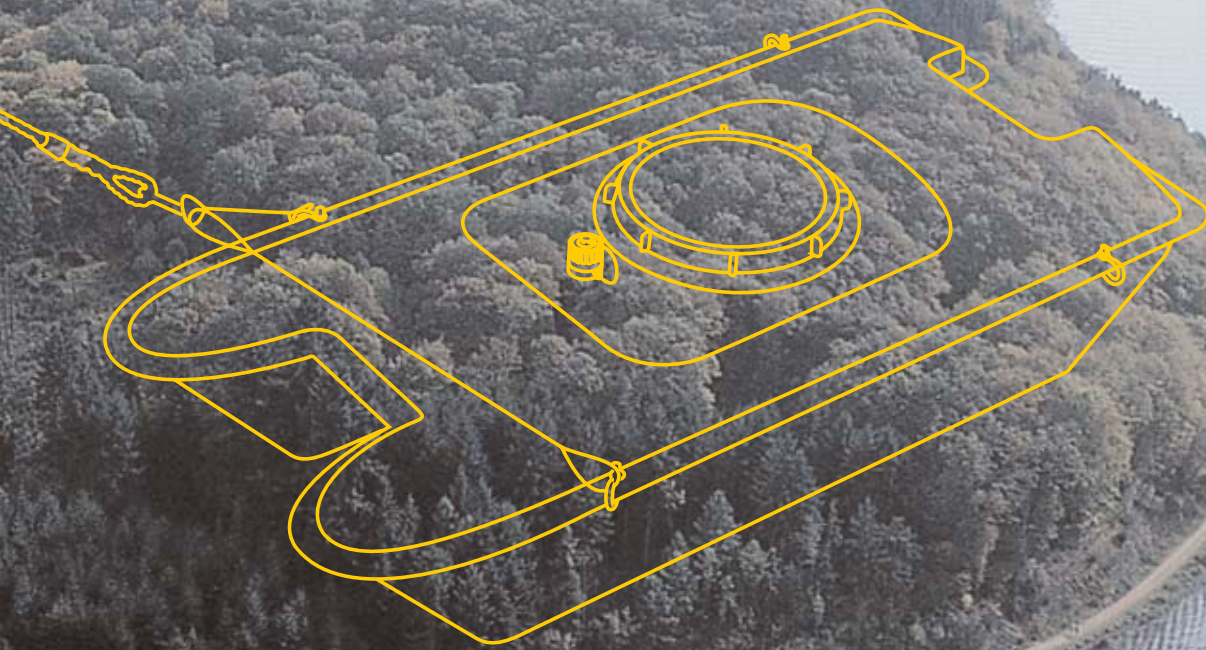




OTT Qliner

Mobile River Discharge Measurement System



OTT Qliner – a fast and easy way to measure discharge

The Qliner measures flow (discharge) in rivers and channels. It gives you accurate and detailed information about the river flow and you get the results quickly and safely. Although ideal for rivers 1 - 30 m wide and 0.3 - 5 m deep, it is well suited for larger rivers as well. The Qliner uses Doppler technology to measure the vertical velocity profile and the depth in a user-selectable number of sections across the river.

The on-line software estimates the discharge by combining the velocity and depth information and you have the final result by the time you have completed the data collection. The Qliner system consists of a Doppler current profiler, a boat to hold the current profiler and the BlueTooth transmitter, a watertight PDA with BlueTooth and the necessary „Qliner for PocketPC“ software as well as the PC-software „Qliner review.exe“.



The decisive advantages

No moving parts that can be blocked or sensitive parts that are easily damaged

No operating problems in case of moving bottom

Accurate, yet simple to operate and understand

Provides an accurate bottom profile

Great for narrow areas with steep sidewalls

Gets the man out of the river

Fully enclosed system

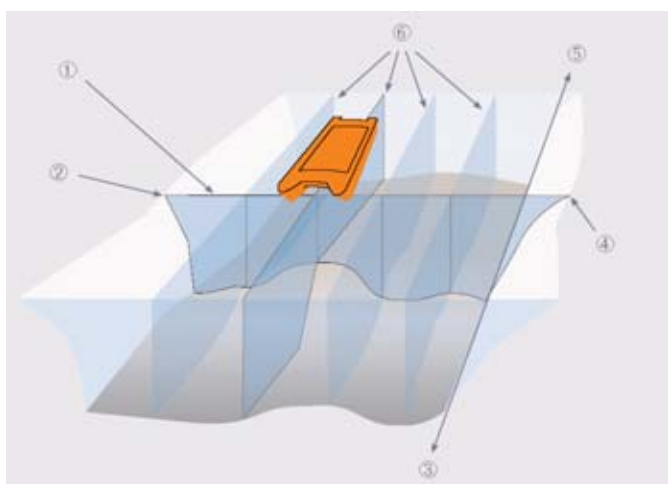
An easy to use discharge measuring system

River discharge (Q) within four steps:

1. Put the parameters of the river into the software on the PDA.
2. Deploy the Qliner and position it on its 1st vertical.
3. Move to the next vertical and repeat this until the last measurement vertical (The method allows tracking of historical data like with current meters).
4. Tap done on the PDA screen and get the river discharge!

No GPS or bottom-track needed:

- Positioning on the verticals takes place with a measurement rope.
- The bottom profile is created from the depth of the measured verticals.



Legend

- 1) River cross section
- 2) First EOW (Edge Of Water)
- 3) Upstream
- 4) Last EOW (Edge Of Water)
- 5) Downstream
- 6) Verticals

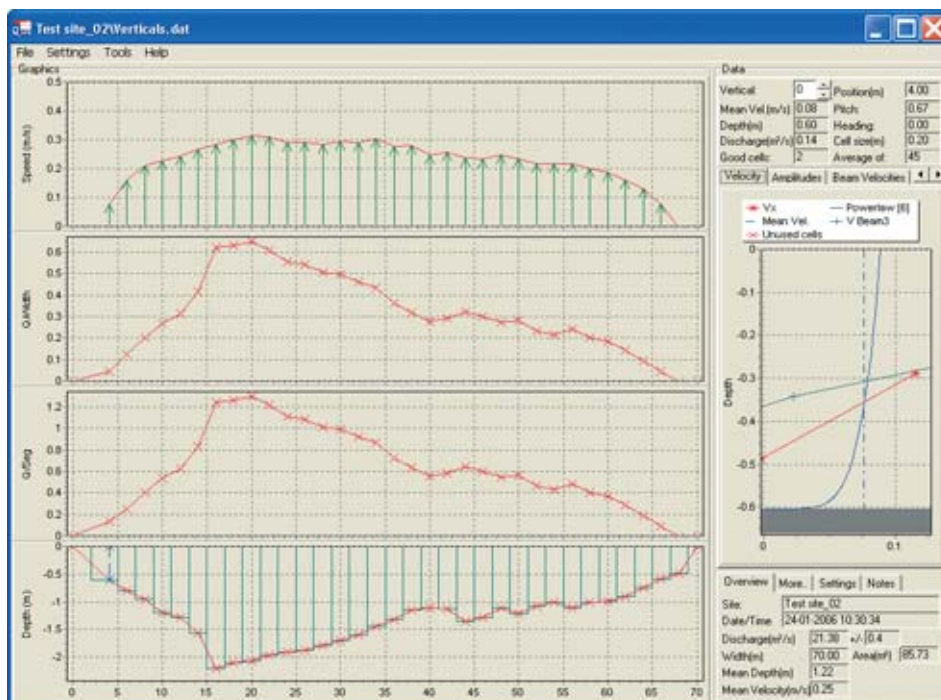
The Qliner software

Pocket PC:

The software included monitors and controls the measurement, makes the calculations and exports summary data to a desktop computer. The software runs on the Windows Pocket PC platform.

Windows® PC:

After transferring the data to the PC, the software monitors the measured data in an efficient way. Additionally there are several export functions available (e. g. XML).



Technical data

Water Velocity Measurement

Acoustic frequency	1.0 MHz	2.0 MHz
Maximum range (water depth)*	20 m	10 m
Cell size	0.3 ... 4 m	0.1 ... 2 m
Minimum blanking	0.20 m	0.05 m
Maximum number of cells	50	
Velocity range	± 10 m/s	
Accuracy	1 % of measured value ± 0.5 cm/s	
Max. sampling rate	1 Hz	

Temperature sensor

Range	-4 ... +30 °C
Accuracy/Resolution	0.1 °C / 0.01 °C

Software „Qliner for PocketPC“

Mobile device	Pocket PC / Windows Mobile
Functions	Deployment planning, data retrieval, ASCII conversion, online data collection and graphical display Based on Windows® PC Data Review, Storage, Export

Software „Qliner Review“ for PC

Radio Connection

Frequency	2.4 GHz
Type	Blue Tooth Class 1
Nominal range	100 m

Hand-held computer

Type	Hand-held in Otterbox casing or TDS Recon (optional)
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Batteries

Type/capacity	Rechargeable battery pack 10 AA NiMH 2300 mAh
New battery voltage	12 VDC
Duration	1 day in the field

Boat

Material	Fibre glass
Size	940 x 470 x 223 [mm]
Weight	11 kg (including sensor)

Environmental

Operating temperature	-5 ... +35 °C
Storage temperature	-20 ... +45 °C
Shock and vibration	IEC 721-3-2
Protection	IP 68

* depends on environmental conditions

OTT – Your partner for:

- Water level measurement in ground and surface water
- Discharge measurement
- Precipitation measurement
- Water quality measurement
- Data management and communication
- HydroService: consulting, training, installation and maintenance

