



MODELS 108 & 308



The Model 108 & 308 Oceanographic Current Meters are well proven tools for the collection of single point current (and other) data in either real time or autonomous applications. Titanium construction gives excellent durability, whilst low power consumption allows for extended deployment periods. A variety of communication options allow real time operation over cable lengths up to 3000m, and data may be viewed on either a dedicated display unit, or with Valeport's own easy to use DataLog software.

Sensors

Speed

Type: Impeller [0.27m pitch x 125mm Ø]
 Range: 0.03 to 5.0 m/s
 Accuracy: <0.15m/s, ±0.004m/s
 >0.15m/s, ±1.5% reading
 Resolution: 0.001m/s

Direction

Type: Flux gate compass [± 25° gimbal]
 Range: 0 - 360°
 Accuracy: ± 0.25°
 Resolution: 0.25°

Temperature

Type: PRT
 Range: -5 to 35°C
 Accuracy: ± 0.02°C
 Resolution: 0.002°C

Conductivity

Type: Inductive coils
 Range: 0.1 to 60mS/cm
 Accuracy: ± 0.05 ms/cm
 Resolution: 0.003mS/cm

Pressure

Type: Strain gauge
 Range: 100, 200, 500 or 1000 dBar
 Accuracy: ± 0.1% FS
 Resolution: 0.005% FS

Derived parameters

Salinity, Speed of Sound and Density are derived from the Conductivity, Temperature and Pressure readings using industry standard equations

Data Acquisition

The vector average is based on a 5 second period during which impeller counts are measured and a single compass reading is made, and the vector average is built up over the averaging period set. Averaging period is any multiple of 5 seconds, up to a maximum of 30 minutes. For the optional parameters, the sample is taken at the end of each sample period, and averaged over the averaging period. Real time display and memory (308 only) are updated at the end of each averaging period.

Communications

RS232: Standard, up to 100m cable, direct to PC
 Digital: Standard fit, used by 8008 CDU, this is a 2 wire method suitable for real time communications over cable lengths up to 3000m (requires adaptor for PC comms)
 RS485: Option, suitable for communications over cable lengths up to 1500m (factory fit, disables RS232).

Software

Supplied with Valeport's own Windows based DataLog software, which allows the user to set up instrument sampling regime, extract data (Model 308 only), and display data.

Control Display Unit

Both meters can be used in real time with Valeport's Model 8008 Control Display Unit (CDU). This features an LCD graphics display of all parameters and allows full sampling set up of the instrument. The 8008 CDU also has its own internal memory, which can be downloaded to PC in spreadsheet compatible format.

Power: 8 x 1.5v "C" cells (also powers instrument)
 Size: 244 x 193 x 94mm, 2kg
 Protection: IP67 (10secs @ 0.3m).

Memory

The Model 308 is fitted with 512kb memory, which will hold over 125,000 speed & direction records, or over 50,000 records if CTD is also fitted. An optional 1Mb memory is also available.

Power

Internal: (308 only) 7 x 1.5v "C" cells, which will last for over 1 year at 10 minute recording intervals
 External: 10 - 18vDC, <1W. May be taken from 8008 CDU.

Physical

Depth rating: 2000m
 Materials: Titanium & Acetal
 Size: 76mmØ x 880mm (108), 76mm x 1080mm (308)
 Weight: 11kg (108), 13.5kg (308)
 Suspension: 100kg (108), 1000kg (308)
 Shipping: (108) 95 x 43 x 48cm (inc 50m cable + CDU), 40kg
 (308) 116 x 32 x 28cm (instrument only), 30kg

Ordering

0108001 Model 108 MkIII Current Meter with Control display unit, 50m cable, 3m deck lead, manual and transit case.
 0108002 Model 108 MkIII Current Meter with Control display unit, 100m cable, 3m deck lead, manual and transit case.
 0108003 Model 108 MkIII Current Meter with Control display unit, 200m cable, 3m deck lead, manual and transit case.
 0308002 Model 308 Current Meter, with 3m "Y" lead (fish to PC and power supply), Datalog software, manual and transit case.
 0300022 1Mbyte memory option (Model 308)
 0300003 Pressure -specify range (100, 200, 500 or 1000 decibar)
 0300004 Temperature - PRT
 0300006 Conductivity

As part of our policy of continuing development, we reserve the right to alter at any time, without notice, all specifications, designs, prices and conditions of supply of all equipment.

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