# Smart, reliable and flexible sampling

Solutions

The stationary Liquistation CSF48 and portable Liquiport CSP44 form the perfect sampling team

#### Reliable sampling made simple

The stationary Liquistation CSF48 and portable Liquiport CSP44 offer uniform operation and unmatched modularity. These robust samplers are designed to match any kind of water or wastewater sampling requirements. Based on the Liquiline®/Memosens® platform, they provide familiarity in their operation and a unique advantage of four additional analytical sensors for a complete monitoring station.

#### Your benefits

- Single product: collect samples and measure water quality at the
- Reliable: robust sampling is compliant with local and international regulations
- Flexible: suitable for a broad range of applications and sampling locations thanks to modular hardware and flexible programming
- Easy maintenance: increase repair intervals and lower costs with tool-free removal of components, Heartbeat® Technology for advanced diagnostics and verification
- Intuitive: common operating concept for easy commissioning and sample program generation





# Platform concept

### One sampler for all applications – easy to use and simple to maintain

The Liquistation and Liquiport samplers are unrivalled in their flexibility. Whether you require simple time based sampling, or a more complex program which incorporates conductivity or pH events, a solution is available. Multiple Memosens<sup>®</sup> inputs are available for each, meaning you can form a complete measurement station in just one sampler

#### Easy to use

- Based on the Liquiline® platform, the samplers feature a common interface to simplify the setup. They can configure the sampler quickly and safely with flexible programming
- Intelligent software recognises digital Memosens® sensors allowing "plug and play" to simplify commissioning further
- The uniform menu structure brings the platform concept to the management level. Use the same procure for all of your analytical measurement points
- Ease of transportation is a priority for liquid sampling.
  Split bottle trays, sampler trolleys and a large variety of bottle configurations make it safe and comfortable.

#### Simple to maintain

- Cleaning the sampling station is extremely easy. Both the peristaltic and vacuum pump options can be removed without any tools.
- The compact cooling system with 24 VDC eliminates problems associated with different line voltages and can be maintained and replaced without expert knowledge.
- With all Memosens® pre-calibrated in the laboratory, exchanging sensors quickly and maximising process uptime is easily possible.
- The exchange of electronic modules is simple since they are automatically recognised.









Watch Demo Scan the QR code or click here to access the Liquistation CSF48 commissioning and maintenance videos

## All in one solution

### Sampling and measurement at the same time

The Liquistation and Liquiport systems are in a sampling class of their own. Not only do they guarantee safe and flexible sampling, they can also be used as a complete measurement point.

#### More than just a sampler

The sampler can be provided with up to four additional Memosens<sup>®</sup> sensor inputs, turning your sampler into a complete water quality monitoring station, providing:

- Online measurement of multiple parameters: pH, OPR, conductivity, dissolved oxygen, nitrate, TOC, SAC and turbidity
- Hot plug & play sensors
- Event-controlled sampling: if, for example, a conductivity sensor is connected to the sampler and the value exceeds a specific limit, this event can trigger sampling that overrides the current sampling program

#### Two sample intake technologies

- Vacuum pump for demanding applications. It provides high accuracy and repeatable sample volumes, its high suction speed quarantees representative sampling
- Peristaltic pump for short intake and suction heights.
  It can be easily adapted for variable sampling volumes and is suited for toxic applications due to fewer contact points.

#### Numerous bottle configurations

- Up to 17 different bottle configurations are available, from one 60L bottle to twenty-four 1L bottles
- Two bottle materials, plastic or glass, allow perfect adaption to any kind of sample and guarantee complication with EPC, DIN/IEC and ISO
- Customised bottle configurations are also available, for example, a mixture of glass and plastic configurations

#### Flexible sampling programs

Any combination of standard and alarm programs are possible for single or mixed samples. Download sampling program setups and export to a fleet of sampling systems. Three program version are available:

- Time-proportional sampling starts at a selected time and is repeated in set intervals with identical or variable sample volumes
- Flow-proportional sampling is triggered when the flow input indicates a set flow rate or totalised volume
- Event controlled sampling is triggered by a set event such as a conductivity spike, pH change or when

#### High-quality hardware

- Refrigerated system to ensure samples remain stable in the harshest conditions
- Stainless steel and plastic housing options depending on the installation environment
- Ambient temperature range from -30 to +50 °C
- Vandalism proof housing to prevent sample tampering

#### Easy user interface

- Intuitive menu guidance, harmonised over all devices of the Liquiline family of analysers
- Easy operation provided by robust navigator dial and four soft keys
- Large graphical display to display the maximum amount of information in plain text
- Concise instructions on alarm allow for efficient troubleshooting





## Accessories

The samplers are provided with a wide range of accessories to adapt to your process. This allows seamless integration into your existing plant infrastructure. Standardised mounting hardware can be easily ordered from our factories, meaning you don't have to fabricate your own mounting accessories.



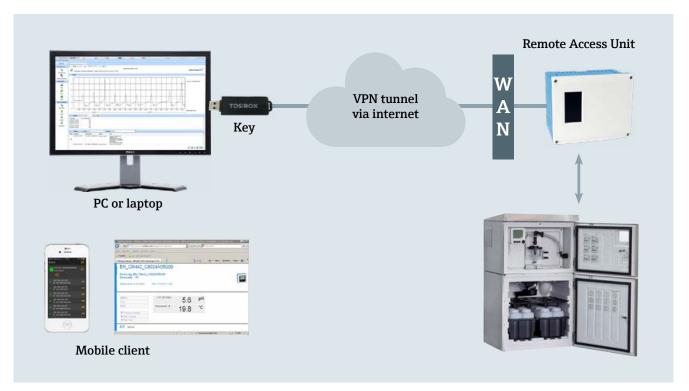
#### Solar solution

Sample preservation is critical to the overall performance of your sampling system. Whilst portable samplers are highly versatile; their refrigeration capabilities limit them since this requires a large power draw. Rather than accept limited sampler refrigeration, a solar-powered, mobile solution can provide unlimited refrigeration whilst retaining the portable concept. Talk to your Endress+Hauser representative and start developing your solution today.



#### In-line sampling

A complete sampling unit for pressurised pipes comprises of a Liquistation and Samplefit CSA420. This allows sampling up to a maximum pressure of 6 bar with either flanged or tri-clamp type connections. The sampling procedure is full automated, including cleaning. This prevents sample contamination and ensures that your measurements are representative.



#### Remote access

Since the Liquistation is available with an optional webserver and EtherNet/IP capability, an additional modem can be supplied to access your sampler remotely. This provides numerous benefits, particularly in remote sampler locations. With remote access, you can easily trigger samples from the comfort of your control room, without the long journey to the site. In addition, if your operators are required to perform routine maintenance, they can ensure that they bring the right spares by performing a remote Heartbeat Verification. This provides a snapshot of sampler functionality and identifies any spares that may be required before you attend site.

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