



HIGH PRESSURE GAS ADSORPTION INSTRUMENT

BELSORP HP

The BELSORP HP analyzer is used for high-pressure adsorption measurement.

The importance of high-pressure adsorption measurement is growing in various application fields like hydrogen or methane storage, pressure swing adsorption (PSA), CO₂ absorption into hypolymer, and many more. However, the instruments for measuring high-pressure gas sorption are usually large-sized, expensive and difficult to use.

The BELSORP HP is a benchtop instrument for high-pressure adsorption measurement. It is compact, reasonably priced and easy to operate. Our profound expertise in adsorption science is reflected in the technology implemented in this analyzer. The BELSORP HP is used in research and industrial applications alike.

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TECHNICAL DATA

Measuring principle	Volumetric gas adsorption method
Adsorptive	N ₂ , Ar, O ₂ , CO, H ₂ , CO ₂ , CH ₄ , and other non-corrosive gas (OP:NH ₃)
Analysis / pretreatment port	1
Pressure transducer	Ads isotherm measurements can be achieved by F.S 0.133 MPa and F.S. 13.5 MPa pressure transducers from low to high pressure region.
Measurement pressure range	90% of high pressure transducer F.S.
Temperature range	Measurement temp: Water bath + Chiller:-10-70°C (non-freezing liquid for settings below 10°C) Dewar vessel with LN ₂ or LAr level controller: 77K, 87K (OP) Pretreatment temp: 50-400°C (OP:50-800°C)
Air circulation bath	15-35°C
Vacuum pump	Rotary pump Ultimate vacuum:<1Pa(7×10 ⁻³ Torr)
Analysis software BELMaster™ 7	Ad-/desorption isotherm, BET, Langmuir, Horvath-Kawazoe, Saito-Foly, micropore volume by DA, isosteric heat of adsorption, (Clausius-Clapeyron equation), (Option: adsorption rate analysis software)

Dimensions (W x H x D)	600 x 910 x 720 mm
Weight	90 kg
Utility - Gas	He: 0.2MPa (G) Ads gas: Maximum pressure transducer F.S x1.2+0.1MPa (G) Compressed air: pres. 0.5~ 0.6 MPa (G)
Utility - Joint	1/8" Swagelok connection
Utility - Vent	12mm Ø hose connection (main body, R.P)
Utility - Power	AC 100 ~ 120V/200 ~ 240 V, 800 W (excluding vacuum pump) , 50 / 60 Hz
CE certified	no
Recommended Monitor	Full HD monitors

PC, R.P. and chiller are required to operate this product. Please contact us for more information.

This product is available with a manufacturer's declaration.

www.microtrac.com/belsorp-hp