Pumping station monitoring

Extensive monitoring system for pumping stations fleet. Digitalized solution for data capture, remote monitoring, analytics and alarms to optimize maintenance of pumping stations with 2 pumps, a tank and a backpressure valve.

This type of pumping station is very commonly used in waste water networks.

Easy installation for data capture: VT04-H field devices are installed in electrical cabinets and do not require any configuration on site.

Components

- A VT04-H field device to be installed in pumping stations that transmits the measurement data to a cloud service. Data transfer start automatically when power is switched on enabling plug-and-play connectivity. For more information, please see VT04-H data sheet.
- Cloud service: Storage of the collected data
- Process and equipment predictive maintenance indicators and alerts.
- Customer interfaces:
  Real-time web-based user interface with Fleet view and Pumping station view (see description below). Can be seen on a mobile phone, computer or "tab". The frequency of historical data review is freely defined. Example views, please see end of this document.
  SMS Alerts
  Downloading measured data and analysis results to your device. (csv – export)
  REST-API over https

VT04-H
for data
capture

Pumping Station View – Standard view of the operation of two pumps and a tank

Base data and measured data
- Time and date
- Place of use/Address
- Water level
- Upper limit switch setting value and switching information
- Pump phase current (A)
- Pump starting quantities
- Total pump running times
- Upper limit switch alarm
- Fault alarm
- Usage history graph

Analysis of pump cycles
- Pumping cycle length
- Pumping phase current
- Pumping interval
- Duty cycle

Optional features
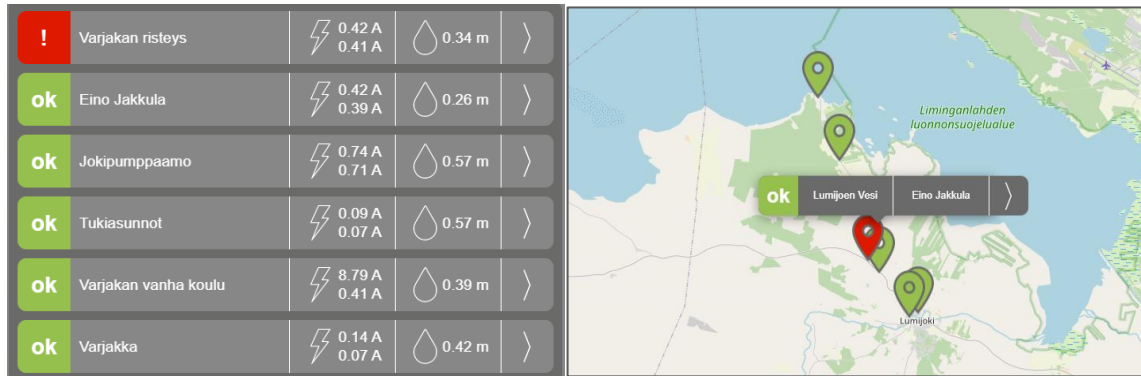- Pumping station output (m³/day)
- Electric grid supply fault alarm

System integrations with other systems

For REST-API, please see separate a description document. Also, other type of data transfer integrations on PUSH or PULL basis are available on request.
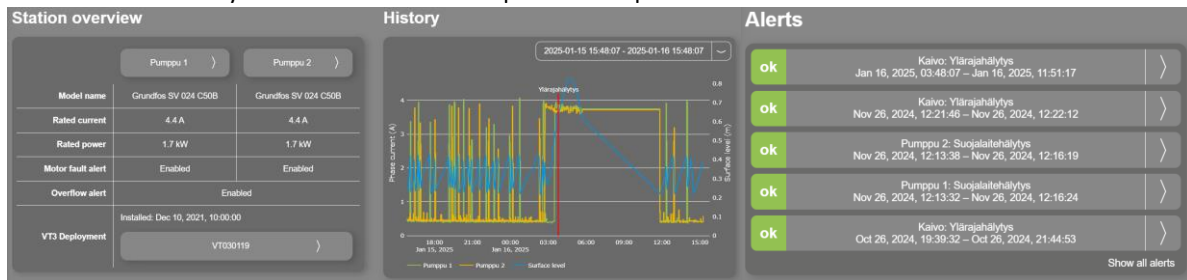
Monitoring views

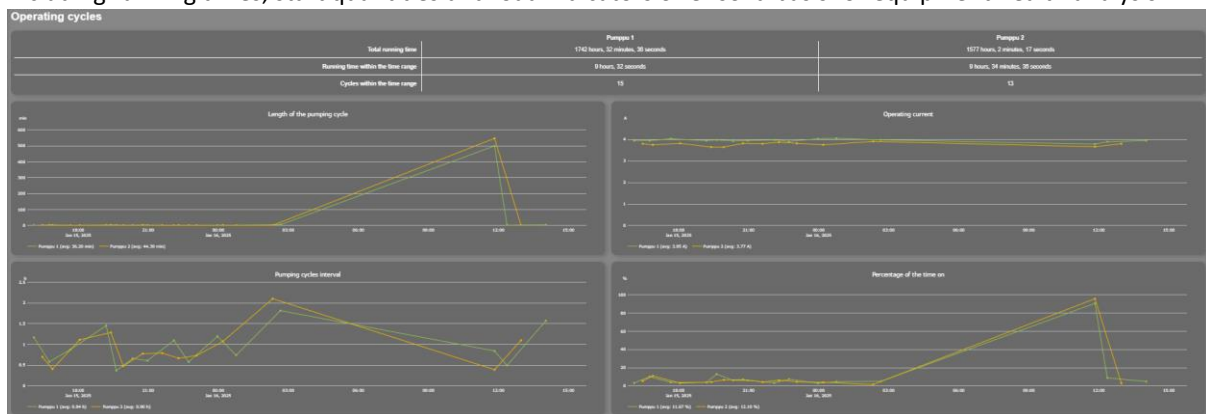### Fleet view

Grid and map for easy navigation

Pumping station view

With equipment data, water level and each pump load history data and alerts in local language provide an excellent insight of the pumping station operational status. The data is available for the complete measurement history and can be zoomed to specific time periods and events.

Operating cycles

Including running times, start quantities and load indicators offer solid basis for equipment health analysis

Optional pumping station output (m³/day)

Can be used for pumping station loading analysis and wastewater pipe network leak identification through recognition of irregular rainwater entry and pumping.