

CALIBRATION AND MEASUREMENT CAPABILITIES (CMC)

Ozone Verification Station			
Measured Parameter	Reference Standard	Range	Uncertainty (k=2)
UV light absorption	Standard Reference Photometer 4	5 – 1117 ppb	± 2 % (stated error)

Digital Connections Accepted: RS232; RS232 to USB

Environmental Conditions Requirement: Temperature = 0 – 50 °C | Relative Humidity = N/A

Particulate Matter 2.5 Verification Station			
Measured Parameter	Reference Standard	Range	Uncertainty (k=2)
Volume and Mass	DryCal ML-800	0.5 – 50 mL/min	0.25 %, (standardized 0.5 – 50 mL/min ± 0.002 mL/min)
		5 – 500 mL/min	
		50 – 5000 mL/min	
		0.5 – 50 L/min	
		1 – 100 L/min	
Volume and Mass	Molbloc-L Element	0 – 50 mL/min	± 0.2 %, ± 0.02 % FS under 10 % FS
		0 – 100 mL/min	
		0 – 200 mL/min	
		0 – 500 mL/min	
		0 – 5 L/min	
		0 – 10 L/min	
		0 – 30 L/min	
		0 – 100 L/min	
Volume	Molbloc-S Element	0.050 – 0.600 L/min	± 0.2 % of reading
		0.500 – 6.000 L/min	
		5.000 – 60.000 L/min	
		10.000 – 120.000 L/min	

Digital Connections Accepted: RS232; 8 pin mini din connector to USB; RS232 to USB

Environmental Conditions Requirement: Temperature = -40 – 60 °C | Relative Humidity = 0 – 70 %

High Flow Verification Station			
Measured Parameter	Reference Standard	Range	Uncertainty (k=2)
Volume	5M175 Roots Meter	0 – 5000 CFM	± 0.5 % of reading

Environmental Conditions Requirement: Temperature = 0 – 50 °C | Relative Humidity = N/A

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Meteorological Verification Stations			
Measured Parameter	Reference Standard	Range	Uncertainty (k=2)
Pressure	CPC 6050	-15 – 50 psia	0.01 % full Span (0.04 kPa)
		-2 – 2 psia	0.01 % full Span (0.007 kPa)
		8 - 17 psia	0.01 % of reading
	CPC 6000	-100 to 300 kPa	0.01 % full Span (0.04 kPa)
		-35 to 35 kPa	0.01 % full Span (0.007 kPa)
		8 - 17 psia	0.01 % of reading
<i>Environmental Conditions Requirement: Temperature = 15 – 95 °C Relative Humidity = 5 – 95 %</i>			
Temperature	PRT 6" Probe	-196 - 420 °C	0.009 – 0.011 °C
<i>Environmental Conditions Requirement: Temperature = 13 – 33 °C Relative Humidity = N/A</i>			
Relative Humidity	Michell Instruments	-40 - 90 % at 23-25 °C	± 0.24 Dew Point (°C)
<i>Environmental Conditions Requirement: Temperature = -20 – 50 °C Relative Humidity = 0 – 100 %</i>			
Wind Speed	PLT200 Laser Tachometer	5 - 200,000 RPM	1.4 RPM + 0.01 % of Reading
<i>Environmental Conditions Requirement: Temperature = 10 – 40 °C Relative Humidity = 0 – 80 %</i>			
<i>Digital Connections Accepted: RS232; USB; RS232 to USB</i>			

Notes

Note 1: A Calibration and Measurement Capability (CMC) is a description of the best result of a calibration or measurement (result with the smallest uncertainty of measurement) that is available to the laboratory's customers under normal conditions, when performing more or less routine calibrations of nearly ideal measurement standards or instruments.

Note 2: Calibration and Measurement Capabilities are traceable to the national measurement standards of the U.S. or to the national measurement standards of other countries and are thus traceable to the internationally accepted representation of the appropriate SI (Système International) unit.

Note 3: The uncertainty associated with a measurement in a CMC is an expanded uncertainty using a coverage factor, $k = 2$, with a level of confidence of approximately 95 %.