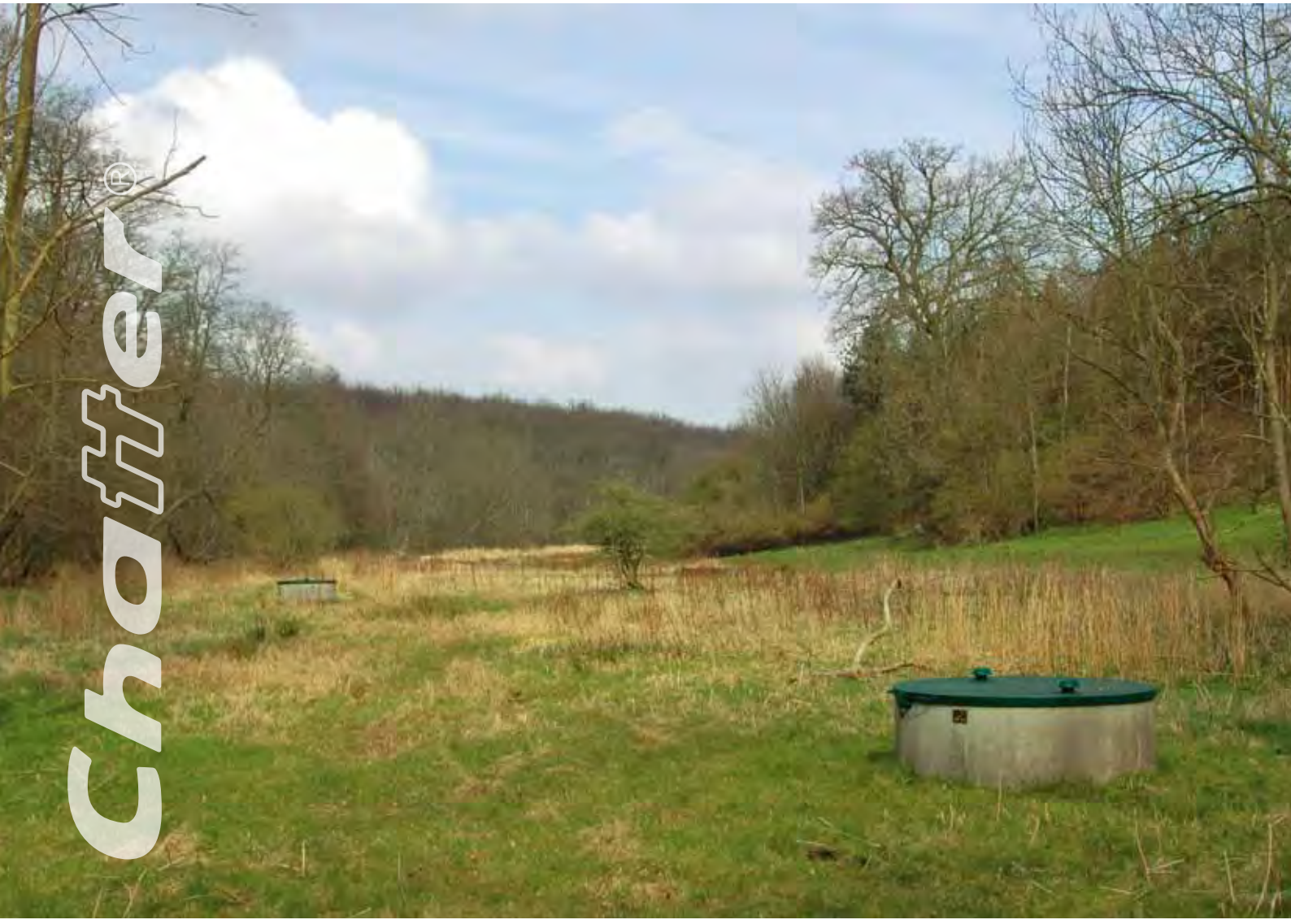
mjk

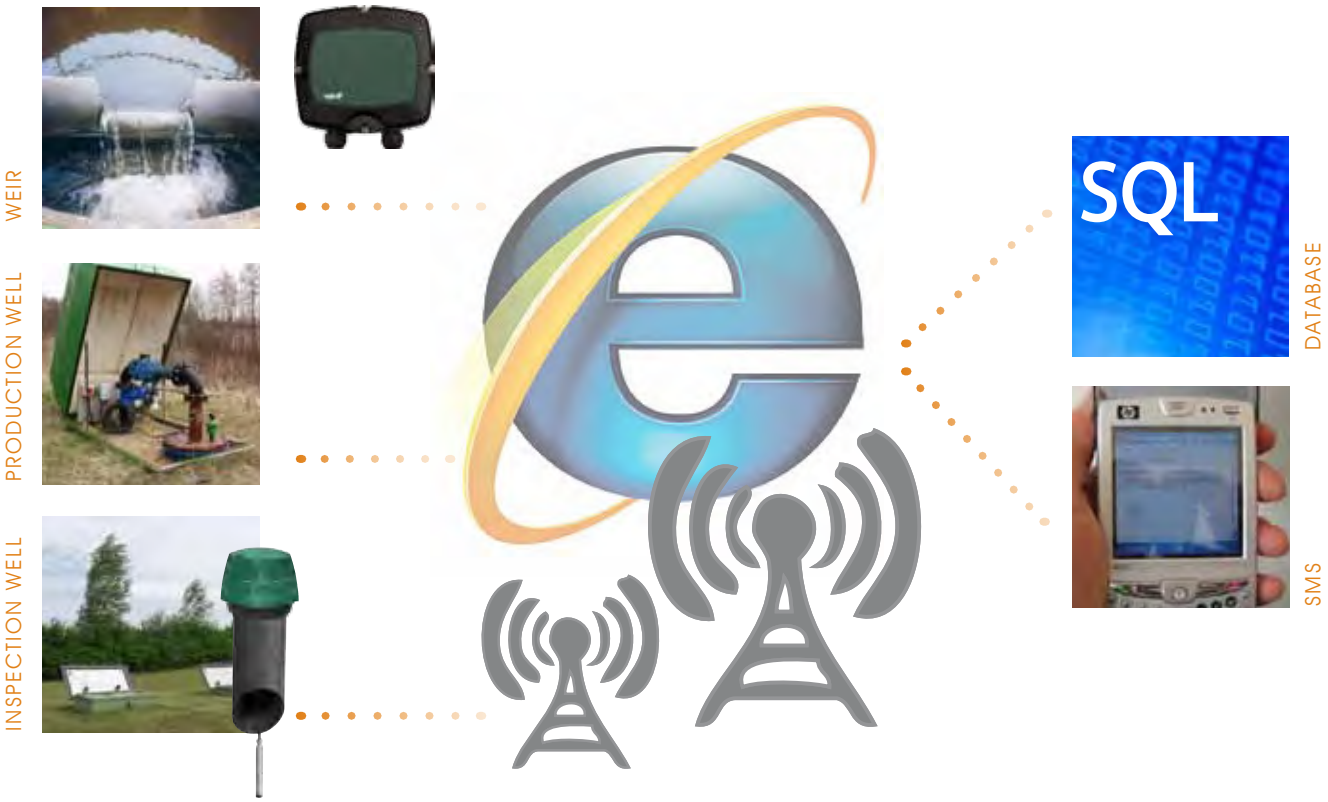
BATTERY-POWERED DATALOGGER WITH MODEM



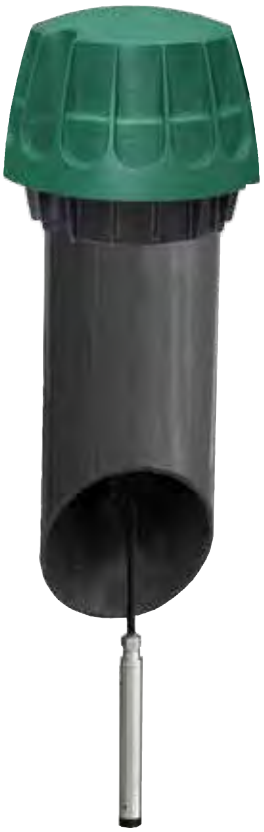
PROGRESSIVE TECHNOLOGY

Chatter® transmits datalogged water levels for drinking water and wastewater applications, groundwater at large construction sites, and levels in rivers and canals, etc. The datalogger stores events, 30,000 data points and calculates the flow across a weir.

The Chatter® is a multi-channel datalogger that transmits data to a Microsoft SQL database via the Internet using its built-in GPRS modem. Additionally, Chatter® sends SMS messages with alarms.



CHATTER® IN WATER SUPPLY SYSTEMS

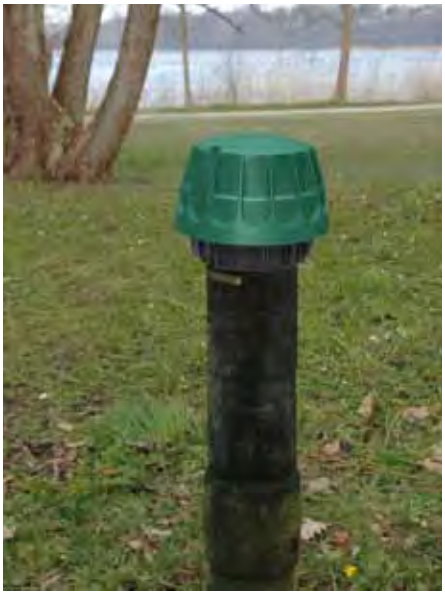


Chatter® is used in water supply systems to measure and monitor water levels in production and inspection wells. For these applications Chatter® is built into a stainless steel cylindrical housing combining data logger, modem, antenna and battery into one component for mounting in the top of a well head pipe.

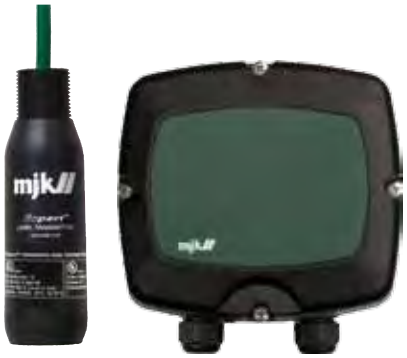
When Chatter® is not measuring nor transmitting, it is in a 'sleep' mode with minimum power consumption until it 'wakes up'. The transmission session is as short as 10-15 seconds, and you can expect 5 years of battery life, when transmission is once per day.

The Chatter® can be supplied in an IP67 polycarbonate housing for wall mounting. In this configuration, it can be battery powered or use a mains supply (AC powered).

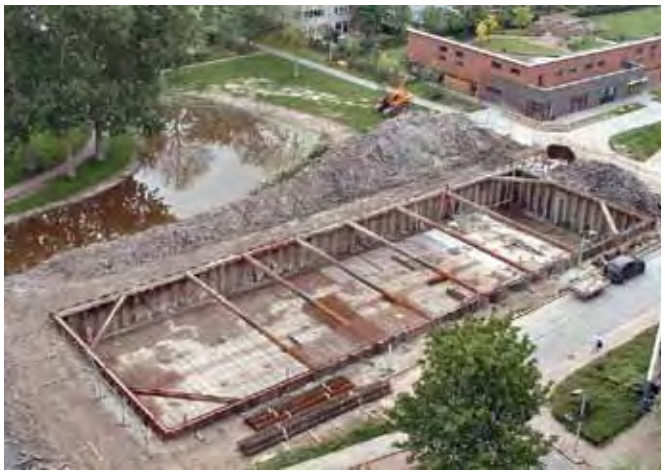
For added security, one of Chatters' digital inputs can be connected to a sensor to detect unauthorized opening of the lid on the well head housing, and Chatter® can be configured to send an alarm output with data or as an SMS text message.



CHATTER® IN THE SEWAGE SYSTEM



The 'sleeping' Chatter® activates, when water reaches a selected high level in sewers with a weir (storm flow). It measures and logs storm flow and times on short intervals, until the water falls to a selected low level. The storm flow data is transmitted by a specified time or water level.



MJK supplied software controls the Chatter's data from the GPRS modem to import into Microsoft SQL database software, making it useful for all SCADA and network simulation software. MJK's software tests the transmitted data for completeness and, if it is not, initiates retransmission during the next scheduled transmission. The software also updates the Chatter's firmware.

CHATTER® ON CONSTRUCTION SITES

Chatter® monitors the groundwater level at deep digs on construction sites, so buildings will not be damaged, if the groundwater level is not kept at a certain level.

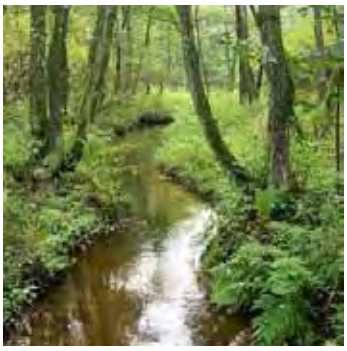
The pictured application is from a tunnel construction site in Malmö Sweden, where MJK delivered a monitoring system with 120 groundwater monitoring stations.

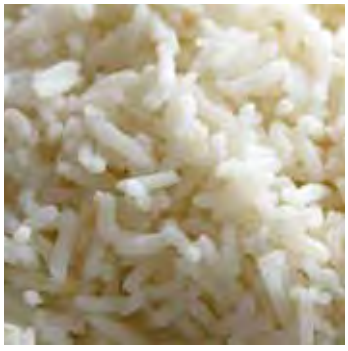
Importing Chatter's data to the SQL database simplifies measurement for control of pumps and reporting to the building owner, regulatory authorities, etc.

If the data accidentally cannot be delivered, or the level reaches a dangerous level, an SMS can be sent directly to the operator in charge of the building site.

CHATTER® FOR CONTROL OF SURFACE WATER LEVEL

In rivers, reservoirs and canals in irrigated agriculture regions Chatter® monitors levels to reduce flooding, calculate water use, and maintain water levels for optimizing water resource management and crop results.



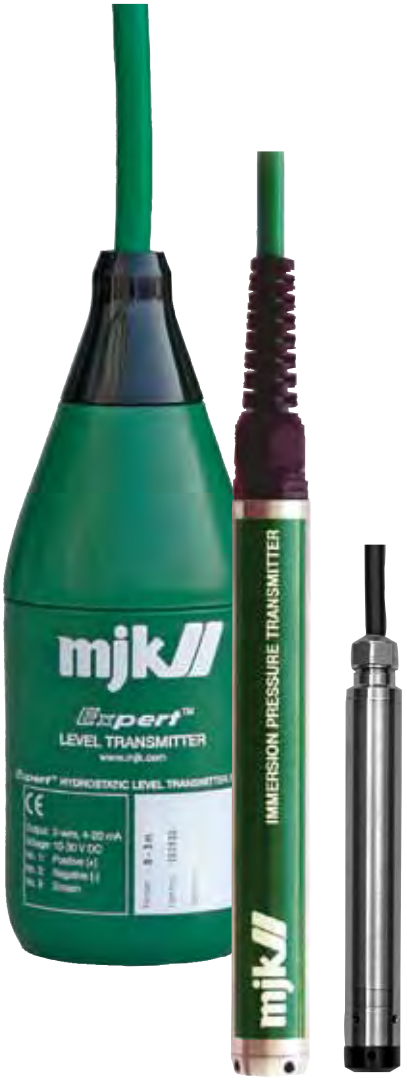


Chatter® is configured for datalogging of measued values and regularly transmits via a GSM/GPRS network to a WEB server and SQL database. Alarms will be sent to the WEB server and to mobile phones.

FLEXIBLE CONNECTIONS

With analog, digital and Modbus inputs, new and existing devices can connect to the Chatter. Chatter® supplies power to transmitters during measurements for 10 seconds (typically), thus saving power.

Using Modbus inputs avoids D/A and A/D conversion errors, connects up to four transmitters, makes installation easier, allows set-up and calibrations using a centralized PC, and extends battery life.



DIGITAL AND ANALOG PRESSURE TRANSMITTERS

MJK 700 D, 7060 D og 7070 D series pressure transmitters are supplied with the Modbus protocol. MJK provides both digital and analog pressure transmitters in the ranges 0-3 m to 0-300 m.

MJK digital pressure transmitters are characterized by:

- Solid design with acid-proof steel housing or iron reinforced plastic housings
- Steel reinforced cable with high tensile strength
- Stainless steel sensing membrane
- Modbus communication for fast measurements
- Remote adjustments of zero points and range
- The design prevents particle adhesion to the membrane
- Accuracy better than 1%

Four transmitters can be connected to the Modbus input to measure for up to four different levels. By using a Modbus input you reduce power consumption, extend the battery life, and simplify the installation. Digital pressure transmitters can be remotely calibrated from a centralized PC via communication with the Chatter® unit.

Chatter®	
Inputs	4 digital, 4 analog, and 1 digital for up to 4 digital Modbus transmitters
Voltage outputs	Controlled for supplying sensors and other connected equipment
Datalogger	30.000 time- and date stamped measurements
Clock	Real-time clock with 10 sec. resolution
Battery life	Min. 5 years under the following operating conditions: - measurement of 2 digital values from an RS-485 Modbus sensor once every 24 hours - monitoring 1 digital input configured as an alarm input - 1 call every 24 hours to the central PC
GSM / GPRS	Tri-band with support for TCP / IP communication
Antenna	Built-in / external
Housing	Compact version: Encapsulated in an IP 67 aluminium / plastic housing with built-in antenna Wall mounting: Polycarbonate field cabinet with external antenna.
Enclosure Rating	IP 67

Digital pressure transmitter	
Measuring range	0 - 3 m … 300 m WC
Temperature range	- 10 … 60 °C (14 °F ... 140 °F)
Accuracy	Better than ± 0,25 % FS @ +10 to 30 °C (50 °F ... 86 °F)
Output signal	Modbus RTU
Cable	2 × 0,5 mm² + 5 × 0,15 mm² , shielded, oil resistant PUR insulation
Enclosure Rating	IP 68, resists a static pressure equivalent to max. measuring range

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