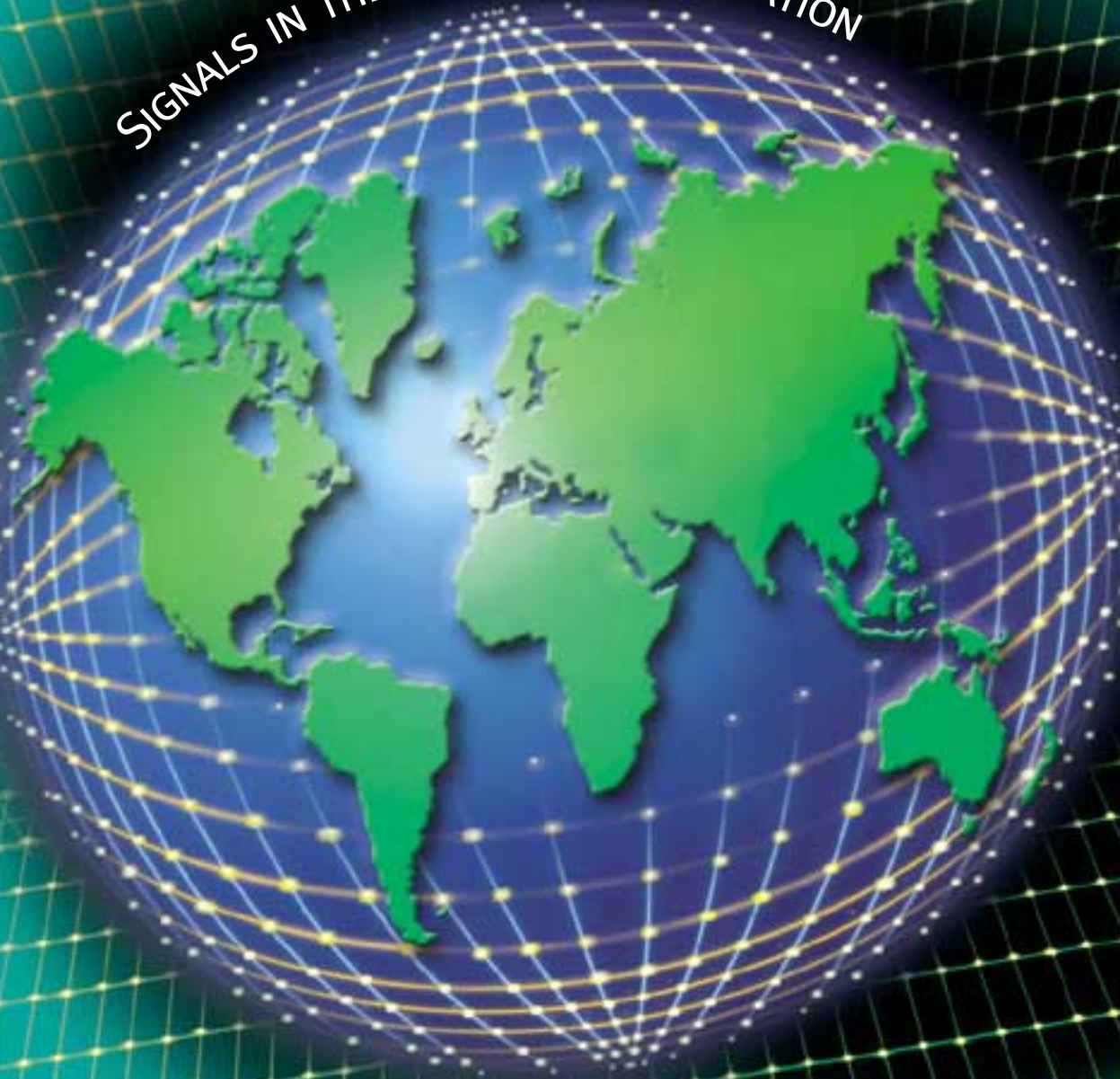


# AUTOMATION

SIGNALS IN THE WORLD OF AUTOMATION





# MISSION

# GROWTH BY MEANS OF INNOVATION AND

## ACQUISITION

Our market has matured! Automation technology is by no means one of the icons of the "old economy," but it is certainly no longer one of the imaginative stories of the "new market." Due to increased globalization pressures, automation technology is positioned at the beginning of a maturing and consolidating process that will force market participants into growth and more focus.

Pepperl+Fuchs is attempting to pioneer the use of this pressure for dynamic business development. Within the central core competencies – electronic components for automation technology in the divisions of factory and process automation – Pepperl+Fuchs has therefore considerably accelerated growth by means of innovations and acquisitions over the last two years, and it is planning to employ more than 2900 people worldwide in the year 2001. A disproportionate growth in sales to more than DM 520 million counters this clear increase in the number of employees. In the coming months, the integration of VISOLUX, Honeywell's MICROSWITCH sensor division and ELCON Instruments will be completed, and Pepperl+Fuchs will again be a good deal closer to our goal of being the price and technology leader in our global markets.

Join us!

**Mannheim, April 2001**

Management of the Pepperl+Fuchs Group



**Dr. Peter Adolphs**

Our long-term efforts of getting a foothold in the area of photoelectric sensors for factory automation have been successfully accelerated through the acquisition of VISOLUX. The takeover of inductive and photoelectric MICROSWITCH sensors from

Honeywell further underlines these ambitious goals in an important market for us – the American market.

**Michael Fuchs**

In markets where average growth is expected, increasing sales by corporate purchases makes sense. A healthy equity capital structure considerably eases not only the acquisition but also the subsequent integration.



**Dr. Gunther Kegel**

With the acquisition of ELCON Instruments, the process automation division was able to develop a main focus not only in the important Mediterranean trading area. Beyond this, the ELCON product portfolio complements the innovation strategy

of remote I/O systems and field bus technology almost perfectly.

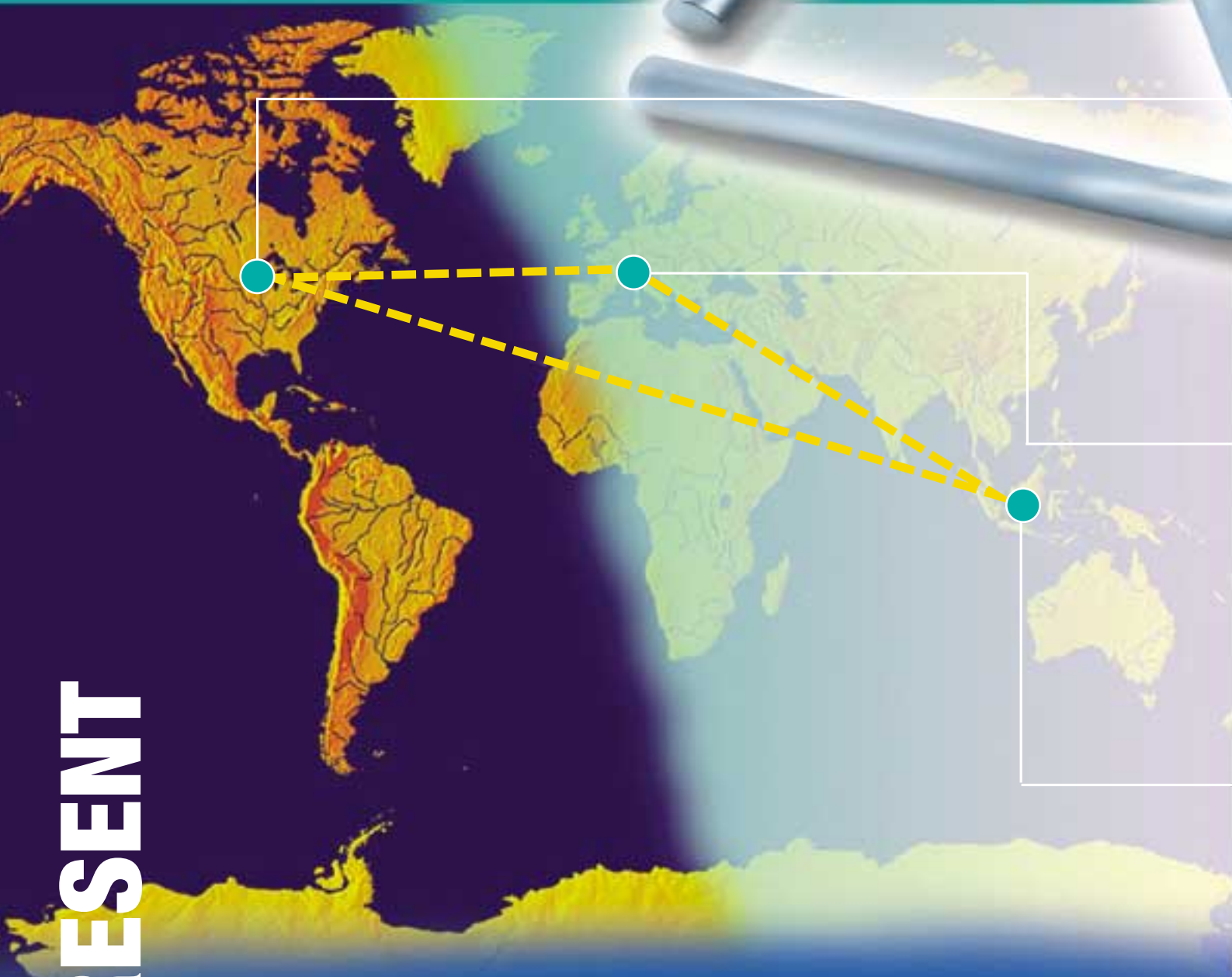
**Claus Michael**

Our multinational customers expect our global presence in every trading area. Expanding our sales network is only possible economically on the basis of above-average increases in sales in all of these trading areas.



**Is the global world market really so global?**

In actuality, probably not. The spatial, cultural and historical dimensions continue to result in demarcated economic areas. The vast majority of the flow of goods is pictured here. Our task is to meet the needs of this situation with adequate structures; the triangle concept is the goal-oriented approach to a solution; and corporate culture is the incentive for harmony.



**PRESENT**

# IN HARMONY – THE PEPPERL+FUCHS TRIANGLE



## Headquarters for the Americas

- Founding year 1983
- Over 220 employees
- R & D, Production, Sales



## Worldwide Headquarters for Group

- Founding year 1945
- Over 1000 employees
- R & D, Production, Sales



## Headquarters for Australasia

- Founding year 1979
- Over 600 employees
- R & D, Production, Sales

# COMPETENT

Tuttlingen



Berlin



Mannheim



Italy



Hungary



Indonesia



Singapore



USA



Connect all 9 points by drawing 4 straight lines without lifting your pencil.

# CONCENTRATION AND DISTRIBUTION – DISTRIBUTED UNITY

## Centers of competence just where they're needed

Know-how, expert competence and highly motivated employees can be found the world over. It would be inefficient to not make use of this potential. In the sense of economic utilization of all available resources, we have concentrated definitive task areas into centers of competence. They are responsible not only for worldwide control and further development, but also so that all relevant information is equally available at all locations.

## The “Newbies” on the team

The youngest and yet most important locations for each respective division are VISOLUX in Berlin, Germany and ELCON in Mezzago, Italy. We acquired both companies in 2000, and within the short period of only 9 months integrated them into the Group. This was only possible due to our open corporate culture based on partnership, as it has been lived out by us for decades.



**VISOLUX**, in the “factory automation” division, stands as the strong brand in the product area of optical sensors for safety technology, standard and special sensors and for the know-how in the area of door, gate and elevator monitoring systems.



**ELCON**, in the “process automation” division, marvelously complements the portfolio of intrinsically safe isolator modules, remote I/O modules and field bus systems by means of the realization of an assembly concept of circuit-protecting modules on motherboards.



**COMPETENT**

# WE WANT TO FILL YOU WITH ENTHUSIASM

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## **Products, consulting, solutions, service and more...**

...are what we have to offer in order to enthuse you, our customers, business partners, employees...

This is an ambitious goal that we can achieve only by means of an integrated approach. Even if we invest an above-average percentage of our total turnover in research and development, this is only one component on the way to our goal. Further necessary elements include promoting creative potential in all areas, securing a high level of qualification by constant further qualification and thereby consciously promoting talents and transferring responsibility at an early stage.

In the further qualification of our employees, we take into equal consideration not only the methodical but also the technical and social components.

As an owner-driven, medium-sized company, we make use of short decision-making procedures. We foster and encourage a culture where "thinking for oneself" is not only desired, but rather where "thinking outside the box" is even allowed.

## **The company you can touch**

Where could we better prove that we mean what we say than at a leading trade show, such as the Hanover trade show Industry. Here on the trading floor of international marketplaces, we are seeking dialogue with customers and business partners, with representatives from the press and media, with politics and science and the interested public. We intend to take advantage of this opportunity with a competent all-inclusive presentation.

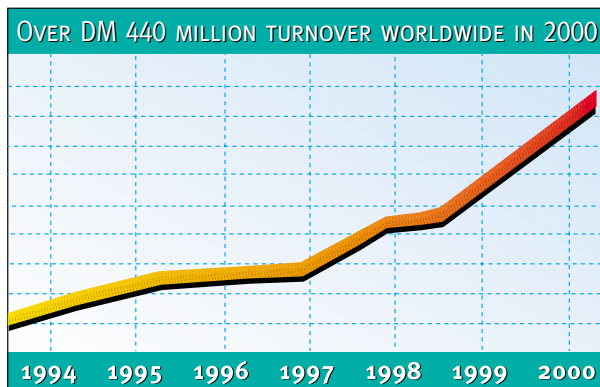
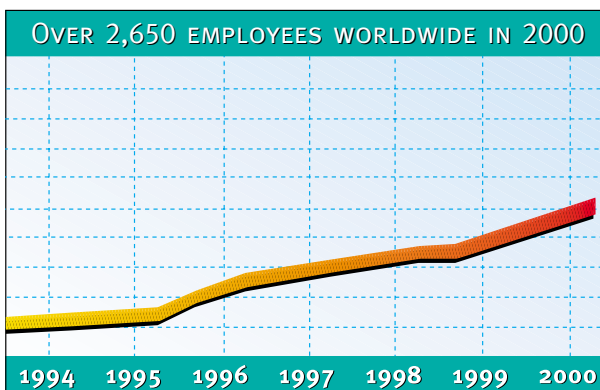
## **Training – a surplus in know-how**

Further qualification is not only a task we set for ourselves internally, we also want our customers and partners to share in our know-how. With the Pepperl+Fuchs Kolleg, we have created an institution that translates existing know-how into seminars appropriate for the target group. Competent and experienced trainers are available in-house and on location to lead the seminars.

TRANSPARENT



## CLEAR AND EXPLICIT!



### We talk with one another

Even though the electronic exchange of information plays an important role in today's world, it does not replace personal dialogue – neither internally nor externally. Ideas develop in a fair and openly held dialogue, and opportunities to discover and make use of the “weak signals” of future developments result.

### Information or data cemetery?

Granted, making this differentiation is not always easy or even unambiguous. The utilization of appropriate communications systems and management tools helps considerably in filtering out relevant information and making it available in a timely fashion to the correct recipient. Internationally connected computer networks, ERP and data warehouse systems, an Intranet and the Internet are the tools of information technology; our communications culture is the psychological prerequisite for the solution of problems of differentiation.

### International personnel development on a multicultural basis

Targeted growth goals place special demands on the qualifications of employees and management. Cultural differences should not be covered up but rather used in a goal-directed manner. The concept of “centers of competence” helps to develop specific strengths and thereby encourages efficiency within the entire Group.

# FACTORY AUTOMATION





## WELL POSITIONED –

### BRANDS FOR MARKETS



#### Strong brands don't just fall in our laps!

Strong, international brands need a long time to develop their brand personality and to create the necessary trust. The umbrella brand name “Pepperl+Fuchs” has earned this trust through innovation, reliability and high product quality. Internationally recognized product brands, such as VariKont and Ident, have developed under it. As part of our efforts in growth, two brands with tradition but new to us were added in 2000: VISOLUX and Micro Switch.



#### A complete muddle or clear brand images?

A product and brand portfolio that does not overlap is a basic prerequisite for clear brand images and an efficient brand policy. The new brands with tradition adapt themselves seamlessly into the performance spectrum of factory automation. Forward-looking company policy and entrepreneurial decision-making power in the “propitious moment” have made this possible.

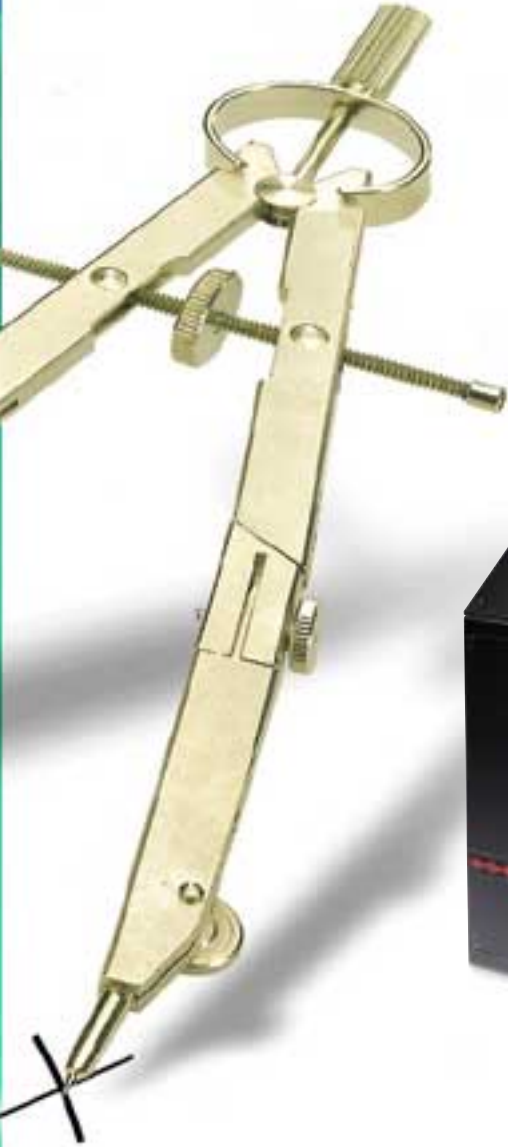
For our customers this means:  
The largest selection of industrial sensors worldwide!

# FACTORY AUTOMATION





## PRODUCT AND APPLICATION KNOWLEDGE – THE RIGHT APPROACH TO A SOLUTION



### A product seldom comes alone...

...many sensors don't either! The application determines the product and the right choice therefore requires in-depth application know-how. A great many of our products only came about by virtue of this symbiotic relationship of product and application knowledge in close cooperation with our customers.

Ultrasonic double sheet control for use in the printing and paper industry



Inductive sensor with two sensor elements for incorporation into hydraulic clamps for mechanical engineering/assembly technology



OptoSorter for reliable contour identification, i.e. in mechanical engineering/handling machines



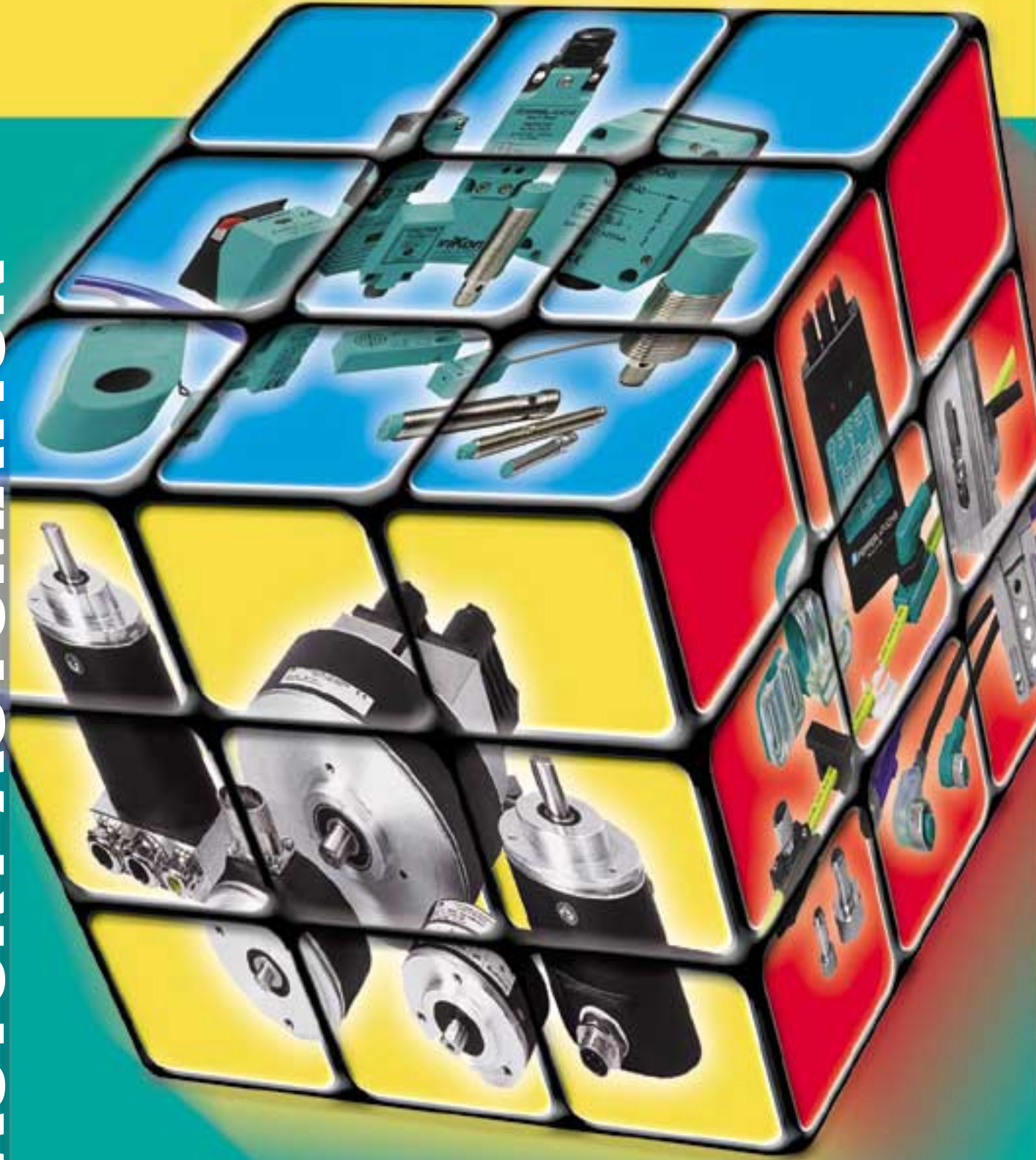
### Identification service – identification systems improve efficiency

Automation solutions can scarcely be imagined without identification systems, especially when concatenated partial processes are required. For these tasks, we are offering the market a large-scale assortment that is suitable to the application with the most diverse technical variations.

The inductive identification system, IDENT-I System P with data medium and read head



# FACTORY AUTOMATION





## THE RIGHT TURN...

### ...or the game without limits.

As amusing as playing with a Rubik's Cube may be, the right choice of automation components from the wealth of offered alternatives must be quick and correct. We want this task to be a choice without torment for our customers since the product palette of inductive and capacitive sensors, the rotary encoder, the counter and their accessories comprise more than 7,000 standard products and product variations.

The tools for making choices are of course clearly structured product catalogues and data sheets, not to mention electronic information on CD-ROM or the product database accessible on the Internet. Competent advisors in the office or in the field complement these possibilities on a personal level.



Lufthansa Cargo Center,  
conveying line



Electric monorail  
Automobile industry



Rotary encoders in  
conveying technology

# PROCESS AUTOMATION



**pf** PEPPERL+FUCHS  
**ELCON**



## CONSOLIDATING OUR TOP RANKING!



### Becoming the market leader in explosion protection

doesn't happen overnight. In 1968, we already made the first intrinsically safe isolation switching amplifier available to our customers. That means more than 30 years of experience are invested in the familiar as well as in new products. Reliability in function and in-depth application know-how combined with the creativity and commitment of our employees were the basis for our success up to now and will continue to be.

### Stages to the top

The first isolation amplifier with intrinsically safe control circuits is developed in 1957.

The first Ex-i isolation amplifier comes to market in 1968



The system with which Pepperl+Fuchs achieves a breakthrough – WE 74 – appears in 1974.

The K-system is positioned in the market in 1990 and supersedes the successful WE 77 concept.

The HART-Multiplexer achieves market maturity in 1995.

The Remote-Process-Interface (RPI) for zone 2 follows in 1996.



Already in 1998, major customers utilize the “intrinsically safe Remote-Process-Interface (IS-RPI)” for zone 1.



The segment coupler for Profibus PA is introduced at INTERKAMA 1999.

In the new millennium: Our position as supplier of field bus systems is secured.

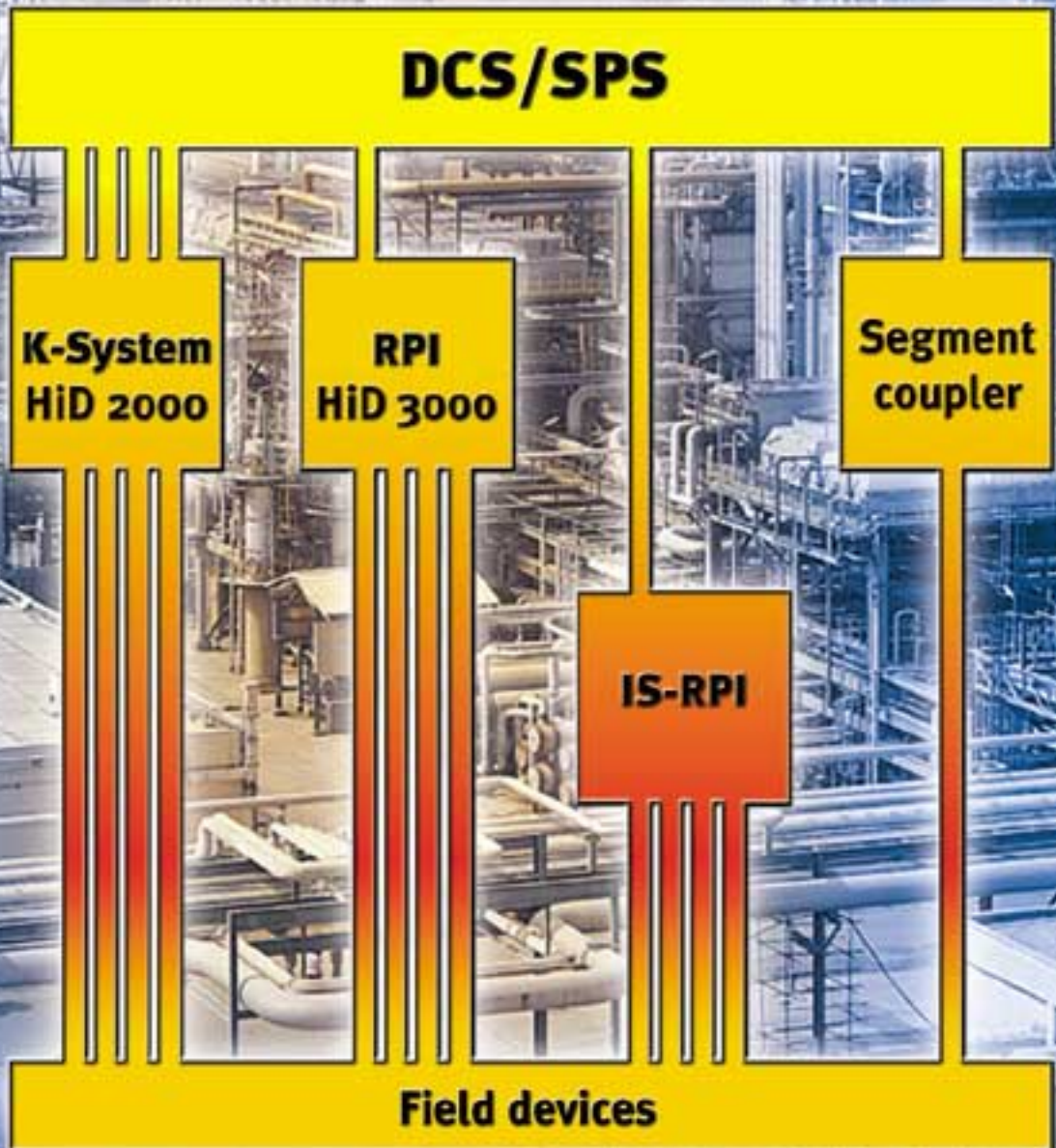
### What can you expect from a world market leader?

Do you value a strong partnership that you can build on tomorrow and beyond? For us that means consolidating this top ranking now that we've achieved it and expanding on it. With the integration of Elcon Instruments into the Pepperl+Fuchs Group, an important further step has been taken.





# PROCESS AUTOMATION





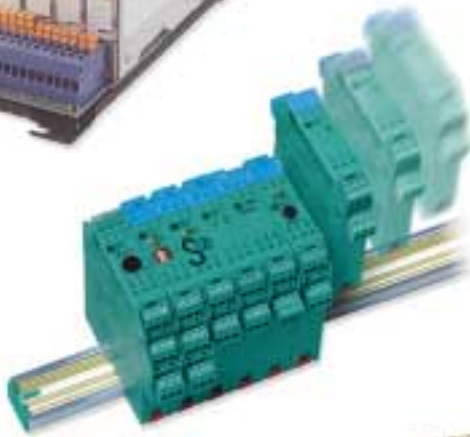
# INSTRUMENTATION FROM THE VERY BEGINNING!

The phase of “point to point” wired instrumentation in the process industry, from the early Ex-i isolation amplifiers to the first solutions, partially working with bus technologies, lasted more than two decades. Pepperl+Fuchs was there from the beginning and was also one of those taking the lead early on in the international development of field bus systems. Today, with our products we are offering the entire spectrum of instrumentation and connectors for intrinsically safe signals.



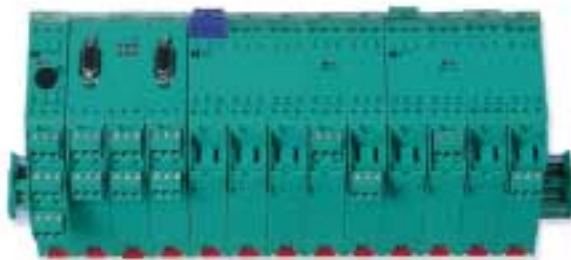
## Point to point

For the classic instrumentation “point to point” there are two fundamentally different systems available: The K-system for assembly on the DIN-rail and the “motherboard solution” with plug-in modules on a motherboard (ELCON).



## Point to bus

The “point to bus” device groups are equipped for the special demands of explosion protection in zones 1 and 2. The Remote Process Interface (RPI) and HiD 3000 systems are suitable for use in zone 2; the IS-RPI system is suitable for direct installation in zone 1.



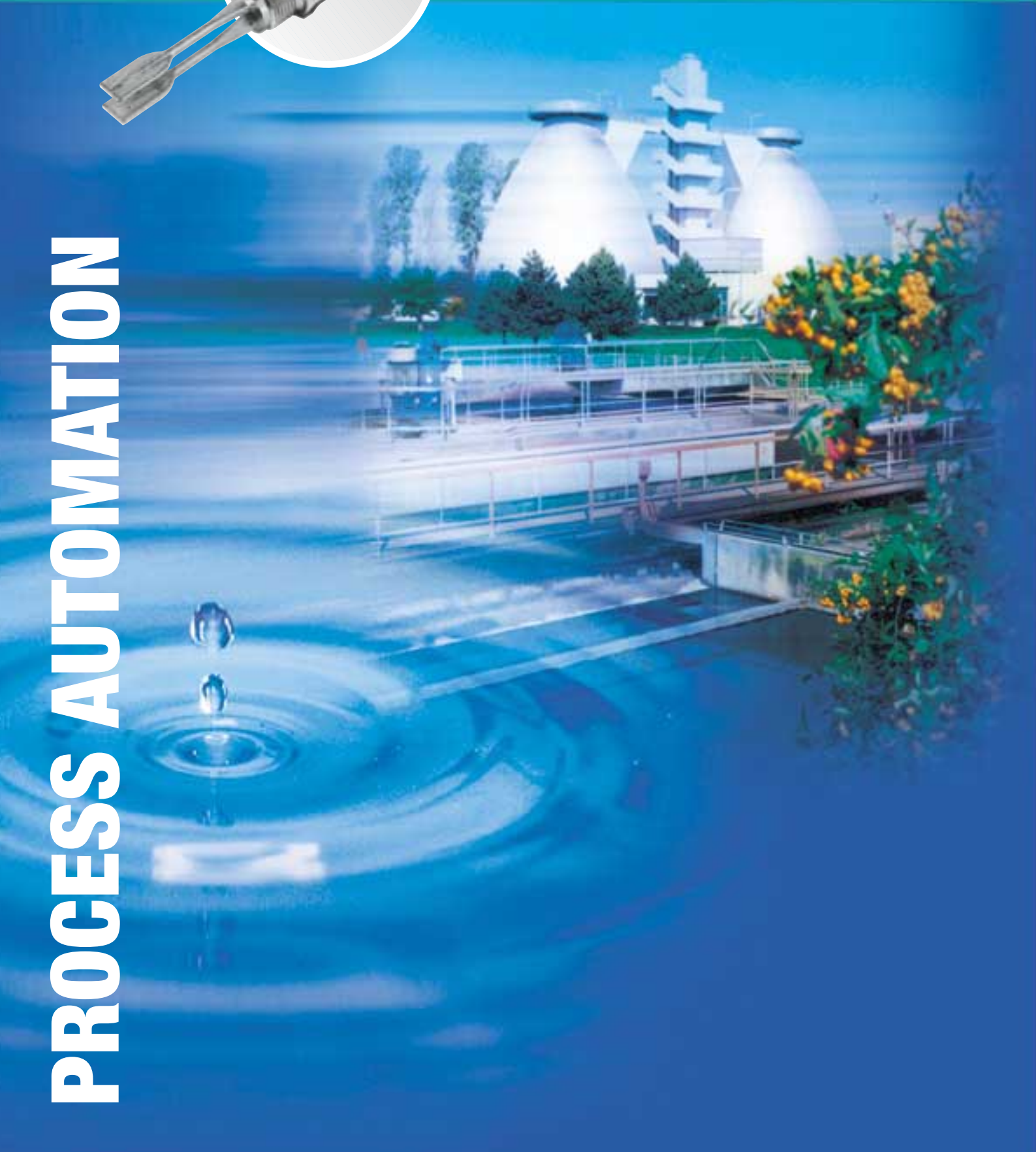
## Bus to bus

Intrinsically safe field busses, such as Profibus or Field bus, need appropriate junction module locations for the safe transfer and adaptation of signals from safe areas into explosion-endangered areas. The segment coupler from Pepperl+Fuchs connects these worlds safely and reliably.

The vibrating fork principle is especially appropriate for limit level measurement in the most diverse media. The design of the vibrating fork is then adapted to the medium to be detected.



# PROCESS AUTOMATION





## AT A HIGH LEVEL



### Peaks follow troughs, troughs follow peaks

The fluid level in containers, tanks, silos, basins etc. is a constant “up and down.” The exact fluid level measurement, whether as limit level detection or as continuous measurement, is a task for our fluid level sensors.

Whether in the chemical and petrochemical industries, during the extraction of sand, stone and earth, or in industrial and municipal wastewater treatment works, Pepperl+Fuchs fluid level sensors are in use everywhere. It is our goal to further expand this large-scale product spectrum – both in quantity and in quality.

**Exemplary** for continuous fluid level measurement – the physical principle of the “guided microwave” is implemented in various ways in the product series “Pulscon.”

The **easiest** alternative to detect fluid limit levels is provided with the float principle.



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