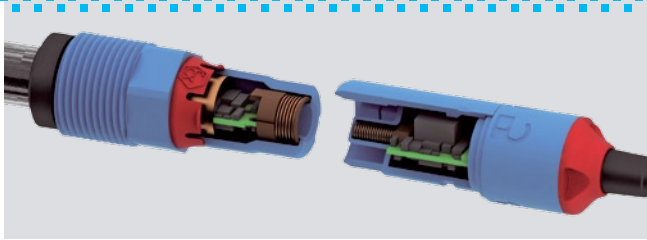
Level | Pressure | Flow | Temperature | Liquid Analysis | Registration | Systems Components | Services | Solutions

Memosens:
En route to becoming the industry standard



Joint effort for utilizing and enhancing Memosens technology in the future

Endress+Hauser and Knick have agreed to open Memosens technology, and establish and further develop a common platform for inductive, non-contact connector systems to benefit all users. Memosens is a smart sensor system for analytical measuring technology. Quality and compatibility are guaranteed by the Memosens seal of approval. Both companies are respected producers of measuring points for pH, conductivity and dissolved oxygen measurement, and enjoy a very high level of acceptance on the market. With the new move, the product portfolios of Endress+Hauser and Knick now complement each other perfectly. The alliance will result in a considerable increase in the possible applications for Memosens.

Advantages of the partnership
Customers can purchase Memosens-compatible components from independent providers of liquid analysis solutions.

MEMOSENS

Endress+Hauser
People for Process Automation

Partnerships paving the way to mutual success

The first partnership agreement was signed between Endress+Hauser and Knick, with the result that customers today can choose from several providers of sensors and devices with Memosens technology. Hamilton Bonaduz is another sensor manufacturer that will also be offering Memosens sensors.

Endress+Hauser

Endress+Hauser
With proprietary development of transmitters and sensors, Endress+Hauser is an able, professional provider of complete measuring point solutions. In the interests of its customers, the company uses open industry standards, and supports the development of such standards through its membership of specialized committees and associations. We also work together with our partners in the industry.

Knick

Knick
The partnership gives customers the opportunity to use various transmitters ranging from 2-wire to 4-wire technology. With the whole range of Memosens sensors, users can freely combine sensors and devices.

Hamilton Bonaduz
The time-tested and extremely easy-to-use Memosens electrodes are combined with the experience and diversity of the sensor manufacturer in the area of pH sensors.

HAMILTON

Outlook
The goal of the partnership is the common utilization and further enhancement of inductive connector systems based on Memosens technology (Endress+Hauser) and the future integration of the technical features of InduCon (Knick). Users benefit from a common platform for inductive connector systems. By pooling the expertise and R&D activities of the partners to the alliance, new developments will be on the market more quickly and product compatibility will be guaranteed.

Advantages of the technology
- Only system on the market with perfect galvanic isolation, inductive, non-contact data and power transmission
- Data processing in the sensor plug-in head
- Resistant to environmental influences such as moisture, corrosion and salt bridges. Even possible to plug in system under water.
- Patented bayonet lock without twisting cable for easy opening and closing
- Sensor operating life up to 40 % longer, minimum calibration cycles
- No need to connect a grounding pin or potential matching line (PML)

100,000 Memosens units delivered

Endress+Hauser sets standards worldwide

Endress+Hauser delivered its 100,000th pH electrode with Memosens technology at the end of 2008. Memosens has set the industry in motion. Thanks to numerous satisfied customers and partnerships, the innovative technology is on the way to becoming the industry standard.

Memosens has fully proven its worth in the tough everyday world of industry
Today, a world without Memosens is virtually inconceivable. When it comes to fitting out new plants, four out of five Endress+Hauser customers now decide to deploy the smart sensor technology. For almost five years, Memosens has successfully proven its worth in day-to-day operations at tens of thousands of measuring points worldwide.

In addition to digital pH measurement, Memosens technology is also already available for ORP, conductivity, oxygen and chlorine. This platform will be systematically expanded to include other liquid analysis parameters. The future of analytical measuring technology belongs to these smart, non-contact sensors.

Memosens + Liquiline: the dream team
The hardware and software of the measuring point are perfectly matched. With its exciting functions, the modular Liquiline two-wire transmitter sets new standards:

- Simple, intuitive operation
- Easy-to-use thanks to navigator
- Large graphic display with plain-text menu
- Open for all process control and asset management systems
- Optimum storage – one transmitter for all Memosens parameters
- Universal use thanks to Ex approvals applicable worldwide
- Predictive maintenance for even greater process safety

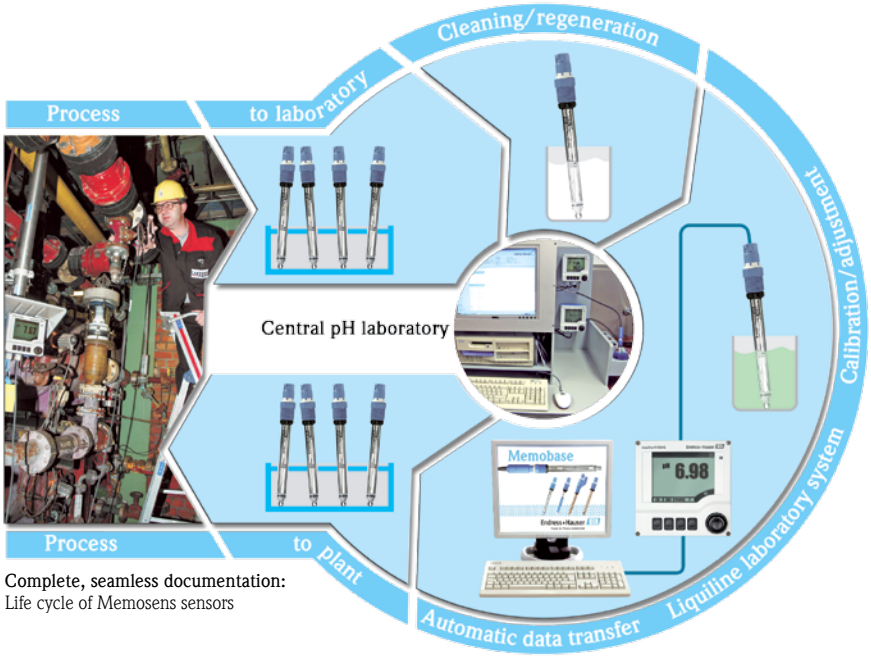
Available with either a plastic or hygienic stainless steel casing, the robust design is unique for two-wire transmitters.

When measuring digitally with the Memosens protocol, you can change the parameter quickly and easily without having to change the hardware.

Memosens and Liquiline are the perfect team for easy and reliable measurement!

Revolutionary maintenance strategies with Memobase
Memobase is a software application for the central administration and automatic documentation of all Memosens sensors directly at the PC. Convenient sensor monitoring in the laboratory with Memobase reduces your maintenance costs and allows quality management over the entire life cycle of the sensor.

The software records process, calibration and adjustment data that are specific to the measuring point and stored in the sensor, and sends these data directly to a database. As a result, the complete sensor life cycle is easily and reliably documented from commissioning to the end. Measuring systems and maintenance concepts can be analyzed and optimized based on these data.



Complete, seamless documentation:
Life cycle of Memosens sensors

Memosens saves money

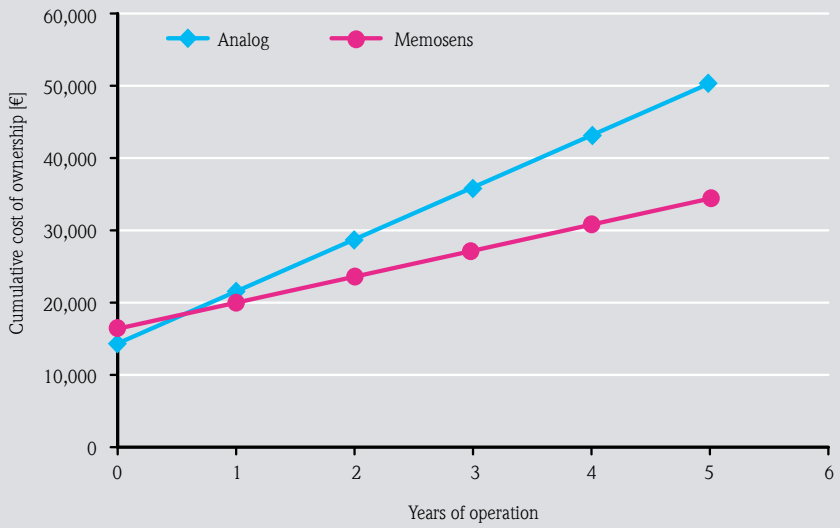
The technical advantages of Memosens sensor technology come into play particularly under heavy-duty process conditions. Mr. Werske, I&C specialist at the chemical production division of Merck KGaA in Gernsheim, cites another advantage that played a decisive role in Merck switching to Memosens sensor technology: "The possibility of simply exchanging the sensors on site and then servicing them at a central location under ideal conditions gives us such quality and cost advantages that the costs of retrofitting are more than justified."

As part of the innovative calibration and maintenance strategy, Merck relies on predictive maintenance as the operating staff simply replace the sensors on site with calibrated sensors at regular intervals. The I&C specialists then service the replaced sensors in the company's own measurement and control workshop by:

- Qualifying the condition of the sensor
- Cleaning and regenerating if necessary
- Calibrating/adjusting

Afterwards, the sensor is operational again, returned to production and used in the process.

Cost savings achieved by using Memosens



Development of cost of ownership over 5 years when purchasing 10 new measuring points and with 10 calibrations per month

How does predictive maintenance affect the operating life of the sensors?
Manfred Walter, also an I&C specialist at Merck and responsible for pH measurement, finds that "the operating life of the sensors has been extended by about 30%. Some sensors were even in operation for 6 months – the analog sensors previously used would never have lasted so long." To quantify these values, the I&C specialists used to manually keep statistics on all the data stored in the sensor. The data were read out of the transmitter and added to the statistics record. This was a very time-consuming process that was susceptible to error and resulted in high costs.

Complete documentation of the life cycle of the Memosens sensors
Today, our customers rely on the new intelligent data management for Memosens systems with Liquiline transmitters. The Memobase data management software is based on a server-enabled database and, in conjunction with the laboratory measuring system, is an essential part of the cost-saving Memosens maintenance strategy.

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