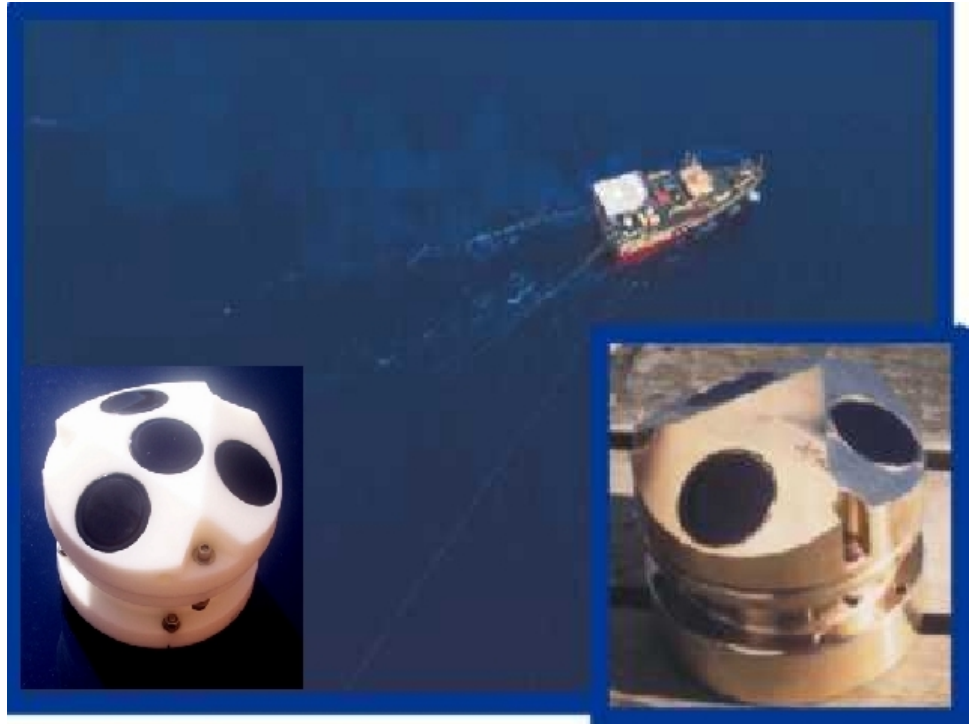


# Nortek Vessel-Mounted CP

A new level of simplicity, accuracy and performance



*Delrin housing is used for temporary mounting. The same sensor can be deployed on the seafloor for stand-alone operation.*

*Bronze housing used for fixed mounted systems.*

Nortek's Vessel-Mounted Current Profiler (VM-CP) makes it easier and less expensive for you to get the information you need about ocean currents. Your operations will go faster and you will make operational decisions with better confidence. It is easy to use, trouble-free, informative and accurate.

The VM-CP works by measuring currents below the hull, relative to the ship. It determines the vessel motion using "bottom tracking" or the ship's navigation systems, removes this motion from the current measurements, and obtains the current velocity relative to the earth coordinate system. Modern navigation systems are accurate enough to make this possible, and modern NMEA interface standards make it easy.

Nortek's VM-CP gives you a new level of simplicity, accuracy and performance. Because your system alternates between bottom track and GPS/Gyro correction, the profiling range is fixed and the system works equally well in deep and shallow water. Further, calibration of the gyro input has never been easier. Make two 5-minute runs and press one button. The VM-CP software does all the rest for you.

## Features

The combination of a well-thought out design and user-friendly, yet easy to use software gives the VM-CP several unique advantages:

- ✓ It shows you real time surface patterns where you survey
- ✓ It works in any water depth, and is insensitive to bottom conditions
- ✓ Simple integration to navigation systems
- ✓ Simple calibration procedure
- ✓ Can be used as high-quality speed log

## Software

The SurveyP software runs under any WIN32 operating system and collects data from the CP, the DGPS receiver, and the ship's gyro. Online data are shown as rose vector plots, vertical profiles of speed and direction, and a stick plot that is overlaid a track plot.



[www.nortek-as.com](http://www.nortek-as.com)

## System

Acoustic frequency	0.6 MHz	1.0 MHz
Acoustic beams	3, slanted at 25°	3, slanted at 25°
Maximum ship speed	20 knots	20 knots

## Current profile

Maximum range	35-65m	15-25m
Depth cell size	1-4m	0.4-4m
Minimum distance to first cell	2m	0.6m
Maximum output rate	1 Hz	1 Hz
Internal sampling rate	3 Hz	8 Hz
Number of cells	Typical 20-40, max 128	Typical 20-40, max. 128

## Velocity measurements

Velocity range	±10m/s horizontal, ±5m/s along beam (inquire for higher ranges)
Accuracy	1% of measured value ±5cm/s
Resolution	0.1cm/s

## Physical

Transducer material	Bronze or Plastic/Titanium
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## Power

AC Input	110/220 VAC, 50/60 Hz
DC Input	10-16 V
Operating power consumption	1-2 W

## Cable & Connectors

Bulkhead	Impulse
Cable	Impulse
Cable length	10, 30 or 60m (30m is standard)

## Environmental

Operating temperature	0-45°C
Storage temperature	+10-50°C

## Computer (optional)

Type	19" rack-mounted industrial Pentium type PC with 17" monitor and keyboard.
Data storage	2GB HDD, CD-ROM
Interface	Intelligent 8-port serial RS-232 or RS-422)

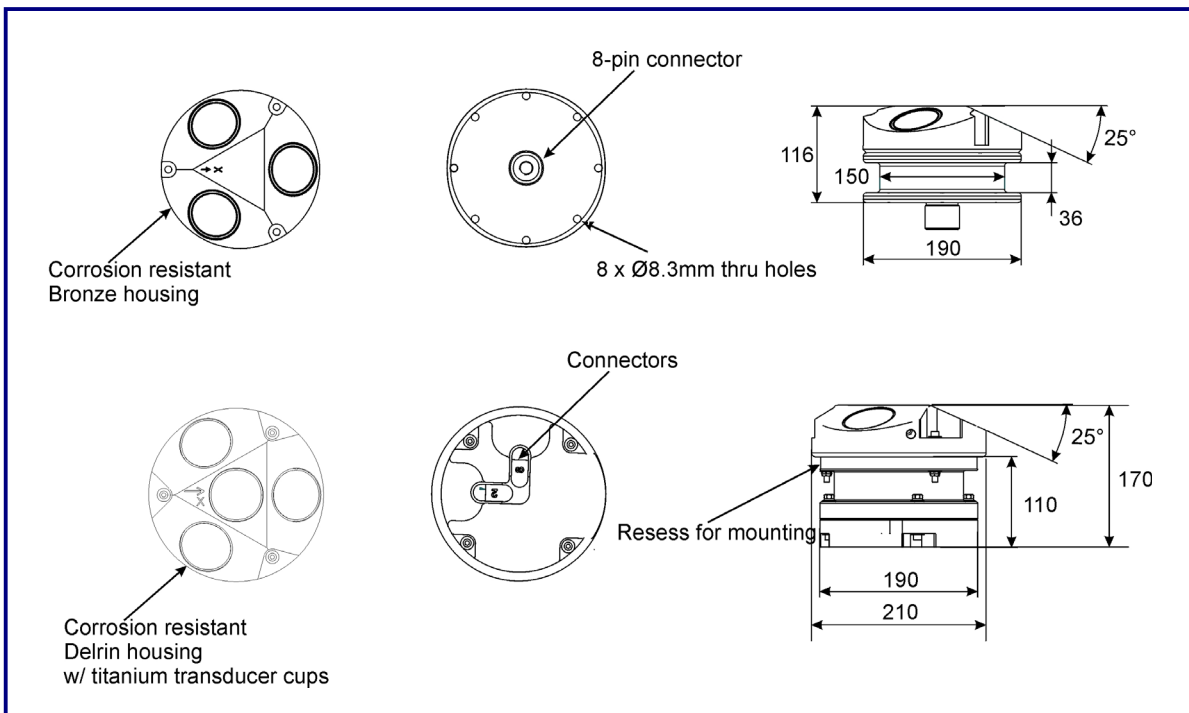
## Interfaces

GPS	Sercel NR 203 NMEA 0183 (GP) Trimble 4000 position (ASCII) NMEA 0183 GLL/VTG NMEA 0183 GGA/VTG NMEA 0183 RMC Geco NYMEA 0183 PRTNS
Gyro	NMEA0183 HDT NMEA0183 HDM
Heave, pitch, roll	TSS 320B Scatpath 200 NMEA0183 PRDID
Anemometer	NMEA183 MWV Gill ASCII Mode 2
Custom	Navitacker
Serial output	NortekNDP standard binary NortekNDP ASCII NortekNDP ASCII with STX/ETX char. NortekNDP extended ASCII w. STX/ETX char* NMEA0183 VDVHW (speed log)

\* Spectra navigations systems include a driver to read the Nortek NDP extended ASCII serial output. Nortek will write custom interfaces for your devices. For simple ASCII data formats such as NMEA, Nortek will normally do this without extra charge.

## Software

Operating system	NT 4.0, WIN2000 WIN XP
Online operation	Online configuration data recording to harddisk, online graphical data display, auto-calibration, data output to external devices.



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