



**GEO Calibration
Instruments**

High-Precision Instrument For Temperature & Humidity Calibration

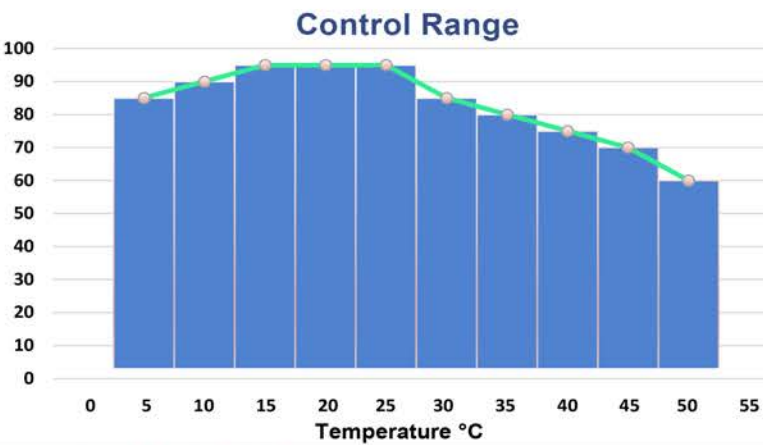


HygroMat|c Legacy

PRODUCT OVERVIEW

GENERAL SPECIFICATIONS

CALIBRATION TO (17025 TRACEABLE TO NIST)	TRANSFER STANDARD	No Charge		
	CERTIFICATE	17025 Validation (Additional Fees Apply)		
OPERATING AMBIENT CONDI- TIONS	TEMPERATURE	18 °C to 28 °C		
	HUMIDITY	Up to 80 % RH		
STORAGE CONDITIONS	TEMPERATURE	-20 °C to 50 °C		
	HUMIDITY	0 % to 95 % RH (non-condensing)		
ALTITUDE	2000 m			
CALIBRATION SYSTEM ACCURACY	TEMPERATURE	± 0.10 °C Or Better	Typically ± 0.05 °C	*Based on Probe Accuracy
	HUMIDITY	± 1.00 % RH Or Better	Specially tuned systems can be as good as ± 0.60 %	*Based on Probe Accuracy
	CONTROLLER TYPE	PID Controller		
UNIFORMITY	TEMPERATURE	0.10 °C Or Better	Typically ± 0.05 °C	
	HUMIDITY	0.30 % RH @ 18 °C to 28 °C Or Better	Typically ± 0.25 %	
STABILITY	TEMPERATURE	0.05 °C		
	HUMIDITY	0.15 % RH @ 18 °C to 28 °C		
WARM-UP PERIOD	AMBIENT CONDITIONS	30 Minutes Maximum		
	COLD	30 Minutes		
RESOLUTION	DISPLAY	Temperature	0.01 °C	
		Humidity	0.01 % RH	
		Dew Point	0.01 °C (Calculated)	
	USB	Temperature	0.01 °C	
		Humidity	0.01 % RH	



RAMP / SOAK RATE OF CHANGE			
*Depends on ambient and desiccant conditions			
TEMPERATURE	High → Low Low → High	1.50 °C / minute *Typical 5.00 °C / minute *Typical	
HUMIDITY	High → Low Low → High	5.00 % RH / minute *Typical 10.00 % RH / minute *Typical	
CONTROL RANGE			
TEMPERATURE	5 °C to 55 °C		
HUMIDITY@ 18°C	5 % to 95 % RH	HUMIDITY@ 35°C	5 % to 80 % RH
HUMIDITY@ 23°C	5 % to 95 % RH	HUMIDITY@ 40°C	5 % to 75 % RH
HUMIDITY@ 30°C	5 % to 85 % RH	HUMIDITY@ 50°C	5 % to 60 % RH

CONSUMABLES

WATER	RESERVOIR	200 ml	
	SPILL RESISTANT	Yes	
	REQUIRED FLUID	Distilled Water Only	
	EST. REFILL PERIOD	15 Days to 1 Month (Typical) *Depends on Usage	
	FILL INDICATOR	Floating Ball	
DESICCANT	TYPE	Molecular Sieve	
	REPLACEMENT	When Indicating Desiccant is 3/4 Used	
	REPLACEMENT FREQUENCY	Depends Entirely on User Workload	
	LOCATION	Left Side Mounted	
	FASTENER	Desiccant Mounting Bracket Provided	
RECALIBRATION	FREQUENCY	Depends on User Uncertainty Requirements	
		Once Per Year Recommended	

**Information subject to change, please visit our website for updates at www.geocalibration.com.

MECHANICAL

GENERATOR DIMENSIONS	Measurement Type	Width	Depth	Height
	Metric	55.33 cm	40.65 cm	24.65 cm
	English	21.78 in	16.02 in	9.70 in
CHAMBER DIMENSIONS	Measurement Type	Diameter	Depth	
	Metric	14.50 cm	20.00 cm	
	English	5.71 in	7.87 in	
WORKING DIMENSIONS AND VOLUME	Measurement Type	Diameter	Depth	
	Metric	12.50 cm	10.90 cm	
	English	4.92 in	4.29 in	
	Volume	1.5 Liter Effective Working Volume		
WEIGHT	Unit Only	Metric	15.5 kg	
		English	34.0 lb	
POWER SUPPLY		12 Volt DC @ 1A		
STANDARD PORT QUANTITY	Depends on doors	Availability: 6 Ports, 5 Ports, 4 Ports, 2 Ports		
CHILLED MIRROR PORTS	In and Out			
		Probe Range		Actual Unit Range
PROBE ANALOG OUTPUTS AVAILABLE	0 - 1 Volt	Temperature	- 40.00 to + 60.00 °C	+ 5.00 to + 55.00 °C
		Humidity	0 to + 100.00 %	+ 5.00 to + 95.00 %

Ordering Information

Standard Supply Package

*Customization is Available

* Complete Accessory List is Available at www.geocalibration.com

Square 6-Port Door	Desiccant Canister	Fill Syringe
7 Grommets (1/8",1/4", 3/8", 1/2", 5/8", 3/4", 7/8")	Mains Power Cord	Calibration Documents

Accessories

Doors	Shape		Port Quantity		Connector Type		Part Number	
	Square / Round		6-Port Door		M36 Connectors		01-001-00-0017 / 01-001-00-0018	
	Square / Round		4-Port Door		M36 Connectors		01-001-00-0003 / 01-001-00-0004	
	Square / Round		4-Port Door		SLIMLINE		01-001-00-0024 / 01-001-00-0025	
	Square		4-Port Chilled MirrorDoor		M36 Connectors		01-001-00-0010	
	Square		2-Port Door		M36 Connectors		01-001-00-0028	
Grommets	Port Type	Size (in)	Size (mm)	Part Number	Port Type	Size (in)	Size (mm)	Part Number
	M36	0.000"	0.000	01-004-09-0001	SLIMLINE	0.125"	3.175	01-004-09-0020
	M36	0.125"	3.175	01-004-09-0002	SLIMLINE	0.250"	6.350	01-004-09-0021
	M36	0.250"	6.350	01-004-09-0003	SLIMLINE	0.375"	9.525	01-004-09-0022
	M36	0.375"	9.525	01-004-09-0004	SLIMLINE	0.500"	12.700	01-004-09-0023
	M36	0.500"	12.700	01-004-09-0005	SLIMLINE	0.625"	15.875	01-004-09-0024
	M36	0.625"	15.875	01-004-09-0006	SLIMLINE	0.750"	19.050	01-004-09-0025
	M36	0.750"	19.050	01-004-09-0007	SLIMLINE	0.825"	20.950	01-004-09-0026
	M36	0.875"	22.225	01-004-09-0008	SLIMLINE	1.000"	25.400	01-004-09-0027
	M36	1.000"	25.400	01-004-09-0009				
Expansion Chamber	Description				Width	Depth	Height	Part Number
	Standard Expansion Chamber				220mm	286mm	345mm	01-054-00-0000
Additional	Description			Part Number	Description			Part Number
	Desiccant Canister w/ Material			01-200-11-0001	Chamber Insert			01-200-08-0025
	Desiccant Clamp			01-200-01-0013	(Various Desiccant Canisters and Expansion Chamber Available)			

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Proudly Made in the USA 

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Website: www.GeoCalibration.com

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Rev A