

BetaGauge 330 AVC

Aeronautical Test Unit

The **BetaGauge 330 AVC** is a unique and revolutionary device for testing and verifying aeronautical instrumentation with hand held ease and portability. The built-in battery operated pressure source provides self contained operation for use in all field operating conditions.

Functions include:

- Airspeed indicator verification
- Altitude indicator verification
- Rate of climb/vertical speed indication verification
- True barometric pressure indication
- Leak rate testing
- Hydraulic pressure testing (with optional external pressure sensors)

Safety of aeronautical instrumentation is key in the design of the 330 AVC. A special pressure release valve prevents damage to aircraft systems due to a rapid pressure drop in the test system.

The BetaGauge 330 AVC is powered by commonly available AA Alkaline batteries or by optional rechargeable Nickel Metal Hydride battery packs.

The large backlit graphical display means it can be used in poor lighting as well as full sunlight.

The BetaGauge 330 AVC is lightweight (1.2 kg) and compact (20 cm x 10 cm x 6 cm) making it easy to carry, store and use.

The pressure measurement function is highly accurate with overall performance of $\pm 0.025\%$ of range over a wide operating temperature.



SPECIFICATIONS

Parameter	Measurement Range	Controllable Range	Accuracy
Barometric altitude (geopotential) Feet (Meters)	-1600 to 36000 ft (-500 to 12000 m)	below 3200 ft (1000 m) 3200 ft (1000 m) 10000 ft (3000 m) 23000 ft (7000 m)	±8 ft (2.5 m) ±11 ft (3.5 m) ±15 ft (4.5 m) ±20 ft (6 m)
Indicated airspeed (IAS) Knot (Km/h)	10 to 490 kts (20 to 900 km/h)	20 kts (40 km/h) 55 kts (100km/h) 135 kts (250 km/h) 200 kts (400 km/h)	±5.4 kts (10 km/h) ±2.7 kts (5 km/h) ±2.1 kts (4 km/h) ±1.6 kts (3 km/h)
Vertical speed (Rate of climb or descent) ft/minute (m/sec)	+/-12000 ft/min (+/-60 m/sec)		±2%
Absolute pressure hPa	410 to 1013 hPa		±0.6 hPa
Gauge pressure hPa	0 to 98 hPa		±0.8 hPa

- 1) Minimum "System Under Test" volume 900mL (included). Maximum "System Under Test" volume – 5 liters.
- 2) Indicated airspeed (IAS) – corrected to (P=1013hPa T = 15C)
- 3) Positive Vertical speed (Rate of clime) controlled by software and can be set from 1500 ft/minute up to 6000 feet/minute. Actual Maximum rate might be limited by Volume.
- 4) Negative Vertical speed (Rate of descent) manually controlled by smooth release-to-atmosphere-valve opening
- 5) Altitude units: meters, feet.
Airspeed units: km/h, knot .
Vertical Airspeed units: meters/second, feet/minute.
- 6) Leakage measurement mast can be shown as any Pressure unit, Altitude, Airspeed or Rate of clime unit per 60 seconds.
- 7) Switch test works for Pressure, Altitude and Airspeed measurements.

