PRODUCT CATALOG

A WORLD OF POSSIBILITIES

ACOWA
INSTRUMENTS

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INSTRUMENTS

TurTle

TurTle is a revolutionary pressure transmitter. TurTle is recognized by its robust design and is developed specifically for the water and sewerage branches. TurTle's unique measurement cell can be separated from the rustproof sensor tube. In this way the measurement cell can be replaced without having to replace the entire electrical installation, or in the case of a damaged cable, the measurement cell can be reused in a sensor tube.

TurTle's range of measurement is adjustable via a DIP switch on the rear of the measurement cell. TurTle can measure in 3 ranges: 0-3mVs, 0-5mVs or 0-10 mVs - all with 4-20mA output signal. Furthermore it is possible to zero-calibrate the measurement cell by using a DIP switch.

TurTle can be delivered with cables in four standard lengths: 10m, 15m, 30m or 50m.

GoPLe

GoPLe is used for level measurement in drinking water and sewerage water systems.

GoPLe is synonymous with high reliability as well as stability in level measurements. It measures by using ceramic capacitive measurement principals, and upon submersion, converts the liquid level to a 4-20mA current envelope.

GoPLe is delivered in two measurement ranges, 0-3mVs and 0-5mVs and with a fixed cable length. Specific measurement range and cable length can be offered upon request.

mini-GoPLe

ACOWA mini-GoPLe is used for level measurement in water wells.
ACOWA mini-GoPLe equals high reliability and stability in level measurements. Signal from mini-GoPLe is standard 4-20mA but can be offered as both 0-10V DC, 0-5V DC or Modbus signal.

Mini-GoPle is a precision 2-wire transmitter with a silicon piezo-resistive measuring system and a sensor membrane in AISI316 stainless steel. Diameter of mini-GoPLe can be selected as 13mm, 16mm or 19mm. Cable lengths are from 10m and up.

Individual measuring range and cable length can be offered on request.
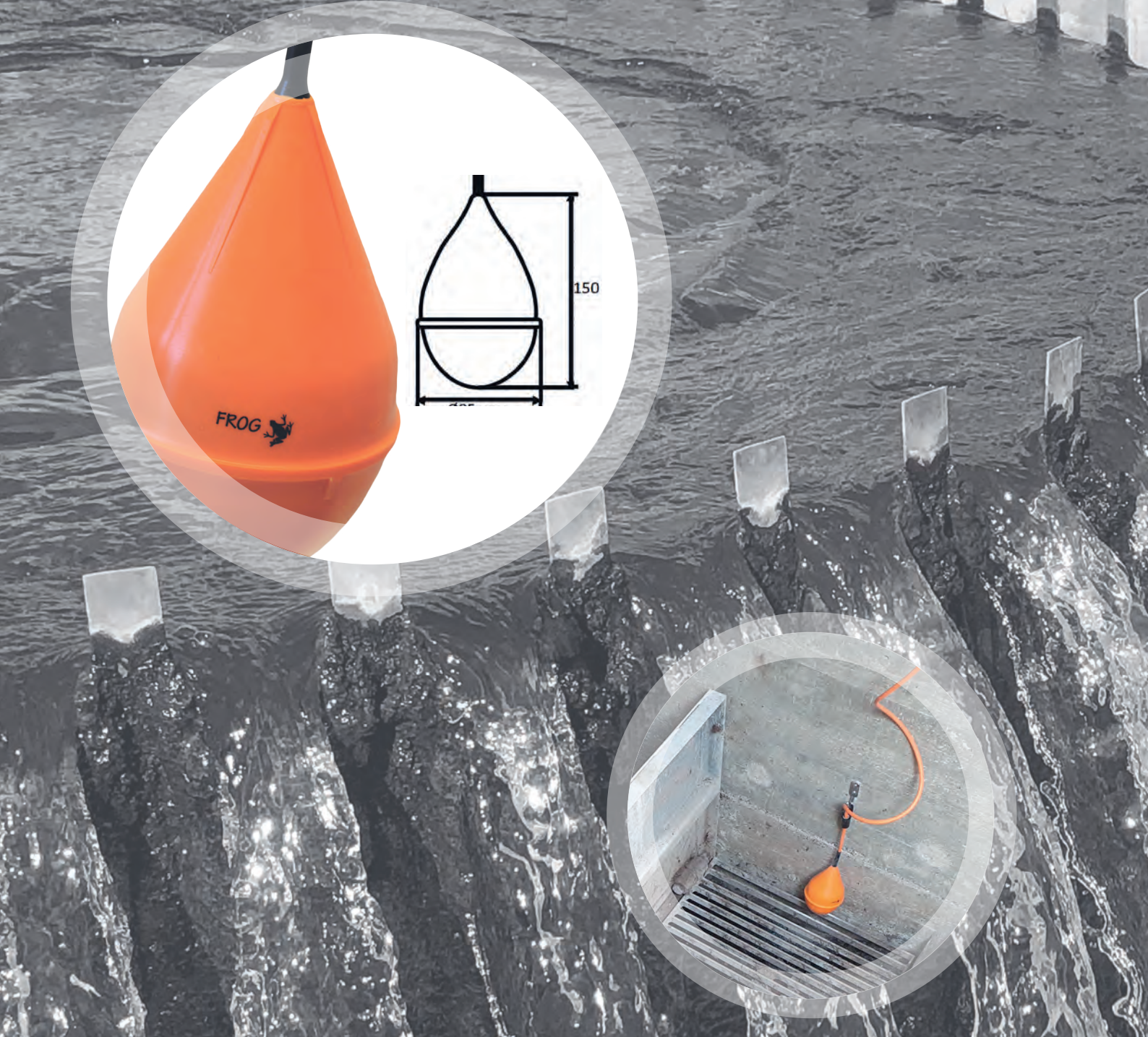
FROG

FROG is a standard float switch with a micro switch for either a Normally Open (NO) or a Normally Closed (NC) status signal.

FROG is delivered in versions with a 10m or 20m fixed-mounted high-flexibility cable. A mounting bracket is included in both versions.

FROG is used as a high water level alarm in pump stations, low water level alarm in clean water tanks, water on floor alarm, as a controlling switch for pumps and many other functions.

For FROG a counterweight of 400 gr. can be provided.

CaNaRy

The CaNaRy hydrogen sulphide measurer has been developed with a robust design for mounting in pump stations, building structures and similar.

CaNaRy is based upon a compact yet simple construction, where the measurement cell can be exchanged without requiring calibration.

CaNaRy can measure hydrogen sulphide in concentrations from 0-300ppm and transform this to a standard 4-20mA signal.

CaNaRy is factory-calibrated upon delivery and is ready for mounting. The measurement cell in CaNaRy does not require calibration during its entire lifetime, which is more than two years.

CaNaRy can be delivered with four different cable lengths - 10m, 15m, 30m or 50m.

PUMA

PUMA pump control is a universal compact single-pump controller with the possibility of communication. It can operate both 1-phase and 3-phase pumps up to 12A (5.5KW).

PUMA measures the level in the well via standard 4-20mA analog level meter and can start and stop the pump automatically. It has integrated standard functions for flow and capacity calculation as well as emergency control via the high-level float switch.

PUMA has a unique function for current measurement on all 3 phases as well as phase sequence detection. It also has 2 digital inputs for high level alarm – as well as a 2 digital outputs for general alarm.

PUMA is constructed with a two-part impact resistant IP65 encapsulated housing which easily can be mounted on walls, in street cabinets and other enclosure - due to its compact size of only 24cm in width. The PUMA housing is designed for easy connection via bottom-mounted fittings and a combination of screw terminals and spring clamps.

PUMA pump control can be delivered, as standard without communication interface, or as an option 4G or NB/IOT modem which uses Modbus TCP/IP protocol for communication to either the AcowaCore / AcowaDash platform, or to the customer's own SCADA/SRO system.

For daily operation, PUMA has a 2.4" OLED display in the front and 4 control buttons.

SPIDER

SPIDER is a universal RTU-device with standard functions for:
- Pump control
- Data gathering
- Alarm management
- Ground water management

SPIDER is produced and developed in Denmark. The hardware and software design is based upon many years of experience with SRO components. SPIDER complies with all specifications for electronic components that can be placed in demanding environments.

SPIDER is a compact unit for mounting on a DIN rail. It is delivered in a standard version with GSM/GPRS or 4G modem and without a display. The enhancement of SPIDER is by way of modules and can be customized for specific applications.

SPIDER I/O-modul

If several signals need to be connected to a SPIDER pump management system, then the SPIDER I/O expansion module can be used. By using this module, the SPIDER pump management system becomes even more flexible and can gather several operation and alarm signals.

When the SPIDER I/O module is connected to the SPIDER pump management system, the status of the analog and digital inputs can be read from the upper PCB where indicator diodes are mounted. This provides the user with a good overview of the operation and testing of the module.

The SPIDER I/O module includes 8 digital inputs and 2 analog inputs in the 4-20mA range.

EAGLE II HMI

The visualization of operating data and parameters requires a comprehensible display.

EAGLE HMI is designed for modern pump stations where important data must be easily accessible and comprehensible. EAGLE HMI is built upon many years of experience with HMI designs that are easy to use and provide a good overview of the process.

The EAGLE HMI display has a 7" widescreen format with high resolution, touch-sensitivity and color, as well as good background lighting. These parameters ensure that EAGLE HMI always can be used, irrespective of weather conditions and temperature. EAGLE HMI includes communication either by serial RS485 or Ethernet TCP/IP.

EAGLE HMI includes a driver for 200 known products, this including SPIDER, Siemens S7 PLC, Allen-Bradley PLC, Schneider Modicon PLC and more. By using EAGLE HMI together with the SPIDER I/O-module, it is possible to collect data from frequency transverters and other instruments with bus communication.

HMI features:
- Easy management of pumps
- Alarm list with start and end times
- Simultaneous graphic display of multiple analog signals
- Access to pump operational data
- Easy access to configuration parameters

GEKKO

GEKKO data logger has a robust industrial design with an IP-67 classification. It can be powered by 2 lithium batteries or an external 12-30V DC power supply.

GEKKO is designed for use in wastewater and water supply applications. It can gather and log various types of data, e.g. used for H2S detection, level measurement, overflow registrations and for registration of precipitation events.

GEKKO can communicate via standard MODBUS TCP/IP or SMS commands. Communication is via the built-in 4G modem on its own PCB. This allows for upgrading the communication to future communication forms without replacing the entire data logger. Furthermore, GEKKO will also be capable of supporting Sigfox communication.

There is a USB interface for programming the GEKKO or for downloading the log into the datalogger. GEKKO datalogger has a log capacity of 16.000 measurements.

GEKKO is delivered with 2 analog inputs 0/4-20mA, or 4 digital inputs, where 2 of these can be configured as 0-10V inputs. Furthermore, there is the possibility for RS485 MODBUS communication with external units.

FIREFLY

FireFly is designed to use as a simple alarm device according to the term "The local red the alarm lamp has become intelligent".

FireFly is an intelligent battery-powered or fixed 3V DC alarm unit intelligent alarm unit that can replace the existing red alarm light, so pump alarms and high-water lashes are sent directly to the SRO system via Sigfox communication.

FireFly comes with 2 parts. digital inputs, plus 1 pc. analog input 0-10V DC, which can be used to measure current pump current, as well as provide the number of start and run times if a coil is connected.

FireFly comes with 5 years of Sigfox subscription and batteries - easy to install.
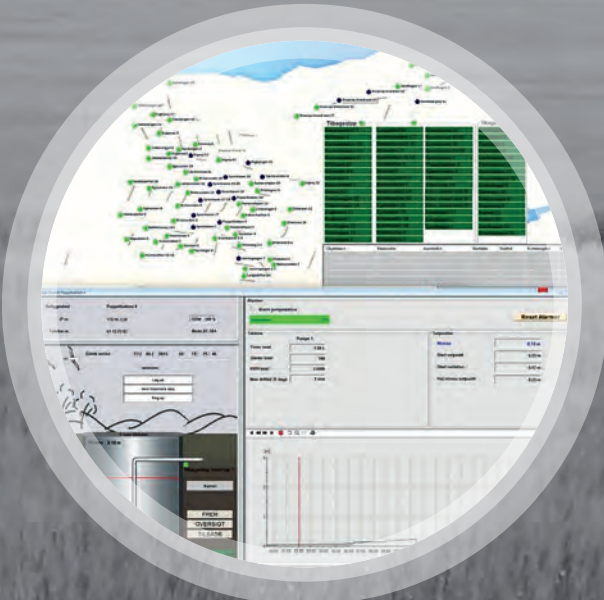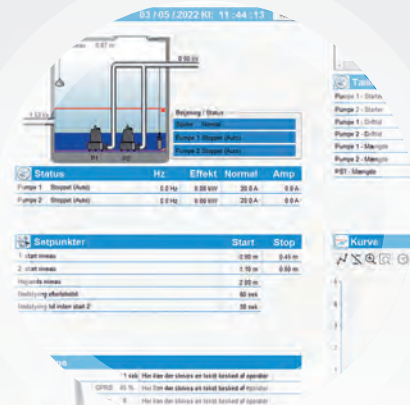
SCADA

ACOWA SCADA is developed in cooperation with Schneider Electric and consists of 6 standard packages. The system is an object-oriented SCADA system that can communicate with over 90 different hardware manufacturers.

ACOWA SCADA is offered in packages of 200, 300, 400, 600, 1000 or 2000 objects. It is a single user system with 2 standard drivers. If alarm software - Notifier - is desired, this can be purchased as well.

An APP has been developed for ACOWA SCADA, enabling management of pumps, graphs and alarms via smartphone or tablet.

COMMUNICATION

AcowaCorePro

ACOWA Core is a data processing program that can that can communicate directly with ACOWA units as well as convert existing historical data from the user's own SRO system - translating these into valid flow calculations at all pump stations and overflows.

These valid flow calculations can then provide the user with the following:
* Capacity calculations at all existing pump stations with historical data
* Inlet profiles at all existing pump stations with historical data
* Bullseye service module that provides a more special pump service plan
* Abundance calculations at all existing pump stations and overflow buildings with historical data
* Unauthorized detection of water at existing pumping stations with historical data, both direct and indirect diversion.

CORE

VISUALIZATION AND REPORTING

AcowaDash

ACOWA DASH is a visualization platform for AcowaCore.

DASH enables a custom interface that is intuitive and easy to understand. It collects all information about all pump wells, both capacity calculations and inlet flow, precipitation data, hydrogen sulphide and abundance events, as well as calculations - and visualizes this information in a custom design.

ACOWA DASH also enables easy, user-fiendly reporting of e.g. abundance events and unauthorized detection of water because all data is simple and can be extracted as CSV files from the system.

ACCESSORIES

There are many accessories available for the ACOWA products which enables ACOWA product to be even more flexible.

These accessories include antennae for SPIDER, GEKKO and PUMA, current coils for SPIDER pump management, as well as counterweights for FROG. It is also possible to connect an energy meter via MODBUS RTU to SPIDER.

ABOUT ACOWA

ACOWA was established in 2014 by people with vast experience in the water and sewerage branch.

ACOWA has its headquarters on Samsoe, but components are distributed worldwide from its stock located in Roskilde.

Right from the beginning ACOWA has had a great focus on developing high-quality and stable products - with sustainability in mind. All ACOWA products are designed, developed and produced in Denmark, and a substantial part of the development takes place in a close dialogue with the customer.

This is what we call DANISH INNOVATION, DESIGN AND QUALITY

FUTURE-ENSURED INSTRUMENTATION

The mission for ACOWA Instruments is to deliver quality products for instrumentation - based upon that latest technology and equipped with both advanced and tested functions. If you choose an ACOWA product, you choose a future-ensured product.

Our competent developers are constantly monitoring trends - ensuring that all products bearing the ACOWA Instruments name are amongst the best in the market. If it does not function then it is not an ACOWA product.

All ACOWA products - including hardware and software - are developed and produced in Denmark. Furthermore, all development takes place in close dialogue with our customers.

SUSTAINABLE DEVELOPMENT GOALS

As ACOWA is a Danish company that pays taxes in Denmark, we contribute to the Danish welfare state with jobs and taxes. We also employ a number of people through our Danish subcontractors, who exclusively produce ACOWA products.

All our products are developed and produced in Denmark. Therefore, the overall climate footprint is lower than that of imported products. This includes CO2 emissions and transport costs. Also, as production in Denmark is more expensive than other parts of the world, we focus on optimisation and waste removal.

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