PRODUCT INFORMATION



Total alkalinity and dissolved inorganic carbon in seawater (VINDTA 3C):



VINDTA 3C (VINDTA # 007)

The VINDTA 3C (Versatile INstrument for the Determination of Total inorganic carbon and titration Alkalinity) combines the proven VINDTA alkalinity titration concept with a simplified extraction unit for coulometric dissolved inorganic carbon (DIC) measurement.

The alkalinity part of the VINDTA 3C is nearly identical to the <u>VINDTA 3S</u> system; an additional part for the extraction of CO_2 from seawater for coulometric titration has been added to allow for determination of dissolved inorganic carbon from the same sample simultaneously (the DIC-only system is available as <u>VINDTA 3D</u>).

The sample transport is performed with peristaltic pumps and the acid addition is done using a membrane pump; therefore no pressurizing system is required (in contrast to the SOMMA system) and only one gas supply (nitrogen or dry and CO_2 -free air) is necessary. As option, a Peltier cooler system for the condenser (this saves one circulation bath) is available.

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features:

- determine alkalinity and dissolved inorganic from the same sample simultaneously
- easily transportable and sea-going
- only one gas (carrier gas) required
- precision typically ± 1 μmol/kg (AT and/or DIC; open ocean water)
- simplified operation for DIC compared to the SOMMA
- user friendly software interface using LabVIEW™
- optional control PC (Shuttle-PC) tested with the hardware and with all software and drivers installed

LabVIEW[™] is a trade mark of National Instruments Inc.

Additional hardware required or recommended: UIC coulometer model 5011, 5012, or 5014 (with 5011 emulator option) METROHM Titrino (719SET or similar) with stirrer 728 and 5 mL burette unit Metrohm reference electrode # 60729.100 Thermo Orion ROSS electrode #8101BN circulation bath for temperature control (20 or 25°C) of the system equilibration of sample bottles second circulation bath for the condenser (~ 2°C; not required with Peltier option) carrier gas supply (nitrogen or dry and CO₂-free air)