Multisample Dynamic Moisture Sorption SPSx-1µ High Load

Fully automated, multisample gravimetric sorption analyzer. Determination of sorption and desorption isotherms and sorption kinetics over a wide temperature and humidity range.

Due to its innovative load cell technology, the SPSx-1µ High Load achieves a very high resolution over a wide load range of up to 220 g. In combination with the currently largest number of samples that can be measured simultaneously, this system is the most powerful and versatile vapor sorption analyzer on the market.

Technical data

Number of samples	two exchangeable sample trays are included:
	11 samples in dishes Ø 50 mm
	23 samples in dishes Ø 33 mm
Min sample weight	<30 mg
Max sample weight	220 g per sample (total max 500 g)
Balance resolution	dual weight range:
	1 µg resolution up to 22 g
	with ±5 µg repeatability RMS*,
	10 µg resolution from 22 g to 220 g
	with ±20 µg repeatability RMS*
Temperature range	+5 °C to +60 °C
Temperature accuracy	over time ±0.1 K
Humidity range	0 % RH to 98 % RH**
Humidity accuracy	±0.5 % RH (0 … 98 % RH), at 10 … 30 °C
Long term stability	better than 1 % RH per year
Water supply	removable tank, 700 ml
Gas supply	compressed air/N_2
	2.5 bar to 10 bar
	dry, clean, oil-free (class 1, ISO 8573-1:2010)
Dimensions & weight	width 488 mm, depth 630 mm, height 437 mm
	(1024 mm with open lid), weight 62 kg***
Environmental cond.	temperature +15 °C to +25 °C, humidity max 75 % RH
Power supply	100-240 VAC, 50-60 Hz, consumption: 0.5 kW***
Calibration sensor	calibration with salt solutions
Internal controller	operating system Windows 10 (English)
Software	SPS Software (English) incl. calibration tool
	21 CFR part 11 compliant software package (optional)
Data format	MS Excel, LIMS compliant data format
Optional hardware	camera, Raman, Permeability Kit, Large Objects Kit

* Root mean square. The specified values assume that the system is installed in an environment suitable for the operation of microbalances.
** The full humidity range can only be achieved at a chamber temperature slightly above room temperature.
*** Dimension, weight and power consumption do not include keyboard, mouse and monitor.