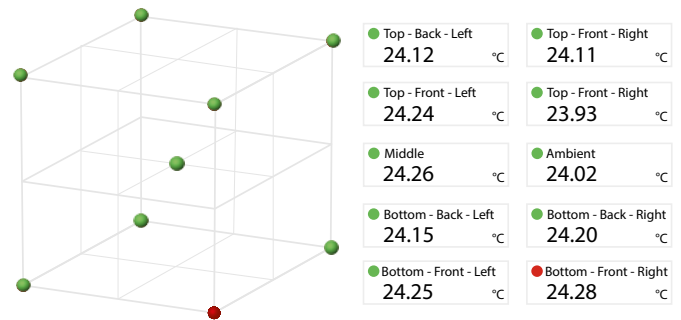


## RMS – ROTRONIC MONITORING SYSTEM – AREA/EQUIPMENT QUALIFICATION TOOL

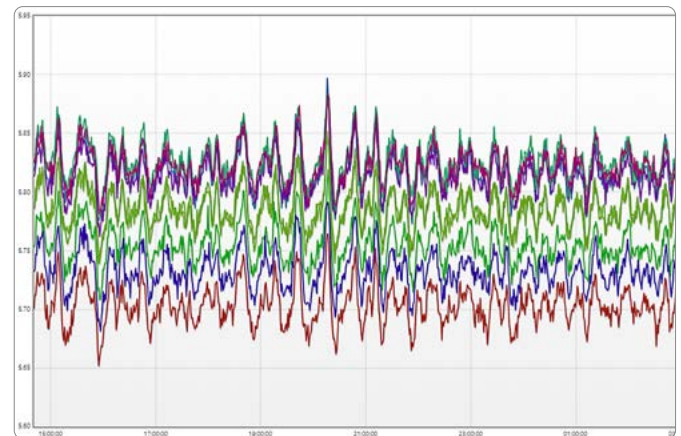


Temperature mapping, often referred to as thermal mapping, is a process used to systematically and comprehensively measure and analyze the temperature distribution within a specific environment or equipment. It is commonly used in various industries, such as pharmaceuticals, food, electronics, and healthcare, to ensure that temperature-sensitive products, materials, or equipment are stored or transported under controlled and consistent temperature conditions.



Rotronic AG have built in a temperature mapping function within the Rotronic Monitoring System (RMS) software to enable quick and effective mapping reports based upon the following guidelines:

- USP1079 Good storage and distribution practices for drug products
- WHO supplement 8 Temperature mapping of storage areas,
- NFX 15-140 Measurement of air moisture - Climatic and thermostatic chambers – Characterization and verification
- DIN12880 Electrical laboratory devices - Heating ovens and incubators



*Live view of the temperature curve of the individual measuring points.*



*View of data within set alarm bands.*

## Report Extract

The report will show the hot and cold points, with the time and date the measurements occurred.

Conclusion (temperature)			
Overall average of all measuring points:		24.32 °C	
Measuring point(s) lowest value (cold point)	MPT number	Value	Date/Time
Bottom - Back - Left	MPT-23715	23.08 °C	11/6/2023 4:56 AM
Middle	MPT-23716	23.18 °C	11/6/2023 4:58 AM
Bottom - Front - Left	MPT-23717	23.20 °C	11/6/2023 4:59 AM
Top - Back - Right	MPT-23718	23.11 °C	11/6/2023 5:14 AM
Top - Front - Right	MPT-23719	22.99 °C	11/6/2023 5:20 AM
Ambient	MPT-23720	23.08 °C	11/6/2023 5:21 AM
Bottom - Back - Right	MPT-23721	23.14 °C	11/6/2023 5:07 AM
Bottom - Right - Right	MPT-23722	23.20 °C	11/6/2023 5:10 AM
Top - Back - Left	MPT-23723	23.08 °C	11/6/2023 5:09 AM
Top - Front - Left	MPT-23724	23.22 °C	11/6/2023 4:47 AM
Measuring point(s) highest value (hot point)			
Bottom - Back - Left	MPT-23715	30.77 °C	11/6/2023 10:13 AM
Middle	MPT-23716	31.28 °C	11/6/2023 10:19 AM
Bottom - Front - Left	MPT-23717	30.42 °C	11/6/2023 10:19 AM
Top - Back - Right	MPT-23718	29.38 °C	11/6/2023 10:17 AM
Top - Front - Right	MPT-23719	33.31 °C	11/6/2023 10:27 AM
Ambient	MPT-23720	31.16 °C	11/6/2023 10:34 AM
Bottom - Back - Right	MPT-23721	31.68 °C	11/6/2023 10:17 AM
Bottom - Right - Right	MPT-23722	30.96 °C	11/6/2023 10:17 AM
Top - Back - Left	MPT-23723	31.12 °C	11/6/2023 10:18 AM
Top - Front - Left	MPT-23724	30.11 °C	11/6/2023 10:16 AM

Furthermore, the following data and a lot more can be reviewed for all of the measuring points:

- Calibration certificate number
- Loaded area/equipment
- Complete data overview, including the average value, minimum, maximum, standard deviation, and mean kinetic temperature, stability, and expanded uncertainty with a coverage factor of k=2
- Deviations from specified limits
- Graphical overview of each measuring point
- Recommendations, comments, and an electronic signature



Reach out to us to find out more about the thermal mapping function of [rms@rotronic.com](mailto:rms@rotronic.com)