



Agilent E1738A

Air Temperature/Pressure/Humidity Sensor

Data Sheet

The E1738A Air Sensor is used with the Agilent E1736A USB Sensor Hub as part of the 5530 Laser Calibration System. The E1738A Air Sensor connects to the E1736A USB Sensor Hub via a detachable E1739A/B/C/D sensor cable. Sensor cables come in different lengths (5 m, 10 m, 15 m, 25 m), they have easy snap-on connectors so users can quickly change cable lengths as needed.

The E1738A Air Sensor monitors the air in the environment of the measurement to enable the laser calibration system to automatically adjust for the changes to the laser wavelength. The sensor has a magnetic base for ease of attachment.



Specifications

E1738A Performance	Range	Resolution	Accuracy **
Air temperature	0 – 40°C (32 – 104°F)	0.004 °C (0.007 °F)	±0.1 °C (±0.2 °F)
Air pressure	70 – 110 kPa (10.2 – 16.0 psia)	5 Pa (0.001 psi)	±80 Pa (±0.012 psi)
Air humidity	10 – 90%	1%	±5%
<i>** with yearly calibration</i>			
Time constant	5 min typical		
Refresh rate	per 4 s (per 15 s with Metrology Application Software 10747F Rev F.04.04 or later)		
Power requirement	+3.3 V at maximum current (6 mA) +3.3 V at average current (0.6 mA)		
Power dissipation	2 mW typical		
Dimensions	Φ42 x 26 mm (Φ1.65 x 1.02 in)		
Weight	60 g (0.13 lb)		
Certification	ISO 17025		
Warranty	3 years (5 years option available)		



Related Literature

Publication title	Publication number
Agilent 5530 Laser Calibration System Brochure	5989-9354EN
Agilent 5530 Laser Calibration System Data Sheet	5989-9712EN

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