

SURFACE AREA AND PORE SIZE DISTRIBUTION ANALYZER

BELSORP MAX G



The BELSORP MAX series has been extended by a powerful, compact and cost-effective model. The BELSORP MAX G is a special instrument for measuring porous / non-porous material in the micro- to macroporous range (BET specific surface area / pore size distribution) and features one sample port.

FEATURES

- | BET and PSD from micro to meso and macropores by gas adsorption measurement of N₂ (77.4K), Ar (87.3K)
- | Low BET specific surface area by Kr gas measurement at 77.4K
- | High performance PSD analysis by GCMC • NLDFT in BELMaster Version 7
- | Actual and short time evaluation for each adsorption point by gas dosing optimization (GDO) function



TYPICAL APPLICATIONS

Used in various fields such as catalysts, batteries, fibers, polymer materials, chemicals, pigments, cosmetics, magnetic powder, separation membranes, filters, toner, cement, ceramics, semiconductor materials, etc.



To find the best solution for your particle characterization needs, visit our application database

TECHNICAL DATA

Please note that the specifications below are just an exemplary configuration.

Please contact us to discuss your individual requirements.

Measurement principle	Volumetric method + AFSM™
Adsorption gas	N ₂ , Ar, Kr, CO ₂ , H ₂ , CH ₄ , butane, and other non-corrosive gases
Gas ports	2 ports (5 ports max.)
Number of measurements (High Accuracy mode)	1 port in High Accuracy mode
Measurement range (specific surface)	0.01 m ² /g and above (N ₂) 0.0005 m ² /g and above (Kr) (depending on sample density)
Pore size distribution (Diameter)	0.35 - 500 nm
Low pressure isotherm	$p/p_0 = 10^{-8}$ (N ₂ @77K, Ar @87K)
Pressure transducer	133 kPa (1000 Torr) x 3 units 1.33 kPa (10 Torr) x 1 units 0.0133 kPa (0.1 Torr) x 1 unit
Vacuum gage / pump	Turbo molecular pump + rotary pump Cold cathode gauge (optional)
Sample tube	Standard tube, approx. 1.8 cm ³ (optional: 5 cm ³)
Dewar vessel	Volume: 2.6 l Holding time: 80 h
Pretreatment heater	50 - 450°C
Water bath	-10 - 70°C
Analysis software BELMaster™ 7	Adsorption isotherm, BET specific surface area I type (ISO9277), BET automatical analysis, Langmuir specific surface area, BJH, DH, CI, INNES method, t-plot, Alpha-s plot
Analysis software BELMaster™ 7 cont.	HK, SF, CY method, NLDFT / GCMC (OP BELSim™), MP method, Dubinin-Astakhov method, Difference adsorption isotherm, Molecular probe, Adsorption rate analysis (opt.)
Dimensions (W x H x D)	320 x 740 x 465 mm
Weight (main body)	36 kg
Utility - Gas	He, adsorption gas: 0.1MPa (G), purity: more than 99.999% Joint: 1/8" Swagelok joint

Utility - Power

Main unit: AC 100 - 240 V / 850 W, 50 / 60 Hz (including vacuum pump)

Environmental conditions

Temperature: 10 - 30°C

Humidity: 20 - 80% RH

CE certified

yes

www.microtrac.com/belsorp-max-g