



**CONTROS**  
Systems & Solutions GmbH

# HydroC™ / CO<sub>2</sub> FT

## Spec Sheet



<b>Applications</b>	Flow through/ Underway measurement of dissolved CO <sub>2</sub> motivated by: Air- sea gas exchange; Ocean Acidification; Limnology; Climate Studies; Agriculture/ Fish Farming; Fresh water control
<b>Detector</b>	High-precision optical analysing NDIR system •Maintenance free
<b>Principle</b>	Water is pumped through the membrane head of the flow through sensor. Dissolved CO <sub>2</sub> molecules diffuse through a silicone membrane into the patented detector chamber, where their number is determined by means of IR absorption spectrometry. Concentration dependent IR light intensities are converted into output signals.
<b>Dimensions/ Weight</b>	325 x 240 x 126 mm (L x W x H)/ 4,7 kg
<b>Flow rate</b>	2 to 15 l/min (Recommended 5 l/min)
<b>Temperature range</b>	+3... +30°C (water temperature)
<b>Measuring range</b>	0... 3000 ppm (other ranges available) • Standard calibration is 200... 1000ppm • Units selectable: µatm, ppm, etc.
<b>Equilibration time</b>	first signal after 5s, T63 < 2min
<b>Resolution</b>	< 1 ppm
<b>Accuracy</b>	± 1% of upper range value (as the total sum of all errors)
<b>Calibration</b>	Calibration unit is ppm • Partial pressure in µatm is derived (internal sensors for pressure, temperature and humidity) • Recalibration recommended every 12 months
<b>Drift correction / Features</b>	Dual channel NDIR unit • Auto zeroing on programmed intervals or initiated manually with software • Included zeroing cartridge lasts for approx. 1 year
<b>Connector</b>	Hirschmann-plug CA6LD • Others on request
<b>Power supply/ Consumption</b>	Typ. 12 VDC (11 - 24 VDC) •warm- up phase 8- 30min/ Appr. 400mA (700mA during warm- up)
<b>Data Interface</b>	RS-232C • Data format ASCII NMEA-0183
<b>Software</b>	Windows® Software DETECT™ included (real time data visualization, setting of sensor parameters, download data from internal data logger) • Adaption to user-software
<b>Optional</b>	Analogue Output: 0 – 5/10 V • Range / Full-scale can be user-configured • RS-485 • Data logger

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