

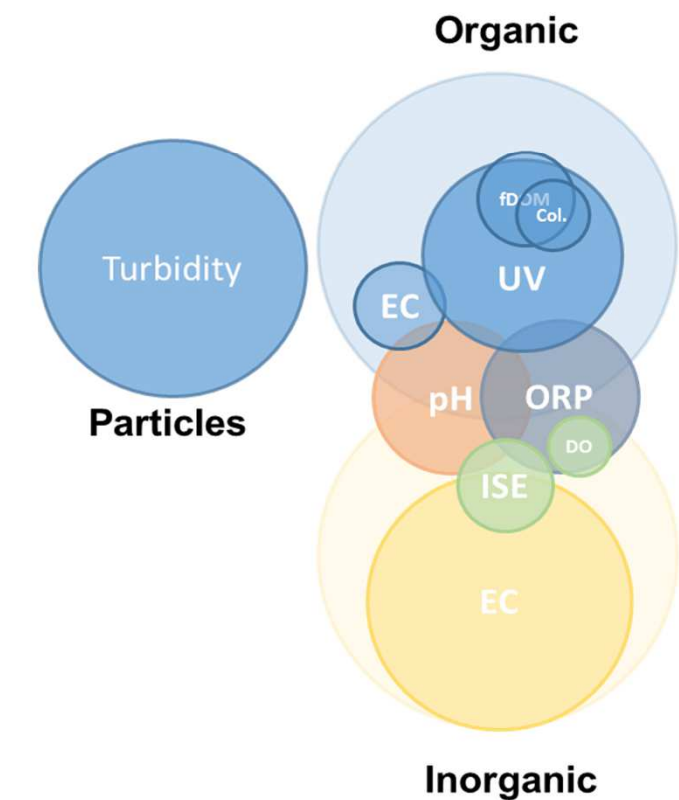
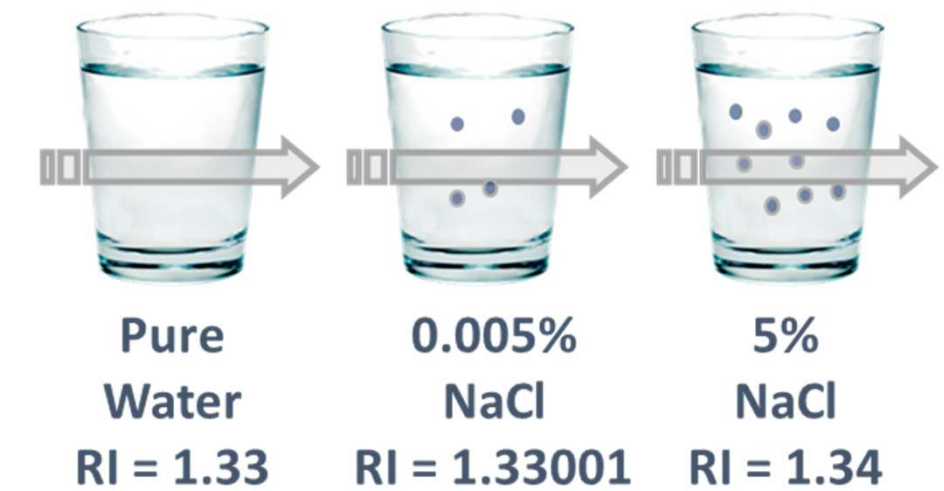
Innovative water quality monitoring solutions that outperform traditional tools



Trust your water

Single sensor for real-time detection of full spectrum of chemical contaminants

- Optiqua's optical sensor detects minute **changes** in the refractive index (RI) in water
- **Any contaminant** dissolved in water, changes the RI of the water
- **Single sensor** for real-time detection of **full spectrum of chemical contaminants**
- **Key sensor aspects:**
 - Sensing technology: Mach-Zehnder Interferometer
 - Technology platform: 'standard' Si_3N_4
 - Operating wavelength: 850nm
 - Sensitivity: low ppm range
- **EventLab system:**
 - Complete solution for real-time continuous water quality monitoring & water security

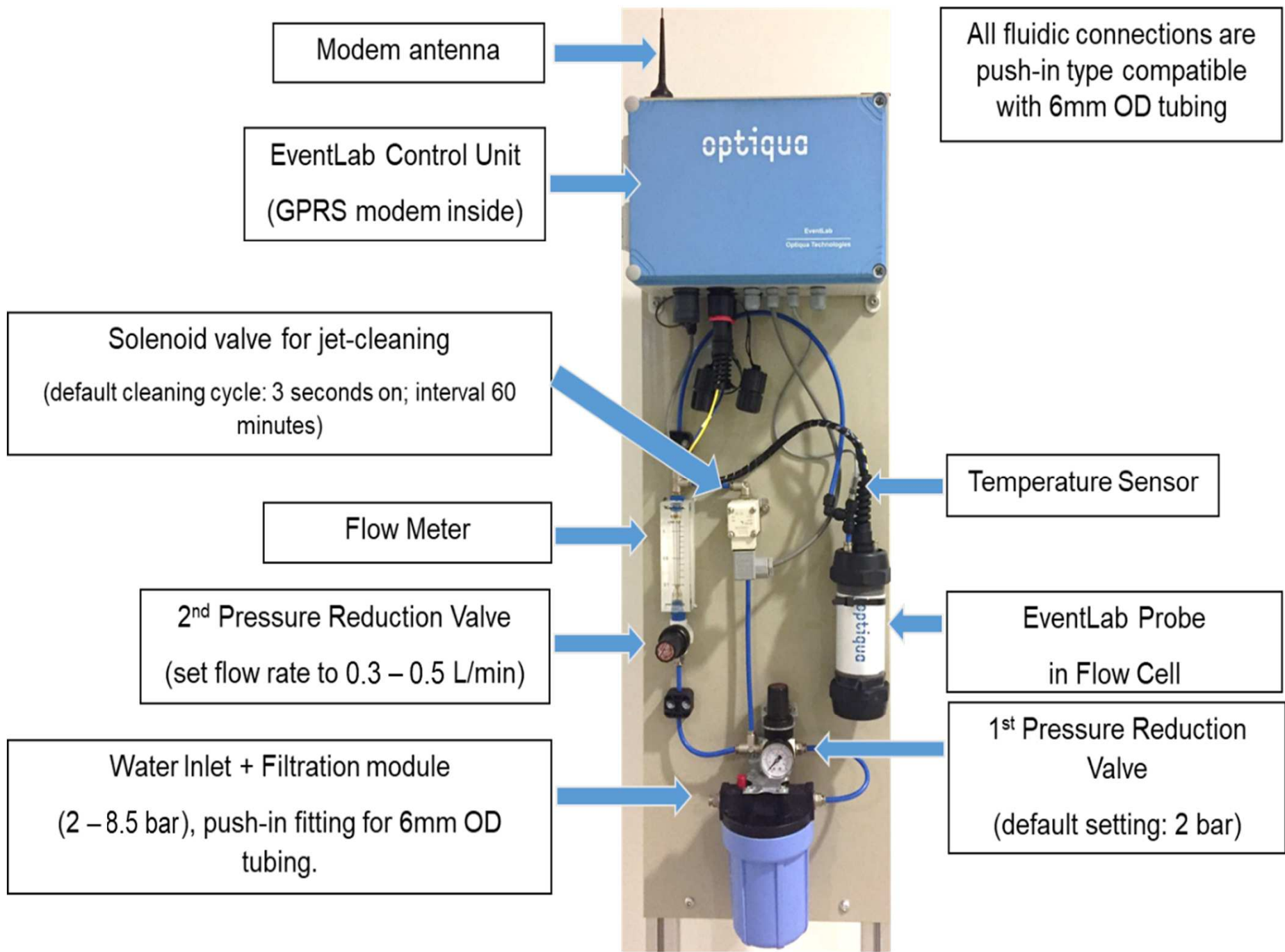


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EventLab: complete solution for real-time continuous water quality monitoring & water security

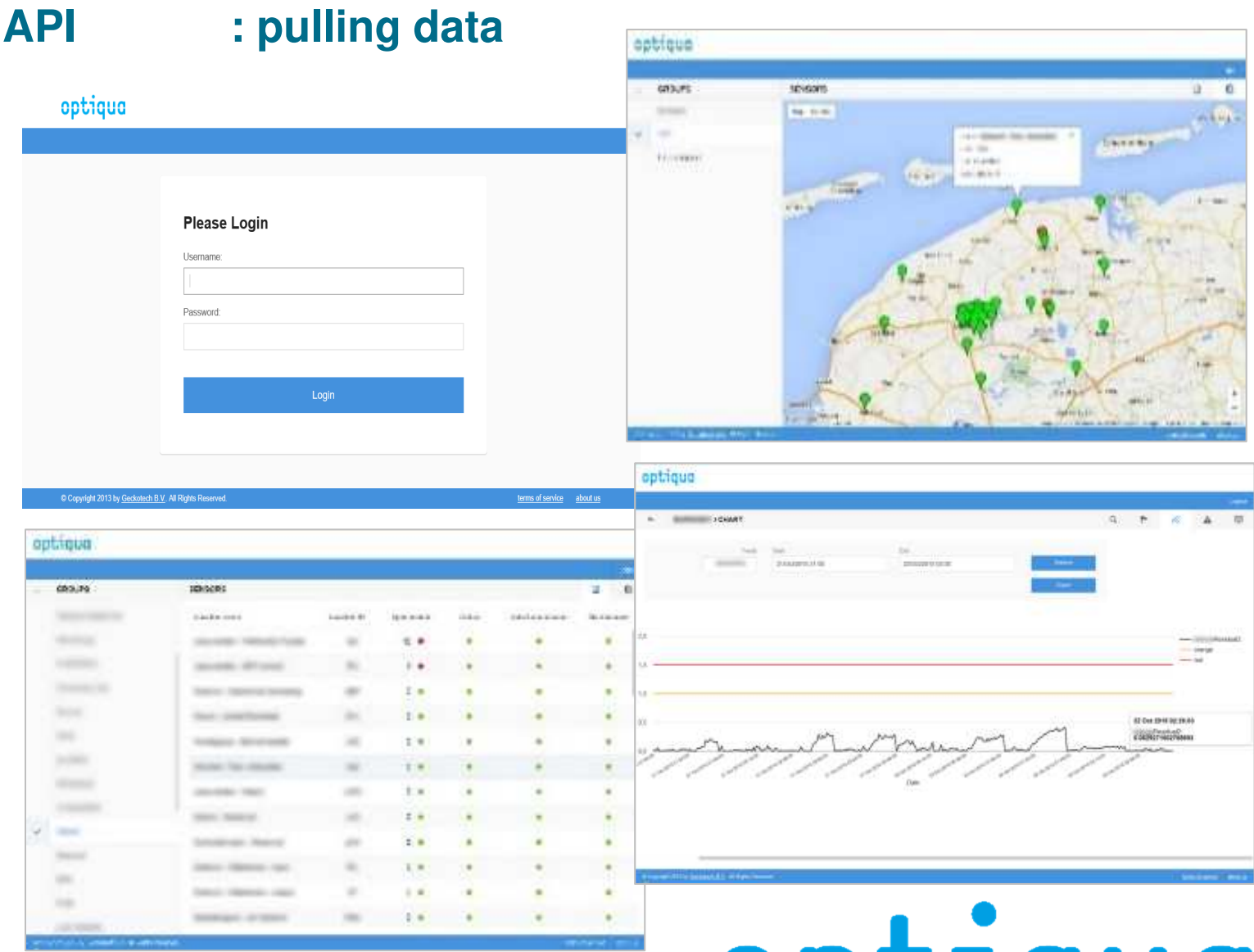
EventLab system

sensor probe - control & processing unit - peripheral hardware



EventLab Online

Web portal: sensor network overview - data visualization - data algorithms - event reporting (email, SMS)
API : pulling data



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Easy to handle and robust sensor probe



Pigtailed MZI sensor chip



EventLab probe with potted MZI sensor chip



EventLab probe with flow tube and flow restrictors mounted in flow through cell

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Deployment at all critical nodes in water production and distribution



Production plants
Reservoirs
Pump stations
Main distribution pipes
Critical infrastructure (intake monitoring)



Current and (near) future challenges

Current challenges

- Reduced **temperature sensitivity**
- Reduce sensor **contamination** especially in more challenging water matrices (e.g. intake/raw water)
- From **(Sensor)Data** to **Information** to **Response Protocols**
- From **Event Signaling** to **Event Interpretation/Classification**
→ combination other (sensor) data – data fusion - AI

Future challenges

- **Market broadening** → new application areas
- **Volume increase** → sensor chip, pigtailed
- **Critical suppliers & cost price reduction** → sensor chip, pigtailed
→ 'custom' parts: light source; PM fiber V-groove assembly

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Thank you for your attention

For more information

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