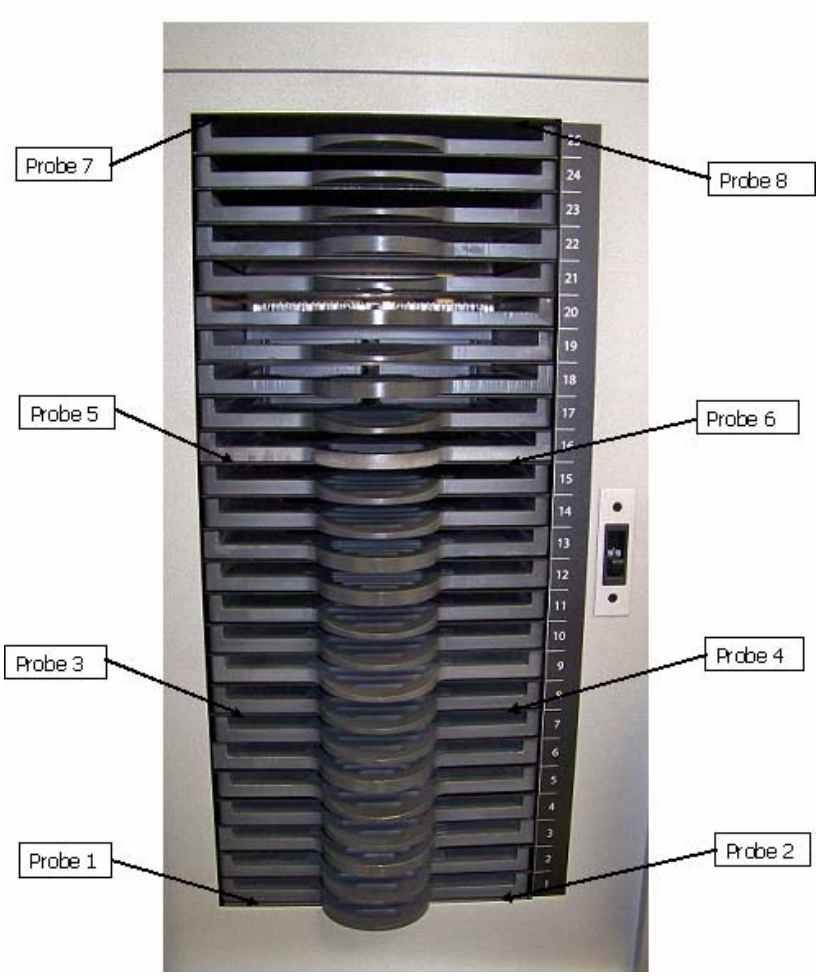
OmniLog® Temperature Stability

An OmniLog production unit was tested at the factory using calibrated thermocouples, in order to verify that temperature variability is within published claims. The chamber had trays inserted in all 25 shelves, which is the required mode of operation, regardless of whether they all contain microplates. The thermocouple probes were placed on four shelves throughout the chamber as shown below:



Ambient temperature was 24 °C, and the OmniLog temperature was set at 37 °C. From startup, 2.5 hours were allowed for the chamber to reach temperature and stabilize. Readings were taken with all probes five times, ten minutes apart. Results show that the temperature variability throughout the chamber and over time was less than +/- 2 °C.

Elapsed Time, Minutes	0	10	20	30	40	Average Over Time	Minimum Over Time	Maximum Over Time	**Variability over Time +/- from Average**
			Temperature °C						
OmniLog Set	37.0	37.0	37.0	37.0	37.0				
OmniLog Display	36.9	36.9	36.9	36.8	36.9				
Probe 1	37.7	37.7	37.9	37.9	37.7	37.8	37.7	37.9	**0.10**
Probe 2	37.5	37.5	37.4	37.5	37.4	37.4	37.4	37.5	**0.05**
Probe 3	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	**0.00**
Probe 4	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	**0.00**
Probe 5	36.8	36.8	36.9	36.9	36.9	36.9	36.8	36.9	**0.05**
Probe 6	36.9	36.9	36.9	36.9	37.0	36.9	36.9	37.0	**0.05**
Probe 7	37.8	37.7	37.7	37.6	37.7	37.7	37.6	37.8	**0.10**
Probe 8	37.6	37.6	37.7	37.6	37.7	37.6	37.6	37.7	**0.05**
Average Throughout Chamber	37.3	37.3	37.3	37.3	37.3				
Minimum Throughtout Chamber	36.8	36.8	36.9	36.9	36.9				
Maximum Throughout Chamber	37.8	37.7	37.9	37.9	37.7				
Variability throughout Chamber +/- from Average	**0.50**	**0.46**	**0.53**	**0.53**	**0.43**				