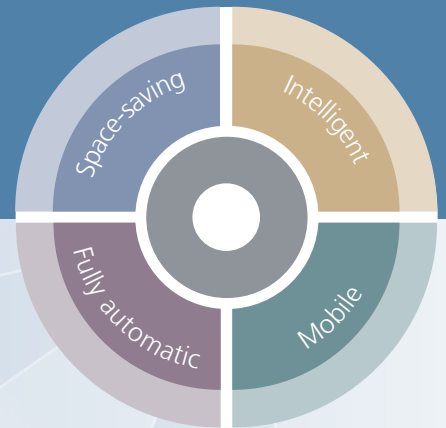


# Advanced Liquid Analysis

## Memosens@Knick

Digital sensors with inductive signal transmission:  
Interference-free, cost-saving and maintenance-optimized  
For stationary and mobile use





# No Interference

Contactless sensor coupling for reliable liquid analysis in all environments



## Inductive energy and data transmission

As a result of contactless transmission technology, the Memosens plug & play system is 100% waterproof and resistant to dirt, corrosion, salt bridges, overpressure and interference potentials. This makes it clearly superior to conventional systems. Its robust connector also makes Memosens extremely resistant to mechanical influences.

Inductive signal transmission results in perfect galvanic isolation. Even when system components or process media are insufficiently grounded or frequency converters are causing EMC interference, stable, precise measurements can still be realized. Further equipotential bonding measures such as solution ground are unnecessary.



*Measured values are digitized in the sensor and transferred to the transmitter without contacts. Alongside bi-directional signal transmission, the inductive coupling supplies power to the sensor.*

## Only 1 click...

The patented Memosens bayonet coupling can be opened and closed with only 1 click — no more twisted cables.

## Memosens@Knick:

- Inductive sensor connector without any metallic contacts
- Perfect galvanic isolation
- Cable lengths of up to 100 m possible without problems



## Rapid Amortization

Operating cost reduction  
with pre-calibrated sensors



### More effective maintenance

Qualified personnel can pre-calibrate Memosens sensors with integrated intelligence in the ideal conditions of the laboratory — under optimal, user-friendly conditions. This procedure not only benefits users — it also increases the quality of the calibration and in turn, measurement precision. On site sensor replacement is now quick and easy.

### Higher safety, even in extreme environments

Memosens technology reduces the time maintenance personnel must spend in areas that are difficult to access or potentially dangerous to a minimum, significantly increasing the level of operational safety.

The plug & play feature of Memosens makes it easy to replace a used sensor with a pre-calibrated one on site, instead of having to clean and calibrate the sensor under difficult conditions.

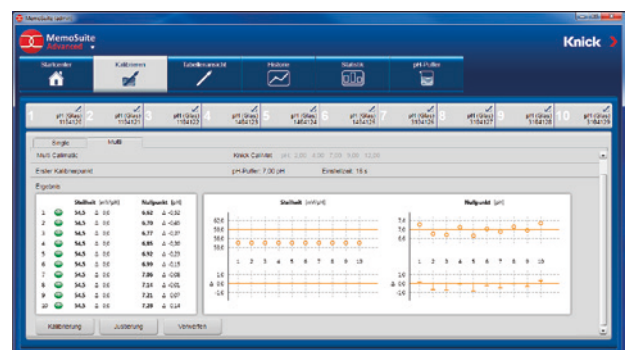
As soon as they are connected to the transmitter, Memosens sensors are automatically detected and begin measuring immediately.

### Minimum process downtime

In addition to the benefit of higher system availability, their optimal calibration conditions mean that Memosens sensors have longer service lives.

### Memosens@Knick:

- No more complicated sensor calibration on site
- Fast sensor replacement, no more costly process downtime
- Up to 40 % longer service life than conventional sensors

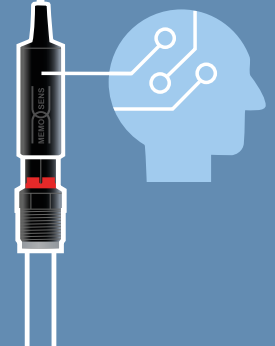


With the MemoSuite sensor management tool, up to 10 Memosens sensors can be calibrated at the same time.



# Predictive Maintenance

Reliable process management  
thanks to special intelligent diagnostics



## Efficient automatic sensor detection

As soon as the Memosens sensor is connected, the transmitter automatically detects the sensor ID with the relevant process variable and properties. Measurement can begin immediately and sensor detection delivers increased process reliability.

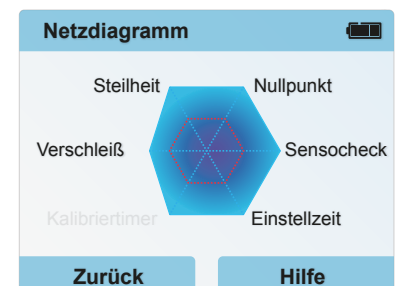
## Optimized process management

Intelligent Memosens electronics save the entire sensor life cycle alongside the process data. This facilitates intelligent diagnostics that can be used by the Protos, Stratos and Portavo transmitters from Knick and with the MemoSuite software tool developed by Knick.

Diagnostics functions such as conditions of use, sensor wear, operating time and a CIP/SIP or autoclaving counter ensure greater safety, effectiveness and reliability. A load matrix evaluates the individual wear data of the sensors and the adaptive calibration timer calculates the optimal process-dependent maintenance cycle.

## Memosens@Knick:

- **Diagnostics and sensor database documentation**
- **Graphical preparation of calibration and adjustment history**
- **Display of both absolute and relative time axes**



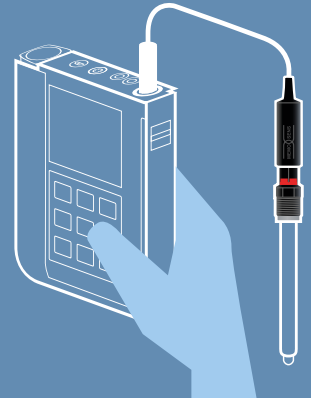
*With the clearly arranged network diagram, maintenance personnel can easily read the sensor's current state at a glance.*

# 4



## Mobile Options

Faster and more accurate diagnostics under real conditions



### Mobile Memosens transmitter

Of course users can fully take advantage of all Memosens features in the Portavo series portable meters.

Regardless of whether it's diagnostics, calibration or measurement, it is all available everywhere with Portavo. Hazardous-area applications are possible without restriction — portable, with Memosens.

### Direct control

Simply connecting the sensor directly to the portable Portavo meter makes it possible to determine whether the sensor or the transmitter caused the error. With these compact transmitters, the sensors and their integrated temperature detectors can be calibrated on site.

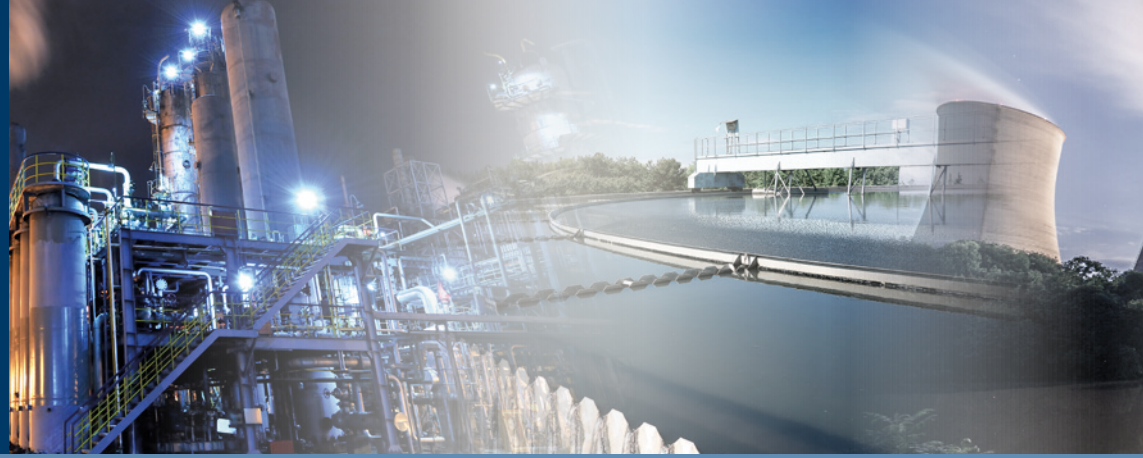
MemoView enables measuring points to be inductively queried online during ongoing operation — without a display. The induction unit is simply plugged onto the Memosens sensor connector and all the relevant process data on the Portavo meter can be displayed, saved and evaluated later in the laboratory.



### Memosens@Knick:

- Flexible calibration and control options
- Guaranteed compliance with all SOP specifications for documenting calibration and measurement data
- USB interface for printing calibration reports
- Seamless integration into asset management





# The Range of Expertise

From sensor to transmitter, Memosens technology from Knick guarantees you the highest level of reliability and safety.

**Memosens@Knick:  
Designed for a range  
of applications**

- **Chemistry:**  
Aggressive media,  
precipitation reactions,  
electroplating ...
- **Pharmaceuticals:**  
CIP/SIP processes,  
fermentation,  
ultra pure water ...
- **Food & beverage:**  
Sugar production,  
breweries, dairy  
products ...
- **Water:**  
Potable water,  
aquaculture,  
treatment plants ...
- **Energy:**  
Cooling towers,  
heat exchangers,  
steam generators ...

Memosens solutions from Knick offer the advantages of an open technology with the added value of unique solutions — even for complex applications.

Meters, fully automated retractable fittings plus mobile and space-saving solutions pave the way for extra advantages and greater flexibility for process adaptation:

Memosens@Knick

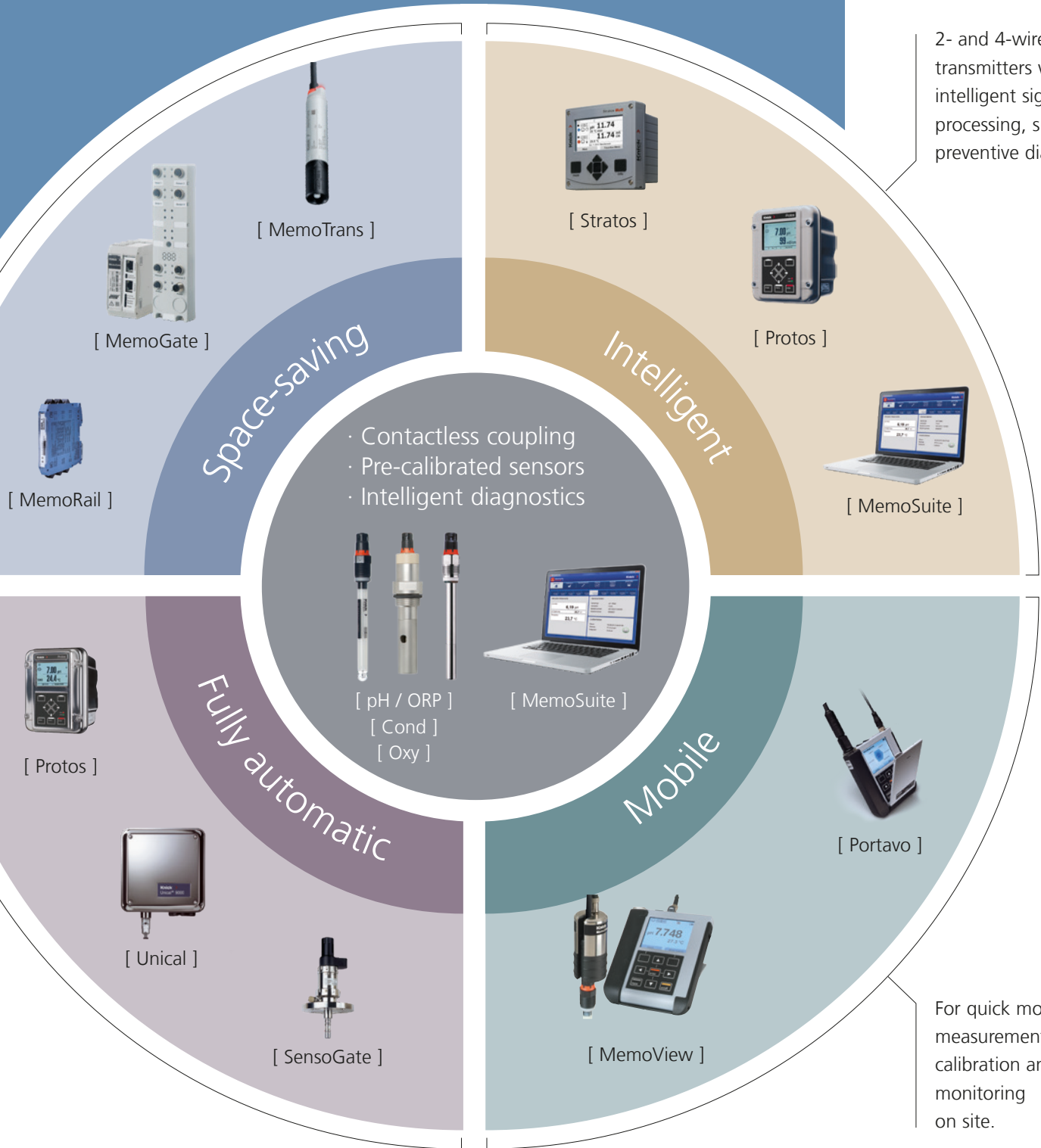
For use in control cabinets and direct connection to affordable multi-channel systems.

Flexible adaptation to the specific measuring point; minimum operating and maintenance effort; maximum availability, optimum process control.





2- and 4-wire transmitters with intelligent signal processing, such as preventive diagnostics.

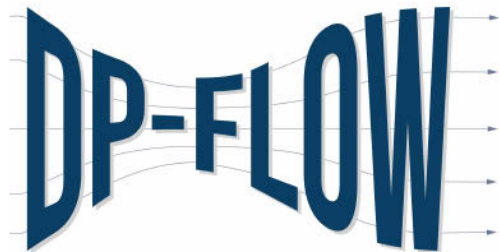


For quick mobile measurement, calibration and monitoring on site.

Everything else you want  
to know about interference-  
free pH, ORP, conductivity  
and oxygen measurement ...



- Interface Technology
- Indicators
- Industrial Transmitters**
- Portables
- Laboratory Meters
- Sensors
- Fittings



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