



**GEO**

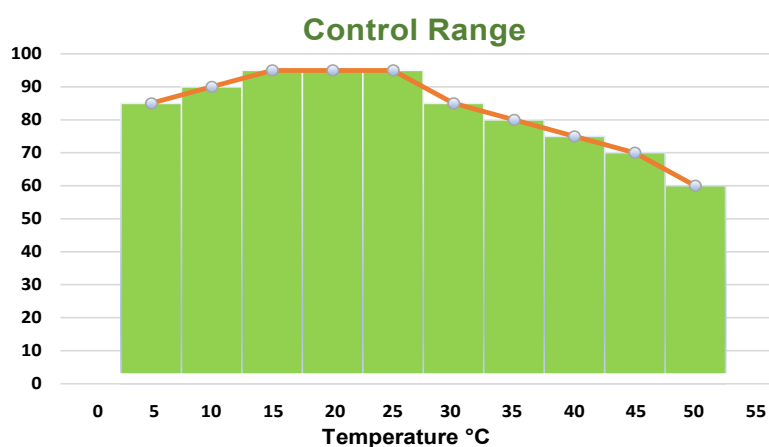
**Calibration**

**Model 2500 CM**

PRODUCT OVERVIEW

# GENERAL SPECIFICATIONS

|   |                    |  |  |                          |
|---|--------------------|--|--|--------------------------|
| CALIBRATION TO<br>(17025 TRACEABLE TO NIST) | TRANSFER STANDARD  | No Charge                                |  |                          |
|   | CERTIFICATE        | 17025 Validation (Additional Fees Apply) |  |                          |
| OPERATING AMBIENT CONDI-<br>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     |  |                          |
| 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 | 1.50 °C / minute *Typical    |
|             | Low → High | 5.00 °C / minute *Typical    |
| HUMIDITY    | High → Low | 5.00 % RH / minute *Typical  |
|             | Low → High | 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              | Front Mounted   |
|               | FASTENER              | Desiccant Doors   |
| RECALIBRATION | FREQUENCY             | Depends on User Uncertainty Requirements<br>Once Per Year Recommended |

\*\*Information subject to change, please visit our website for updates at [www.geocalibration.com](http://www.geocalibration.com).

# MECHANICAL

|                                |                  |  |                       |                      |
|--------------------------------|------------------|--|-----------------------|----------------------|
| GENERATOR DIMENSIONS           | Measurement Type | Width  | Depth                 | Height               |
|                                | Metric           | 46.82 cm   | 38.67 cm              | 23.47 cm             |
|                                | English          | 18.43 in   | 15.22 in              | 9.24 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   | 18.14 kg              |                      |
|                                |                  | English  | 40.00 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 ANALOG OUTPUTS AVAILABLE | 0 - 1 Volt       | Probe Range                                      | Actual Unit Range     |                      |
|                                |                  | 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](http://www.geocalibration.com)

|  |                    |                       |
|--|--------------------|-----------------------|
| Square 6-Port Door                                       | Desiccant Canister | Fill Syringe          |
| 7 Grommets<br>(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                                   | Part Number                      | Width  | Depth                           | Height    | Part Number    |           |                |
|                   | Standard Expansion Chamber                    |                                  | 220mm  | 286mm                           | 345mm     | 01-054-00-0000 |           |                |
| Additional        | Description                                   | Part Number                      | Note:  |                                 |           |                |           |                |
|                   | Desiccant Canister w/ Material Chamber Insert | 01-250-11-0001<br>01-200-08-0025 | (Various Desiccant Canisters and Expansion Chamber Available for This Unit.) |                                 |           |                |           |                |


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Humidity Control Company



Proudly Made in the USA 

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