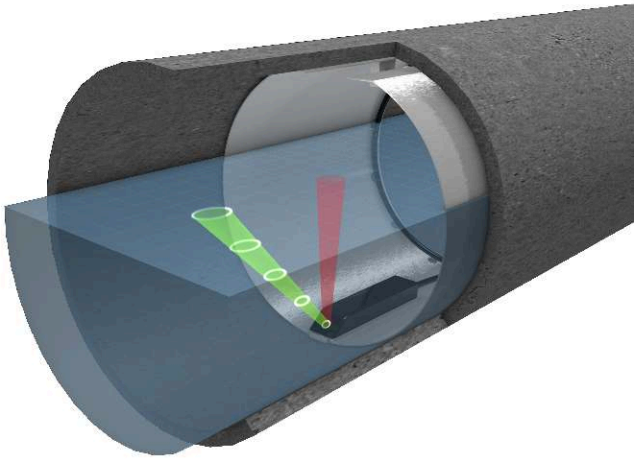
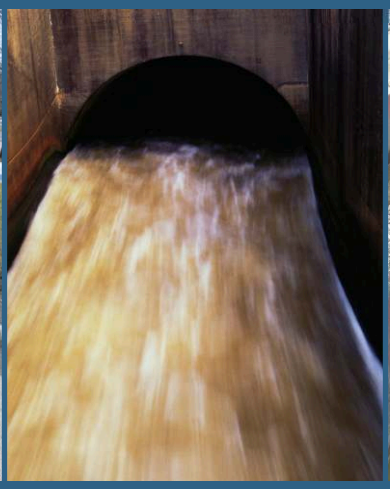
WE **KNOW** FLOW



QZV
ISO 9001
CERTIFIED

HydroVision applies a quality management system according to DIN EN ISO 9001:2008



SYSTEM **Q-Eye M II**

Pulse Spectral Correlation Technology

Complete Q-Eye Capabilities

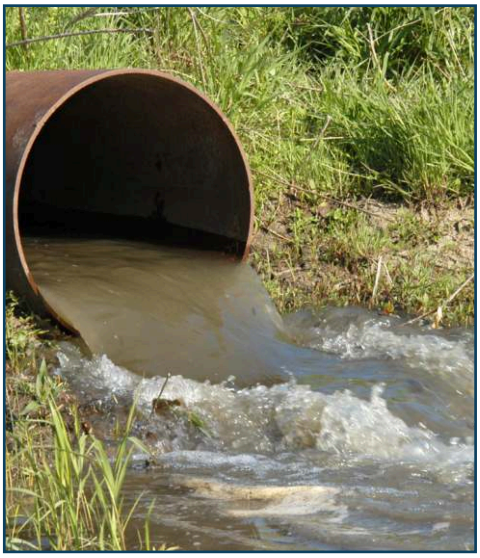
Flow Depth and Velocity Measurement
Sampler Triggering by Flow
Computer Data Analysis and Reporting
Modem Telemetry

HydroVision
Acoustic Flow Meters

Acoustic Pulse Spectral Correlation

Q-Eye MII shows its advantages in mobile applications. The long lifetime of approx. 90 days with a measuring interval of 5 minutes, as well as the small and robust housing make it the perfect tool for temporary operations. In addition to water level and flow, the signal quality, battery voltage and the calculated flow are also stored inside the data logger. A pulse output provides the necessary signal to a sampler.

With the optional connectable pressure sensor, the water level can be collected redundantly and the measuring range can be extended beyond 3,5 m (11.5 ft.).



Q-Eye Applications

- Sewer system evaluation surveys
- Infiltration and inflow studies
- Master plan studies
- Industrial surveillance programs
- CSO and stormwater monitoring
- User discharge billing
- System capacity planning and control
- Industrial discharge and process control

Scissors Ring

Q-Eye MII

Q-Eye MII GSM/GPRS

Q-Eye Features

- State-of-the-art Pulse Doppler sensor
- Reads mean velocity directly from the flow profile using up to 22 scan cells.
- High accuracy water depth sensors, pressure and ultrasonic
- 2 MB solid-state memory, slate or wrap-around
- LCD Display, 8 characters
- All electronics sealed in waterproof compartment
- Battery power with standard 6 alkaline D cells or rechargeable batteries
- Flexible pipe sizes from 200 mm (8 in), easy installation
- Optional flow proportional sampler triggering
- Optional ATEX -Approvals
- Optional GSM/GPRS Modem for wireless communication, using Quad-band antenna for world-wide usage

Accessories:

- Portable and office computer systems
- Pipe mounting bands
- Alkaline or rechargeable batteries
- Optional telephone modem

Pipe Mounting Band

Q-Eye Rugged Reliable Performance

Q-Eye the complete, state of the art system to portable flow monitoring. The system has been designed for reliable operation in harsh field conditions present in sanitary sewers. Field serviceable, solide-state electronics are isolated in a separate, waterproof compartment inside Q-Eye´s POM-housing (Polyoxyinethylen). Q-Eye uses standard alkaline batteries which are easily replaced without exposing the electronics. A solid-state, direct immersion pressure transducer senses flow depth over the full range pipe capacity, from surcharged conditions to completely dry. A redundant submerged ultrasonic level sensor is combined in the velocity sensor.

Q Vision Software

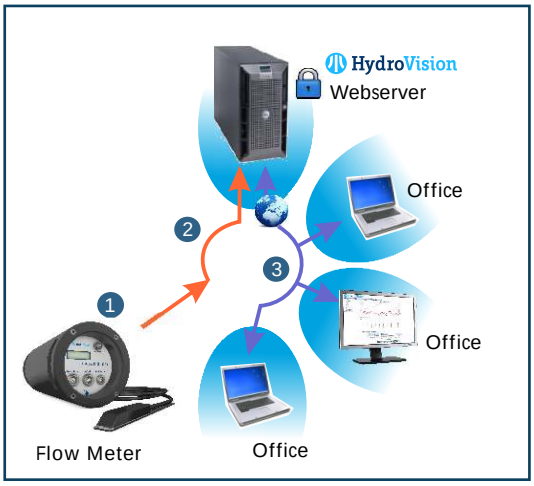
Q-Eye MII GSM/GPRS

In comparison to Q-Eye MII, the Q-Eye MII GSM/GPRS is already equipped with an internal modem for data transmission. Several types of externally connectable antennas are available, depending on your application.


Quad-Band
GSM Antenna


Quad-Band
Subsurface
GSM Antenna

Data Management via Internet

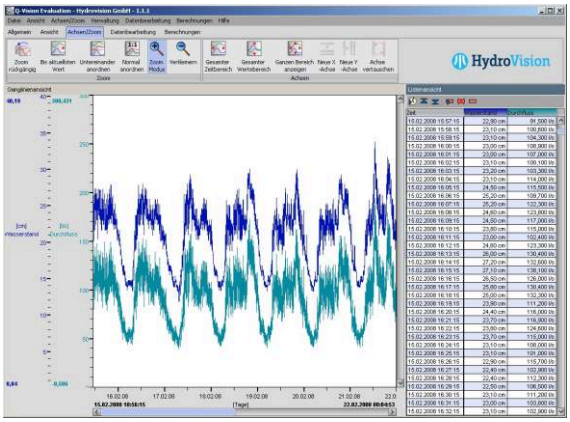


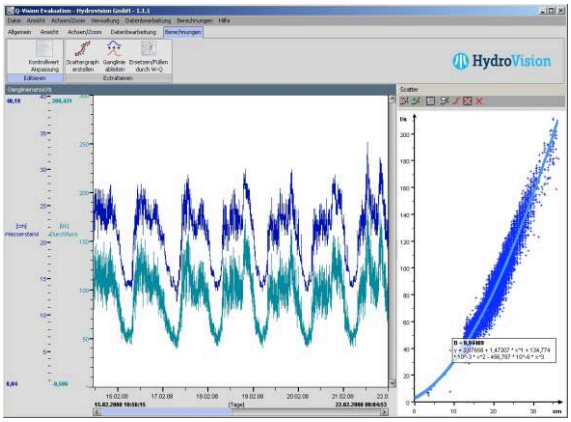
With HydroVision's WebAccess you can securely access your measurement data from any computer in the world. You can review, analyse and download recorded water level, discharge or velocity data by using your Internet browser. No additional software required on your computer. And of course, access to your data is password protected, so security and confidentiality are ensured at all times.

1.) Data are recorded by the flowmeter
2.) All new data are automatically transferred via FTP to HydroVision's WebServer
3.) Transferred data can be accessed from any computer using an Internet browser

Q-Vision Evaluation

Q-Vision Evaluation provides for evaluating time-related data.
Measuring values from our instruments Q-Eye M-II, Q-Eye PSC, Q-Eye PSC Pro, AquaProfiler™ and Q-Eye MT can be read and evaluated directly. However, other parameters for example water quality, rain events or pump runtimes can also be imported and evaluated in *.csv or ASCII format. Several parameters can be presented simultaneously in a graphic as a curve as well as in tabular form.





Zoom functions and the freehand scaling of the time events series on the x- and y- axis guarantee you a detailed view at special events. Comprehensive editing and corrections are possible for single values and complete time events. Scattergraph capabilities allow you to perform complete QA/QC on the data and also recognise any unusual hydraulic situations. You can add commentaries and close gaps, you can derive the flow via Q/H relationship or according to Manning-Strickler and visualise it as a further derived time events. Correlations between arbitrary parameters can be calculated, in order to determine the relationship between a dependent and an independent variable. An export of the data files and the printer feature are also included.

Technical Data

System		
System	**Q-Eye MII**	**Q-Eye MII GSM/GPRS**
Acoustic Frequency	1MHz	
Data logger	internal 2MB	
Interface	1*RS232	
Modem	n.a.	internal (850/900/1800/1900 MHz)
Antenna/s	n.a.	Quad-band GSM - suitable for outside installation, 2,5 dBi, 5m cable and mounting kit
		Quad-band GSM subsurface - suitable for inside manhole or buried installation, -5dBi typ. (800/900 MHz) -7dBi typ. (1800/1900 MHz) incl. 5m cable and mounting kit
Power supply	10 Ah reachargeable NiMH or 16 Ah standard Alkaline battery (Mono / D-Size)	
Memory life	> 2 years, typical @ 5min intervals	
Ambient conditions	Operating temperature: -20°C to +70°C (0°F to 158°F), 100 % humidity	
Enclosure	Polyamid IP69 (to EN 60529) H*D: 290*160 mm (11.42 *6.30 in)	Polyamid IP69 (to EN 60529) H*D: 350*160 mm (13.78*6.30 in)
Weight	8 kg (17.6 lbs)	9 kg (19.8 lbs)

Combination Sensor

Depth	
Depth range	0 to 3.5 m (0 to 11.55 ft.) for hydrostatic type; 0.04 to 1.3 m (0.13 to 4.3 ft.) for submerged ultrasonic
Accuracy	+/- 0,1 % for hydrostatic type; 1% +/- 0.003 m for ultrasonic type
Over range protection	4x for range above 3.5 m H2O (11.55 ft.)
Operating temp.	-35°C ... +60°C (-25°... +140°F)
Velocity	
Sensor Type	Pulse Spectral Correlation (mouse type)
Velocity range	-5.3 to +5,3 m/s (-17 to +17 fps); bi-directional Minimum depth: 4cm (1.25”)
Accuracy	< +/- 1 % of mean velocity reading; +/- 0,25 cm/s
Cable length	10 m (30 ft) standard, other lengths optional, max. 80m (262 ft)

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