

# Model BL765 Humidity Generator



The BL765 is a bench-top humidity generator for calibrating a large workload of probes in the laboratory or on-site in the field. The system comprises a humidity and temperature controlled chamber that can house up to six humidity sensors. The BL765 works by time-proportioning the flows of dry and saturated air according to the pre-selected relative humidity value. The chamber temperature is controlled by a four-zone Peltier heat pump arrangement for maximum stability and minimum temperature gradient. The saturator assembly can be filled easily with the distilled water reservoir at the front of the unit and the easily accessible desiccant can be re-charged by heating when required.

## FEATURES

- 5-95%RH humidity, 5-50°C temperature
- Better than  $\pm 1.0\%$ RH and  $0.1^\circ\text{C}$  uncertainty for dependable humidity probe calibration
- Rapid humidity and temperature stabilization time, much faster than traditional two-pressure generator.
- 2.4L chamber, 1.6L effective work volume
- Program 6 multi-points calibration
- Touch screen operation
- Compact size and lightweight
- Modular design, maintenance free

## APPLICATION

- Test and calibration laboratory
- Pharmaceutical and biomedicine
- Automobile manufacturing industry
- Food industry
- Dust free workshop

## SPECIFICATION

- Control sensor: HygroClip2-S, PT100 1/3 DIN
- Humidity measurement range: 5...95%RH @ $23\pm 2^\circ\text{C}$
- Temperature measurement range: 5...50°C (Environment temperature is not more than  $23\pm 1^\circ\text{C}$  while chamber temperature is set at  $5^\circ\text{C}$ )
- Humidity stability:  $< \pm 0.1\%$ RH
- Temperature stability:  $< \pm 0.02^\circ\text{C}$
- Humidity ramp/soak changes:  $< 10$  minutes (5...95%RH)
- Temperature changes:  $< 10$  minutes ( $20$  to  $50^\circ\text{C}$ ),  $< 20$  minutes ( $20$  to  $5^\circ\text{C}$ )
- Typical calibration uncertainty ( $k=2$ ):  $\pm 1.0\%$ RH @  $20^\circ\text{C}$ ,  $\pm 0.10^\circ\text{C}$  @ 5...95%RH
- Uniformity:  $\pm 0.3\%$ RH @  $23^\circ\text{C}$ ,  $\pm 0.10^\circ\text{C}$  @  $23^\circ\text{C}$
- Resolution:  $\pm 0.1\%$ RH,  $\pm 0.1^\circ\text{C}$
- Ports on the door: 1x $\Phi 12$ , 7x $\Phi 15$ , 2x $\Phi 30$ , 2x $\Phi 50$ mm
- Maximum Calibration probes: 8 pcs
- Water level observation: Front panel window
- Request water: 80ml – 120ml distilled water
- Gas connection: Input and output on rear side
- Desiccant type: Molecular Sieve (screen shows lack)
- Chamber volume: 2.4L, effective 1.6L (15cm x  $\Phi 11$ cm)
- Communication port: RS485
- Power supply: 220VAC 60Hz 2A (110V is optional)
- Dimension: 475mm L x 360mm W x 240mm D
- Weight: 15kg
- Operation environment:  $10^\circ\text{C}$  to  $35^\circ\text{C}$ ,  $< 80\%$ RH

## SCOPE OF DELIVERY

- BL765 Humidity generator, include square door with 4 ports (1x $\Phi 12$ , 7x $\Phi 15$ , 2x $\Phi 30$ , 2x $\Phi 50$ mm), desiccant cartridge, fill syringe, power cord, user manual, carrying case

## OPTIONAL ACCESSORIES AND SERVICES

- ISO17025 accredited calibration certificate, P/N:9000-765
- Desiccant cartridge with desiccant material, P/N:765-DC
- Transparent window for transmitter w/o probe, P/N:765-TW
- Door with custom ports from  $\Phi 6$  to  $\Phi 50$ mm, P/N:765-CP

## HOW TO ORDER

- BL765-220V
- BL765-110V