

Discipline / Function		Cx Required Instrumentation (Effective January 1, 2023)																	Notes	Calibration Requirements
		RANGE					ACCURACY					RESOLUTION								
Air	Air Pressure	0	in wg	to	10	in wg	±	2%	of reading	±	0.001	in wg	0.001	in wg	<	1	in wg		12 Months	
		0	Pa	to	2500	Pa	±	2%	of reading	±	0.25	Pa	0.10	Pa	<	250	Pa			
	Air Velocity Instrument for Pitot Traverse	100	fpm	to	3500	fpm	±	5%	of reading	±	7	fpm	1	fpm					12 Months	
		0.50	m/s	to	20	m/s	±	5%	of reading	±	0.04	m/s	0.01	m/s						
	Digital Direct Reading Hood	100	cfm	to	2000	cfm	±	5%	of reading	±	7	cfm	1	cfm					12 Months	
		50	l/s	to	944	l/s	±	5%	of reading	±	4	l/s	1	l/s						
Temperature	Air Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F					12 Months	
		-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C						
	Immersion Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F					12 Months	
		-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C						
Humidity	Humidity Meter (w/Probe, if req'd)	10	% RH	to	90	% RH	±	3%	RH			1%						12 Months		
Electrical	Amperage Measurement	0.1	AC Ampere	to	100	AC Amperes	±	2%	of reading	±	5	digits	0.1	AC Ampere					12 Months	
	Voltage Meter - True RMS	1	VAC	to	600	VAC	±	2%	of reading	±	5	digits	1	Volt					12 Months	
Rotation	Rotation Measurement	60	rpm	to	5000	rpm	±	2%	of reading	±	2	rpm	1	rpm					12 Months	
Hydronic	Pressure Measurement	0.4	psi	to	200	psi	±	2%	of reading	±	1	psi	0.1	psi					12 Months	
		3	kPa	to	1400	kPa	±	2%	of reading	±	7	kPa	1	kPa						
	Δ Pressure measurement	0.4	psi	to	75	psi	±	2%	of reading	±	0.5	psi	0.01	psi					12 Months	
		3	kPa	to	500	kPa	±	2%	of reading	±	3.5	kPa	0.1	kPa						

**NOTES**

- \*1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)
  - \*2 FHT Orifice Calibrator - Choose only one.
  - \*3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)
  - \*4 Firms may own or rent vibration equipment instrumentation for vibration certification
  - \*5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced
  - \*6 Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.
  - \*7 Calibrated per Industry/Manufacturer standards.
  - \*8 Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.
- General Note:** Some local jurisdictions require qualified electrician for any electrical readings
- Calibration Requirement:** Instruments require a 3-point calibration, traceable to National Institute of Standards and Technology (NIST) or National Metrology Institute (NMI) unless otherwise noted.