# Flygt MAS 711 – For safety, low LCC* and high availability

*\* Life cycle cost*

*Pump memory*

*Optional power analyzer*

*MAS 711 Base unit*

*Operator panel*

*Access to browser pages stored in the base unit*

*Higher level system*
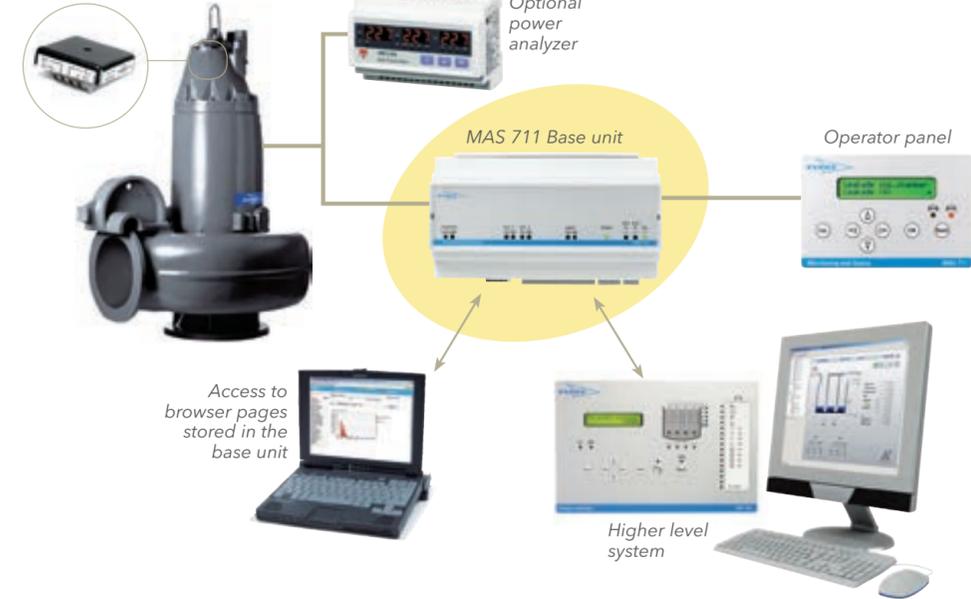
Settings for the customer's selection of sensors are factory-preloaded. These are uploaded to the base unit at installation, greatly simplifying set-up and assuring safety through the use of appropriate alarm limits based on Xylem's decades of experience.

When an unhealthy condition arises, Flygt MAS 711 triggers an alarm and may also stop the pump. A flashing light on the operator panel alerts the operator and a text appears in the display describing the alarm.

The alarm is also added to the alarm list on a browser page that can be accessed from the server embedded in the base unit. Alarms marked purple are linked to the alarm plot (or 'black box') function. Clicking on a purple alarm links to another page where the operator can display one

or more graphs of the data measurements leading up to and surrounding the alarm. Trained operators can then use this data to establish the cause of the alarm and take appropriate remedial action. If necessary, the operator then restarts the pump with the reset key.

Flygt MAS 711 also routinely backs up operation data from the pump memory. Based on this data, our MAS 711 can be set to prompt for servicing via the operator panel display on a preset date, or after a set number of starts or operating hours – for high availability and low maintenance costs.

Should the pump be modified during its life, relevant data, service notes, etc, can also be recorded and stored in the pump memory via Flygt MAS 711.

## Xylem [ˈzīləm]

1) The tissue in plants that brings water upward from the roots
2) A leading global water technology company

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

For more information on how Xylem can help you, go to xyleminc.com.

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### Let's Solve Water

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**www.flygt.com**

# Flygt MAS 711

## MONITORING SYSTEM FOR FLYGT PUMPS

### FLYGT
a **xylem** brand

# The monitoring system that remembers and records

Flygt MAS 711 is a pump monitoring system designed to remember, record and present pump events fast and easily. As part of a complete Flygt pumping system, it helps reduce costs over the pump's lifetime by facilitating maintenance and assuring safe operation, thereby increasing reliability and availability.

Detailed operation data can be accessed via Flygt MAS 711 for immediate analysis using a standard web browser on a PC (no special software required), or alternatively transferred to a higher level system such as a SCADA system.

With the many functions and features of Flygt MAS 711, you have Xylem's decades of knowledge and experience in monitoring and control of submersible pumps literally at your fingertips.
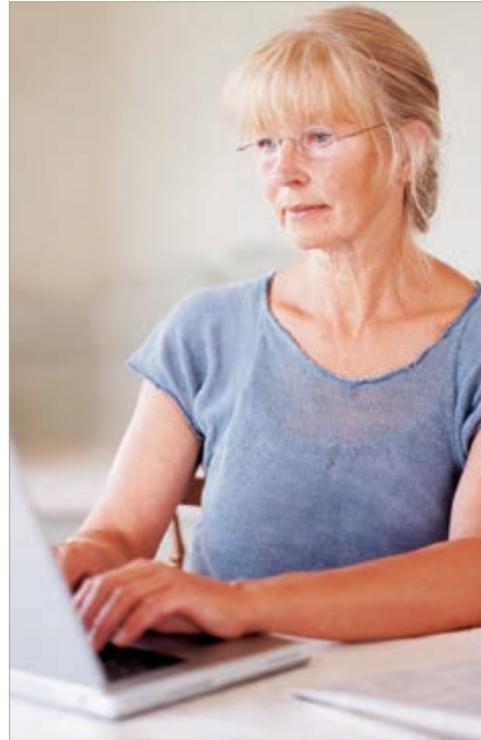
## Everything you need to know

Flygt MAS 711 monitors the pump's temperature, leakage, vibration, current and power (optional). In addition, it has a 'black box' function in case of pump failure.
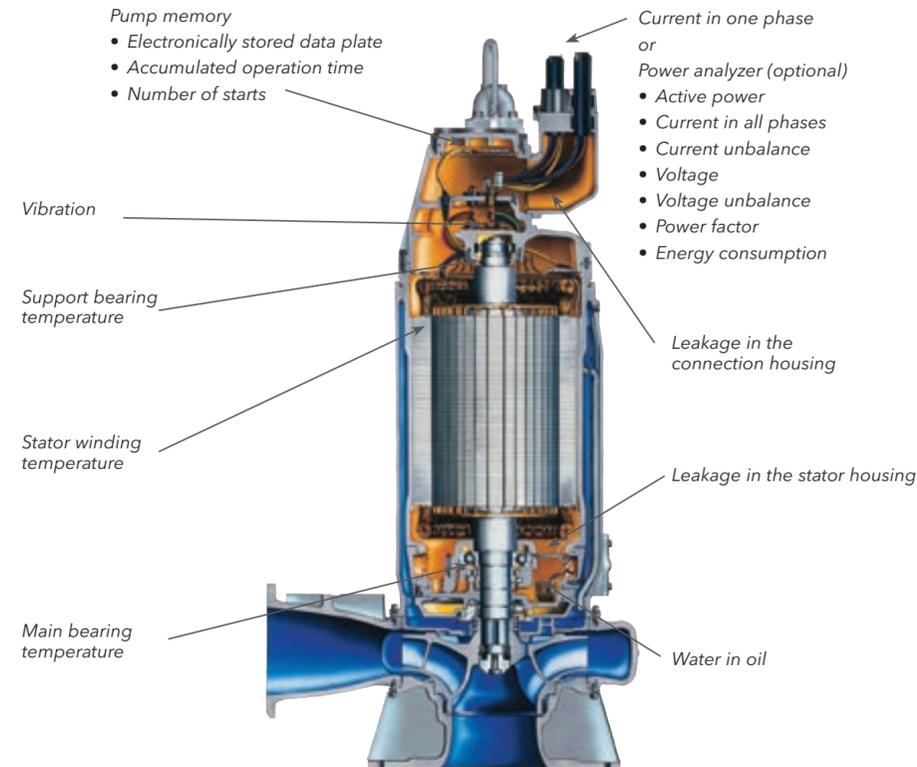
- **'Plug-n-play' with back-up**
  Flygt MAS 711 communicates with the pump's memory for fast and easy, 'plug-n-play' installation and routine back-up/synchronization of operation data and settings.

- **Communication options**
  With its ethernet, Modbus and modem communications ports, Flygt MAS 711 can communicate with most Supervision Control and Data Acquisition (SCADA) systems on the market.

# What Flygt MAS 711 monitors and records

*Pump memory*
- *Electronically stored data plate*
- *Accumulated operation time*
- *Number of starts*

*Current in one phase*
*or*
*Power analyzer (optional)*
- *Active power*
- *Current in all phases*
- *Current unbalance*
- *Voltage*
- *Voltage unbalance*
- *Power factor*
- *Energy consumption*

*Vibration*

*Support bearing temperature*

*Leakage in the connection housing*

*Stator winding temperature*

*Leakage in the stator housing*

*Main bearing temperature*

*Water in oil*

Flygt MAS 711 monitors and stores measurements from the customer's selection of factory-installed sensors. In addition, essential data about the pump useful for installation, servicing and maintenance (stored in the pump memory) is automatically synchronized with the corresponding data in the base unit every two hours.

Flygt MAS 711 uses the pump's data plate information stored electronically in the base unit and the pump memory to authenticate the pump during synchronization.

# Embedded server

The base unit stores all measurement data in an extensive database on its embedded server. Flygt MAS 711's powerful, user-friendly tools can then be used in a standard web browser to present this data and analyze alarm events in order to optimize pump operation.

Quick overview mode gives the operator a snapshot of the pump's status. All the installed monitoring functions are presented in a list showing current status and measurement results. Where an alarm has been triggered, a red or yellow indicator notifies the operator.

In set-up mode, the operator can set application-specific alarm limits.