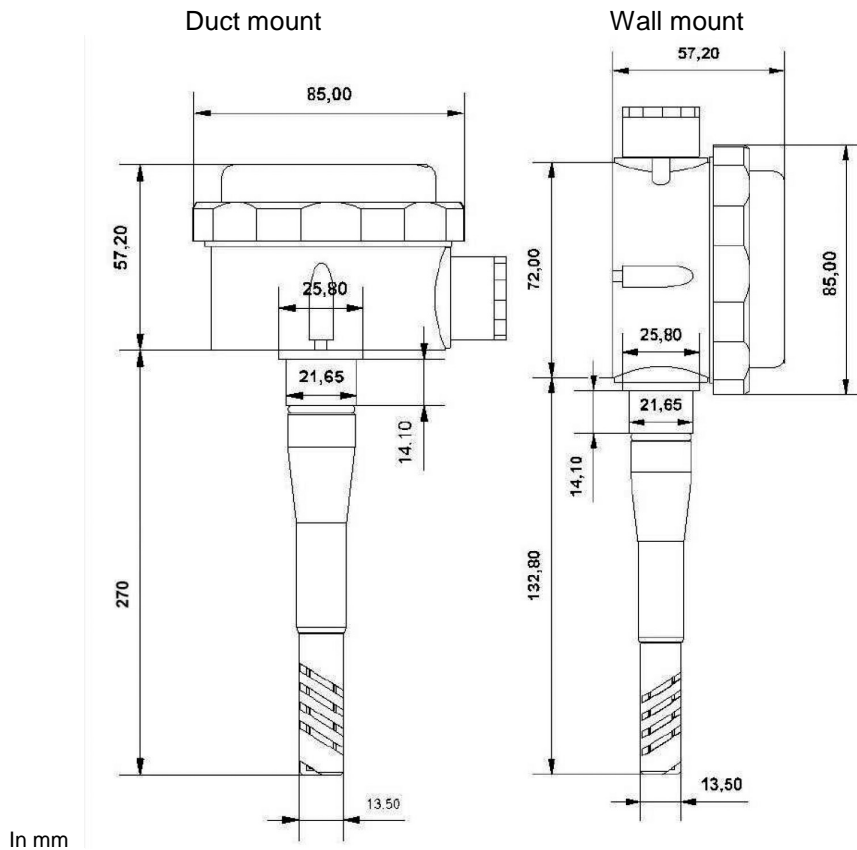
USB USER-INTERFACE		
Type/Function	Range/Description	Notes
Configuration hardware	USB module	USB-CONFIG-MKII
Configuration software	USBSpeedLink	Contact info@247able.com
Channel 1 Channel 2	RH, Temperature, Dew-point, Delta temperature	%, °C/°F
	Output range	mA
Tag number		6 characters
Alignment	%RH, Temperature	Off On: Offset, span, clear
Read live-data	%RH Temperature, Dew-point Delta temperature Output channel 1	% °C/°F °C/°F mA (+ channel 2 for ABL162)
Factory defaults		
ABL162 CH1	RH	(0 to 100) %
	Alignment	Off
	Display (option)	RH
ABL162 CH2	Temperature	(0 to 50) °C
	Alignment	Off

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GENERAL	
Function	Description
mA output response time	3 s
Supply voltage	(10 to 30) Volts dc, (15 to 30) Volts dc with display, SELV
Output connection	Two-part screw terminals
Start-up time	10 s (mA out < 4 mA during start-up)
Note: for channel 2 to give a (4 to 20) mA output, channel 1 must also be powered	
Should the measuring sensor become damaged or contaminated the measuring tip is field-replicable	
The sensor tip (P.N. HUMICHIP) is available for user fitting	

ENVIRONMENTAL	
Function	Description
Ambient temperature	Operating/Storage (-30 to 70) °C
Probe temperature	(-30 to 100) °C
Ambient humidity	Operating/Storage (0 to 100) %RH non-condensing
Protection	IP65 main housing, IP40 sensing tip
USB configuration ambient	(10 to 30) °C

MECHANICAL	
Function	Description
Dimensions	See below
Enclosure	Wall, duct mount
Material	ABS plastic with UV, UL rating HB: Grey
Connections	Screw terminals 2.5 mm wire maximum
Weight	170 g approximate



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APPROVALS	
EMC	BS EN 61326
Ingress protection	BS EN 60529
RoHS	Directive 2011/65/EU

ACCESSORIES	
Configuration software	USBSpeedLink (free of charge from info@247able.com)
Replacement measuring tip	HUMICHIP
Configuration	USB Configuration module
Calibration	Contact repairs@able.co.uk

To maintain full accuracy annual calibration is required. Contact info@247able.com for details.
The data in this document is subject to change. ABLE Instruments assumes no responsibility for errors.