

Endress+Hauser

Memosens

the first digital pH sensor opens a new era in pH measurement



In a time when it is more difficult to surprise the market with an outstanding improvement, Endress+Hauser have managed to do a leap forward.

With the release of the new digital pH electrode **Memosens**, Endress+Hauser have opened a new era in pH measurement with the first:

- Digital pH measurement
- Integrated memory in the electrode for storage of calibration data
- Contact free sensor connection by inductive coupling
- Error message if electrode disconnected
- Auto sensor recognition

Fast Sensor change

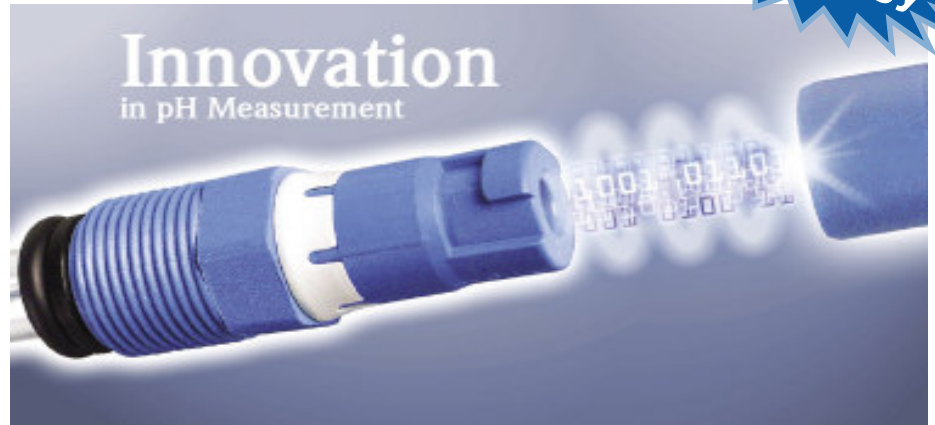
According to Murphy's law pH sensors will only fail over the weekend, when it is raining or snowing and when the shift is about to finish.

For the first time it is now possible to pre-calibrate pH sensors under optimum conditions, in the laboratory, and have them ready for installation when required.

Further, the need to rewire from the sensor to the junction box with great care, to minimise contact problems, is no longer necessary.

Rather, you can change a **Memosens** pH sensor in a matter of seconds and keep measuring point downtime to an absolute minimum.

In addition, when a new electrode is mounted, calibration data is automatically transferred to the transmitter and used to calculate the current pH value.



Problems eliminated

Another key feature of **Memosens** is the non-contact inductive electrical connection between the electrode and cable.

In conventional pH systems, low currents and very high sensor internal resistances require a high impedance connection to the transmitter. The result is that moisture in the connection can change the measured value and may even result in measurement failure.



The non-contact inductive electrical connection of **Memosens** eliminates this problem as the connection is immune to contamination and moisture - the two key problems of traditional connections.

Apart from the elimination of measuring errors, the new bayonet coupling and inductive connection system enables quick and easy sensor changes in the field without worry - replacing a sensor in wet or dirty conditions is no longer an issue.

Memosens eliminates problems based on:

- Corrosion
- Contacting problems
- Salt bridges
- Moisture
- Leakages
- High impedance connections
- Ground loops

Other outstanding features

If the digital signal flow between sensor and transmitter is interrupted an error message is displayed. There is no chance of a false reading due to a broken cable or connection.

In addition to calibration data, **Memosens** pH sensors store information such as total operating hours and hours of operation at max/min pH values and temperatures. Invaluable information for maintenance planning.

The cost of cabling from a **Memosens** digital pH sensor is lowered due to the use of standard data cable instead of expensive pH cable.

All these features at no higher cost than a conventional system.

New EMC Price Catalogue

EMC's new 2004/5 Price Catalogue was mailed last month to all EMC Newsletter recipients.

The Catalogue is an essential resource for all your process instrumentation and factory automation requirements including:

**Flow, Level, Pressure, Temperature
Analytical, Weighing, Recording
PLCs, Operator Panels
Sensors, Encoders, Counters
Measurement, Monitoring, etc.**

If you did not receive your copy, or would like additional copies, please circle number **1102** on the Reader Enquiry form.

Alternatively, phone Russell Mason (ddi 09-415 5141) or email your request to russell.mason@emc.co.nz.



For more information on MemoSens, please circle Enquiry No:

1101

Alternatively, contact Mark Armstrong to discuss your applications

Leuze electronic 25 Series

a new range of compact and economical Photoelectric Sensors



The new Leuze 25 Series complements the extensive range of Photoelectric Sensors available from EMC.

This compact sensor series measures only 36 x 27 x 15mm and has an IP67 rated plastic housing.

The 25 Series incorporates a variety of models within the standard formats of Through-beam, Retro-reflective and Diffuse types.

Standard Features

Models in stock feature 10-30Vdc supply, push-pull switching outputs (npn/pnp), light / dark switching and M12 plug connection. Electrical connection is also available as an option via M8 plug or 2 metre cable.

A mounting bracket is supplied as standard with all models and a TKS30 x 50 reflector is included with retro-reflective types.

Special versions

A special retro-reflective model enables safe detection of transparent media, such as clear glass or PE bottles, and teachable background suppression is available with a special diffuse version.



For more information on the 25 Series, please circle Enquiry No:

1103

Alternatively, contact Steve Watkins or Russell Mason for assistance

Typical Models

- **PRK 25/66-S12 Set**
Retro-reflective, polarised, range 6m
PNP/NPN, M12 plug
Includes Bracket and 30x50 Reflector
Price Only \$165.00 + GST
- **RTR 25/66-700-S12 Set**
Diffuse, range 800mm
PNP/NPN, M12 plug
Includes Mounting Bracket
Price Only \$177.00 + GST
- **HRTR 25/66-300-S12 Set**
Diffuse with Background Suppression,
Range 400mm, PNP/NPN, M12 plug
Includes Mounting Bracket
Price Only \$177.00 + GST

BALLUFF

BIL Magneto-Inductive Position Sensors



wear-free linear position devices for ranges 60mm and 160mm

The latest innovation from Balluff GmbH in Germany is the compact and rugged BIL Magneto-Inductive Position Sensor.

Ideal for control and feedback tasks, the BIL provides non-contacting and absolute position using a passive position magnet for ranges up to 60mm and 160mm.

The BIL is available with analogue 0-10V or 4-20mA outputs, and provides high linearity over the linear range of $\leq \pm 1\%$ and repeat accuracy of $\leq \pm 0.1\%$.

The robust design and fully potted sensor and electronics, ensures the BIL is suitable for industrial environments with high resistance to shock, vibration and moisture. It also features high temperature stability.

A choice of magnet; standard 10 \varnothing x 10mm hard ferrite or 26 x 14 x 14mm PA 6.6-GF30 enables correct selection for the application. In addition, existing permanent magnets can often be used (such as those found in pneumatic cylinders).

Reliable

- Non-contact
- Wear-free
- Suitable for harsh environments, with fully potted sensor and electronics

Innovative

- New sensing principle
- Latest manufacturing technology

Compact

- Integrated processing electronics, no separate box required
- Housing dimensions 15 x 15mm

Precise

- High repeatability
- High linearity
- High temperature stability

Typical Applications

- Robotics/Handling
- Clamping cylinders
- Packaging
- Process industries



Balluff BIL Magneto-Inductive Position Sensors

For more information on the Balluff BIL, please circle Enquiry No:

1104

Alternatively, Howard Berry will be pleased to discuss your applications

Endress+Hauser

Highlights 2004

your guide to new instrumentation and technology for process automation

Endress+Hauser have released a 32 page publication entitled 'Highlights 2004'.

The publication, pictured right, features a whole series of new Endress+Hauser products and services released during 2004 that strongly affirms E+H's commitment to research and development and their leadership in the field of process automation.

New developments are included from all E+H product groups such as Flow, Level, Pressure, Temperature and Analysis. Each item includes a description, application information, features and an extract of technical data.

Your copy is available on request simply by circling number **1105** and returning the Reader Enquiry Form, or by contacting steve.watkins@emc.co.nz or phone ddi 09-415 1755.

To discuss most Endress+Hauser instruments or their application your best contacts at EMC are Chris Gailer or Howard Berry. Alternatively, Mark Armstrong is our Product Manager for Analytical instrumentation.



E+H Level Instrumentation featured in "Highlights 2004"



Prosonic M FMU42 Ultrasonic level measurement

Compact 2-wire / 4-wire transmitter for aggressive liquids such as acids and alkalis. Range up to 10m

Enquiry No: 1106

Prosonic S FMU90 / FDU91-96 Ultrasonic level measurement

Separate transmitter and sensors for rugged applications in bulk solids or liquids with up to 2 sensors. Range up to 70m

Enquiry No: 1107



Micropilot M FMR250 Radar level measurement

Reliable non-contact radar measurement in bulk solids such as cement, raw mix, lime, clinker, cereals, animal feed, etc.

Range up to 60m. Temperature to 200°C

Enquiry No: 1108

Levelflex M FMP45 Guided Radar level measurement

Continuous level measurement for liquids - ideal for use in bypasses or displacement chambers. Temperatures -200°C to +400°C.

- Rod / coax probes up to 4m
- Rope probes up to 35m

Enquiry No: 1109



Gammapilot M FMG60 Radiometric (Gamma) transmitter

Designed for extreme process conditions with measurement through the vessel wall.

- Level limit detection
- Level measurement
- Density measurement
- Interface measurement

Enquiry No: 1110

Highlights 2004 - Summary

- Continuous Level measurement:
 - Ultrasonic
 - Radar
 - Guided Radar
- Radiometric non-contact measurement of density, interface and limit level
- Level:
 - WHG Tool software for selection and configuration of overflow protection systems
- Pressure measurement:
 - highest process requirements
- Differential Pressure measurement:
 - pressure, level and flow
- Pressure - level limit detection
- Temperature switch:
 - display and control of process temperature
- Temperature measurement:
 - transmitters and field transmitters
- Flow measurement:
 - vortex
 - mass, coriolis
- Digital communication with Fieldbus technology
- Liquid Analysis:
 - digital combined electrode
 - glass and non-glass electrodes
 - sampler system
- Communication and software:
 - operation, evaluation, visualisation and monitoring
- Asset life cycle management system
- Instrument management solutions for optimising processes and product quality
- Complete solutions for process automation
- Configuration and asset management software

