

Orbisphere 6110 Total Package Analyser



Applications

- Beverage

Total Package Analyser for Oxygen & Carbon Dioxide measurements

The Orbisphere 6110 boasts the latest technology in final package analysis for measurements of Total Package Oxygen, Headspace Oxygen and Dissolved Oxygen; as well as dissolved Carbon Dioxide and Headspace Volume. It has been designed to meet the practical needs of both lab and at-line environments. The high-quality touch-screen facilitates measurement customisation on all types and sizes of cans or bottles, as well as providing critical information on the health of the instrument. Utilisation of this instrument has been proven to provide critical quality information of the final package, increasing process control and beverage quality.

Fast, effective operation

The 6110 delivers repeatable analysis with minimal operator intervention. The package positioning aid with laser crosshairs confirms optimal placement and the intuitive touch-screen interface ensures product sampling is completed quickly, easily, and consistently for both line operators and lab personnel. There is no sample preparation necessary for total package and head space oxygen analysis.

Reliable and flexible

The 6110 Total Package Analyser operates on all types of cans and bottles due to its unique gas extraction and piercing system, resulting in reliable analysis with no container leakages. The CO₂ analysis measurement provides accurate results at any temperature, without having to warm the sample. The 6110 can also compensate CO₂ results for any package Nitrogen content – a perfect choice for analysis directly at the filler.

Gas phase measurement

The Hach Orbisphere 6110 analyses beverages without removing any product from its container. The measurement takes place in the gas phase, so there is no direct liquid contact with the 6110's sensing technology or sampling path. This reduces maintenance by eliminating hassles such as bleaching tubing and replacing valves to prevent fouling.

Maximise the uptime of your 6110 Total Package Analyser

Our expert service team works in partnership with you to provide professional start-up and commissioning and regular maintenance for your 6110 Total Package Analyser to ensure it is in the optimal condition. Please speak with your local Hach representative for service offerings in your region.

Technical Data*

Measuring range	O ₂ : 1 ppb - 12 ppm CO ₂ : 0.75 - 5 v/v or 1.5 - 10 g/kg	Package Type	Closure types: metallic, PET Package height: min. 90 mm (3.54 in.) max. 340 mm (13.39 in.) Package volume: min. 150 mL
Repeatability (r95)	TPO: ±5 µg/L / ±10%, whichever is greater CO ₂ : ±0.05 v/v or 0.10 g/kg ±2 %, whichever is greater, measured on equilibrated packages at 10 - 25 °C	Enclosure waterproof rating	IP20
Typical analysis time	Approximately 4 minutes	Compliance certifications	European directives: Low voltage 2006/95/EC; EMC 2004/108/EC Electromagnetic compatibility standards: EN61326 Safety standard: IEC/UL/CSA 61010-1 Safety of Laser products: IEC/UL/CSA 60825-1
Units	O ₂ Concentration: ppb, ppm CO ₂ Concentration: v/v, g/kg, g/L, %W Total Package Quantities: mg, mL, mg/L, mL/L, µg/L Pressure: bar, mbar, psi Temperature: °F, °C, K	Display type	Digital TFT VGA (640 x 480) colour touch screen 1x Ethernet, 1x USB-A
Operating conditions	Package temperature: -2 - 30 °C (28 - 86 °F) Package pressure: 1.4 - 6.8 bar (20 - 73 psi) Ambient temperature: 0 - 40 °C (32 - 104 °F)	Communication capabilities	
Laser Class	A Class 1 LASER is installed in this instrument. Exposure to the beam of a Class 1 LASER will not result in eye injury. Intrabeam viewing of Class 1 laser products which emit visible radiant energy may still produce dazzling visual effects, particularly in low ambient light.	Dimensions (H x W x D)	942 mm x 540 mm x 537 mm
		Weight	55 kg
		Installation requirement	Power requirements: 100/240 VAC, 50/60 Hz Purge gas: CO ₂ with purity >99.9% at 6 to 7 bar abs (87 to 102 psi)

*Subject to change without notice.

Order Information

DG6110-SYS Hach Orbisphere 6110 Total Package Analyser
Includes all consumables for 1 years' operation.*

*Depending on usage.

Accessories

32301.A	Electrochemical sensor cleaning and regeneration unit, 115 VAC
32301.B	Electrochemical sensor cleaning and regeneration unit, 230 VAC
32816	Sample shaker
DG33526	OPC software kit
33001	Power cable with EU plug

Consumables

DG33520	One year consumables kit (incl. 33117, DG33496, DG33491, 33156, 2956A-AT)
33117	Rubber seal, for piercing tip

DG33496	Piercing tip for metal closure
DG33497	Piercing tip for plastic closure
DG33491	Kit of PTFE filters
33156	Antifoam recharge bottle, 1 litre
2956A-AT	Recharge cartridges for sensor

Validation Tools

DG33373	Air injection starting kit
DG33374	Air injection recharge kit
DG33254	Reference HS volume 16 mL
DG33255	Reference HS volume 25 mL

Some of the items are only compatible with the latest 6110
version (V3). Ask your local Hach team for parts compatible
with previous versions of the 6110.