



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), CO<sub>2</sub> 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

<b>Measuring principle</b>	Volumetric gas adsorption method
<b>Adsorptive</b>	N <sub>2</sub> , Ar, O <sub>2</sub> , CO, H <sub>2</sub> , CO <sub>2</sub> , CH <sub>4</sub> , and other non-corrosive gas (OP:NH <sub>3</sub> )
<b>Analysis / pretreatment port</b>	1
<b>Pressure transducer</b>	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.
<b>Measurement pressure range</b>	90% of high pressure transducer F.S.
<b>Temperature range</b>	Measurement temp: Water bath + Chiller:-10-70°C (non-freezing liquid for settings below 10°C) Dewar vessel with LN <sub>2</sub> or LAr level controller: 77K, 87K (OP) Pretreatment temp: 50-400°C (OP:50-800°C)
<b>Air circulation bath</b>	15-35°C
<b>Vacuum pump</b>	Rotary pump Ultimate vacuum:<1Pa(7×10 <sup>-3</sup> Torr)
<b>Analysis software BELMaster™ 7</b>	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)

<b>Dimensions (W x H x D)</b>	600 x 910 x 720 mm
<b>Weight</b>	90 kg
<b>Utility - Gas</b>	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)
<b>Utility - Joint</b>	1/8" Swagelok connection
<b>Utility - Vent</b>	12mm Ø hose connection (main body, R.P)
<b>Utility - Power</b>	AC 100 ~ 120V/200 ~ 240 V, 800 W (excluding vacuum pump) , 50 / 60 Hz
<b>CE certified</b>	no
<b>Recommended Monitor</b>	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](http://www.microtrac.com/belsorp-hp)