

## Multisample Dynamic Moisture Sorption SPSx-1 $\mu$ Advance

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

The SPSx-1 $\mu$  Advance model shows best weighing performance and a very high reproducibility of better than  $\pm 2 \mu\text{g}$  at a gravimetric resolution of  $1 \mu\text{g}$ . Small and medium sized samples are measured at extremely high resolution over the full load range from  $<10 \text{ mg}$  up to  $22 \text{ g}$ .



### Technical data

Number of samples

two exchangeable sample trays are included:

11 samples in dishes  $\varnothing 50 \text{ mm}$

23 samples in dishes  $\varnothing 33 \text{ mm}$

Min sample weight

$<10 \text{ mg}$

Max sample weight

$22 \text{ g}$  per sample

Balance resolution

$1 \mu\text{g}$

$\pm 2 \mu\text{g}$  repeatability RMS\*

Temperature range

$+5 \text{ }^\circ\text{C}$  to  $+60 \text{ }^\circ\text{C}$

Temperature accuracy

over time  $\pm 0.1 \text{ K}$

Humidity range

$0 \text{ \% RH}$  to  $98 \text{ \% RH}^{**}$

Humidity accuracy

$\pm 0.5 \text{ \% RH}$  ( $0 \dots 98 \text{ \% RH}$ ), at  $10 \dots 30 \text{ }^\circ\text{C}$

Long term stability

better than  $1 \text{ \% RH}$  per year

Water supply

removable tank,  $700 \text{ ml}$

Gas supply

compressed air/ $\text{N}_2$

$2.5 \text{ bar}$  to  $10 \text{ bar}$

dry, clean, oil-free (class 1, ISO 8573-1:2010)

Dimensions & weight

width  $488 \text{ mm}$ , depth  $630 \text{ mm}$ , height  $437 \text{ mm}$

( $1024 \text{ mm}$  with open lid), weight  $62 \text{ kg}^{***}$

Environmental cond.

temperature  $+15 \text{ }^\circ\text{C}$  to  $+25 \text{ }^\circ\text{C}$ , humidity max  $75 \text{ \% RH}$

Power supply

$100\text{-}240 \text{ VAC}$ ,  $50\text{-}60 \text{ Hz}$ , consumption:  $0.5 \text{ kW}^{***}$

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

\* 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.