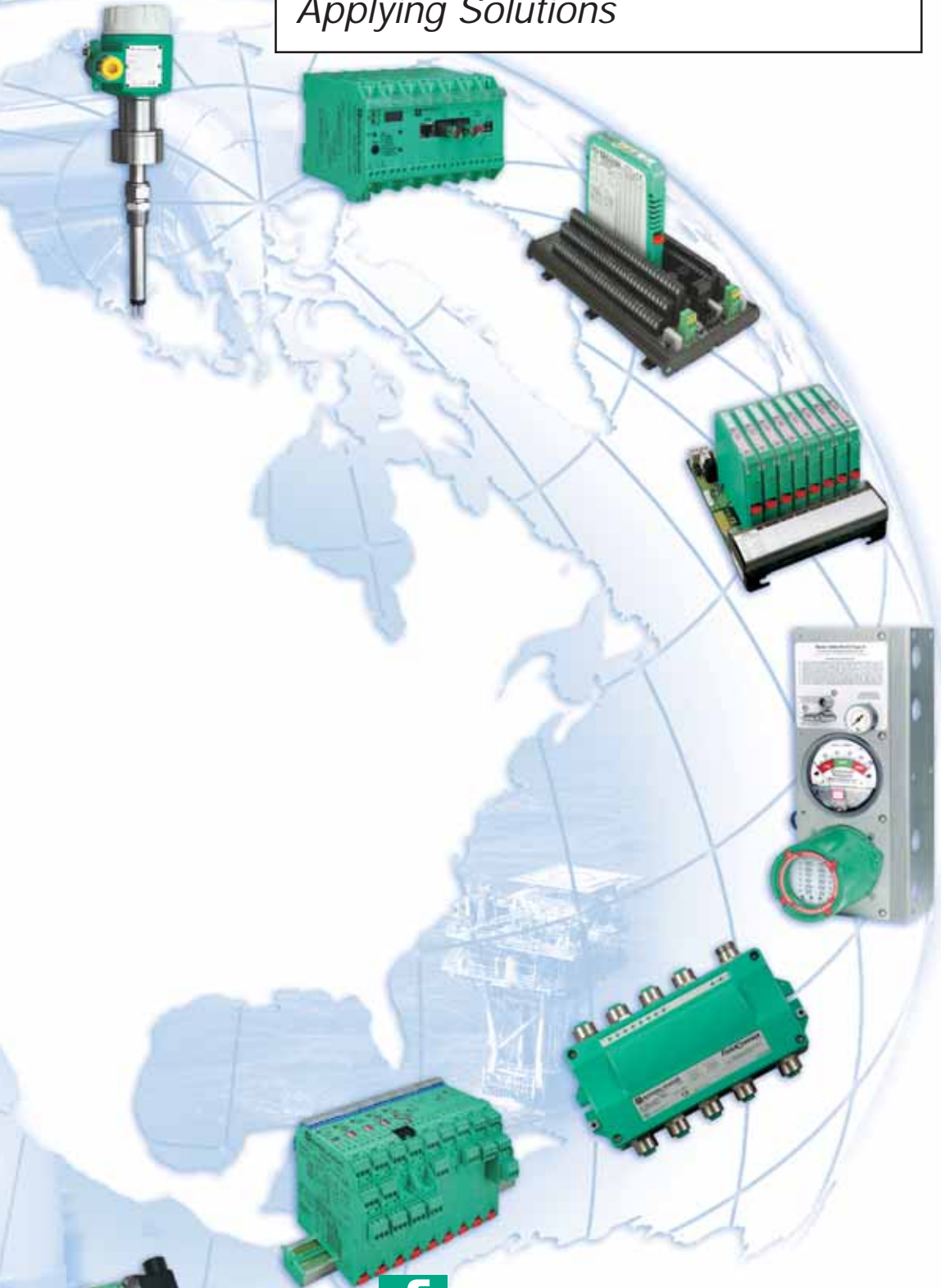




# PROCESS AUTOMATION

Signals for the World of Automation

*Applying Solutions*



**pf** PEPPERL+FUCHS

# INTRINSIC SAFETY

*The Most Trusted Name*

Let the experts at P+F show you why we are the worldwide leader for intrinsic safety interfaces. From our versatile DIN rail-mounted K-System isolators to our economical SafeSnap and new  $\mu$ Z zener diode barriers, P+F solutions are used throughout the world in every imaginable application. Our latest addition, HiD2000, is equipped with customized DCS connectors and marshalling features that take intrinsic safety well into the 21st century.

P+F introduced the intrinsic safety isolator to our customers in 1968 and we have been solving hazardous location applications since that time. With over 35 years of industry experience, it is no wonder why Pepperl+Fuchs is the most trusted name for intrinsic safety.

*Setting Global Standards*



*Over/under speed, rotation, frequency, time and analog set-points are solved with our logic control isolators.*

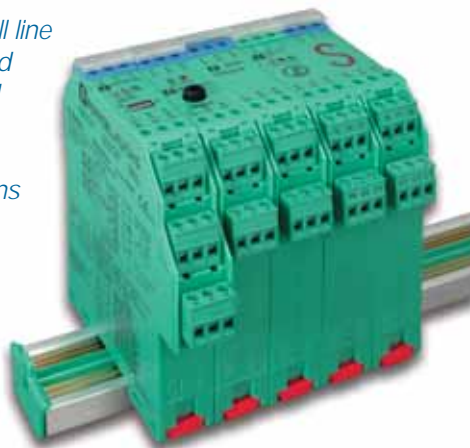


*P+Fs' new low profile  $\mu$ Z zener diode barriers are a perfect complement to our intrinsic safety line of products. Its small size makes them perfect for space critical applications and the field replaceable fuse allows quick repair.*



# for Intrinsic Safety

Pepperl+Fuchs' full line of DIN rail-mounted isolators is packed with features that make hazardous location applications simple to design and easy to install.

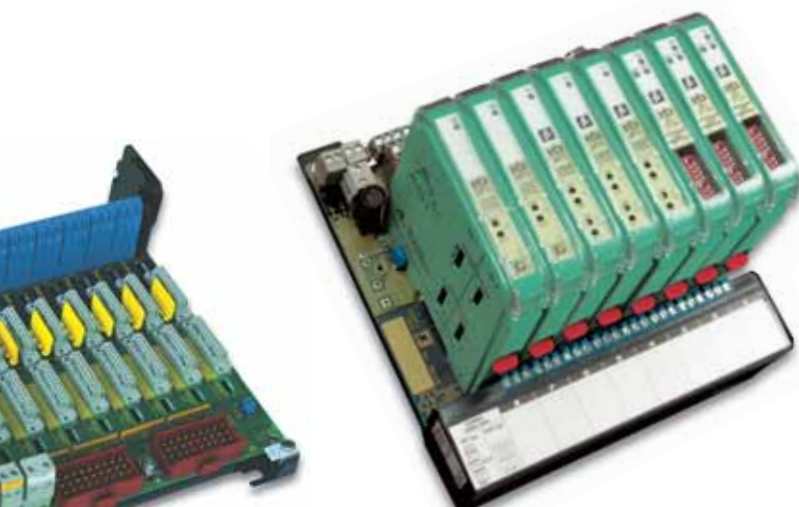


## K-System

- Galvanically isolated
- Single, Dual and Quad channel designs
- LED indication
- Line fault monitoring and indication
- Power rail compatibility

## HiD2000

- Customized system connectors
- 3-port isolated modules
- Worldwide approvals
- Plug-in I/O modules
- High density
- Color coded
- Integrated HART multiplexer

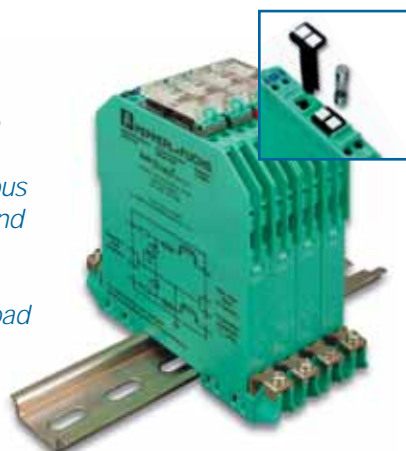


HiD2000 combines customized connectors, a patented wire marshalling option and plug-in modules for the ultimate DCS system integration.

## SafeSnap/SafeSnap Plus/ $\mu$ Z

- Zener diode barrier
- ATEX certified
- Replaceable fuse option
- DIN rail grounding
- 3-channel version
- High current design
- Low profile

SafeSnap zener diode barriers are used in a wide range of hazardous location applications and our replaceable fuse version, SafeSnap Plus, protects against overload and wiring faults.



# K-SYSTEM

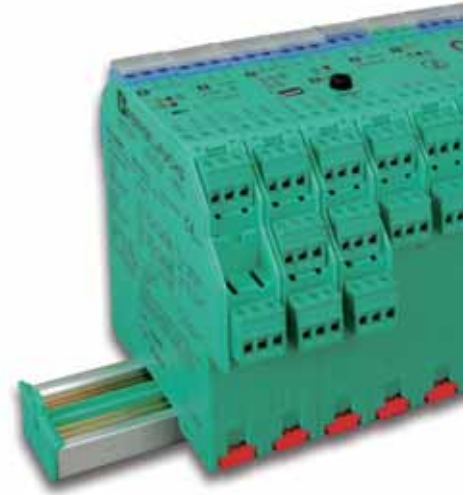
*A Wide Range of Applica*

Pepperl+Fuchs' K-System is the most complete line of signal transfer and protection instruments for the automation industry. Our unmatched product range offers our customers state-of-the-art galvanic isolation, signal conditioning and explosion protection.

The K-System consists of over 150 different modules offering unique features not found anywhere, and Power Rail compatibility leads the way as one of the most innovative and cost-saving enhancements.

K-System from Pepperl+Fuchs helps you realize the full potential of your system.

*Setting Global Standards*



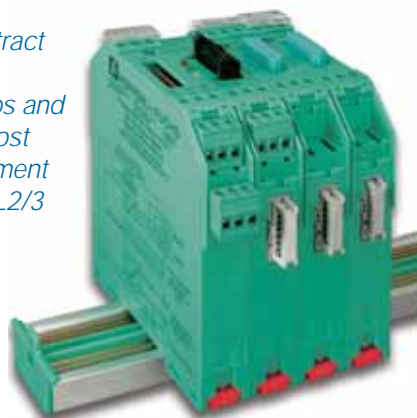
*Our plug-in surge barriers mount to K-System isolators and provide the ultimate in hazardous location and transient protection.*

# tions in One System

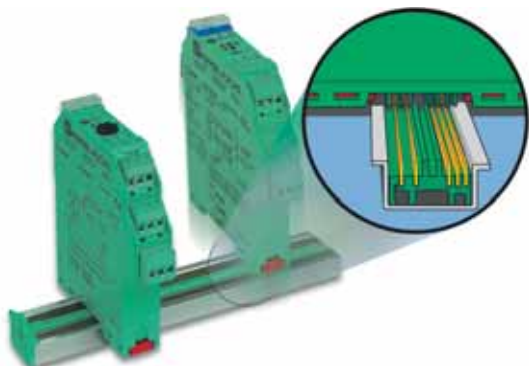


*K-System solves a wide range of hazardous area applications involving standard electrical signals as well as customer specific ones. From analog and discrete I/O to frequency and safety critical loops, our isolators are packed with unique features.*

*HART multiplexers extract the critical digital data found in 4-20 mA loops and can solve even the most critical asset management applications with a SIL2/3 rating.*



*Our line of signal conditioners provide isolation, limit detection and logic functions, and offer loop powered modules or separately powered units with 3-port isolation.*



*The P+F Power Rail supplies power to individual modules as well as provides diagnostic monitoring through gold-plated rails.*

## Our Leading Product Line

- Intrinsic safety isolators
- Signal conditioners
- HART® multiplexers
- Limit alarms & logic controls
- Safety modules
- Surge suppressors
- Power supplies

## Features

- Galvanic isolation
- Lifetime warranty
- Worldwide approvals
- SIL rated for SIS applications
- AC and DC powered
- Division 2/Zone 2 mounting
- Collective error messaging
- Keyed, removable terminals
- Redundant power options



*K-System power supplies and power feed modules mount to the Power Rail. Any attached modules are automatically energized with no additional wiring.*

# REMOTE I/O

## Open Communications a

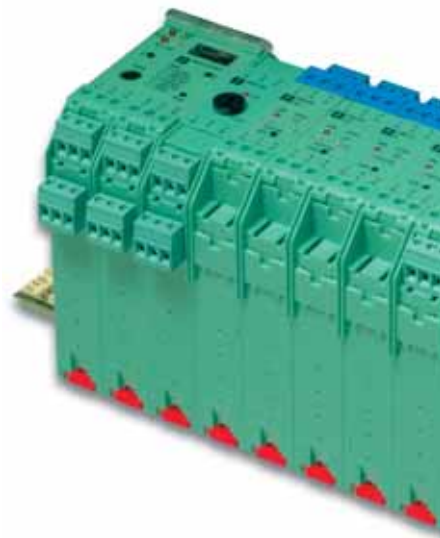
Pepperl+Fuchs has two unique systems to solve your remote I/O applications in hazardous locations. These I/O platforms are designed with open communication protocols for controller-independent operation.

We have included features in both product ranges that make product installation and system integration a simple process. A simulation mode allows easy testing while plug-in high-density modules allow efficient cabinet design.

No matter where you need to mount the system, Division 1/Zone 1, Division 2/Zone 2 or safe area, these systems are designed for optimal efficiency and cost savings. Let P+F show you a solution you can afford.

Setting Global Standards

*Remote Process Interface (RPI) combines the features of remote I/O with P+F's K-System intrinsic safety barriers.*



*Field mounted cabinet for efficient control room space savings.*



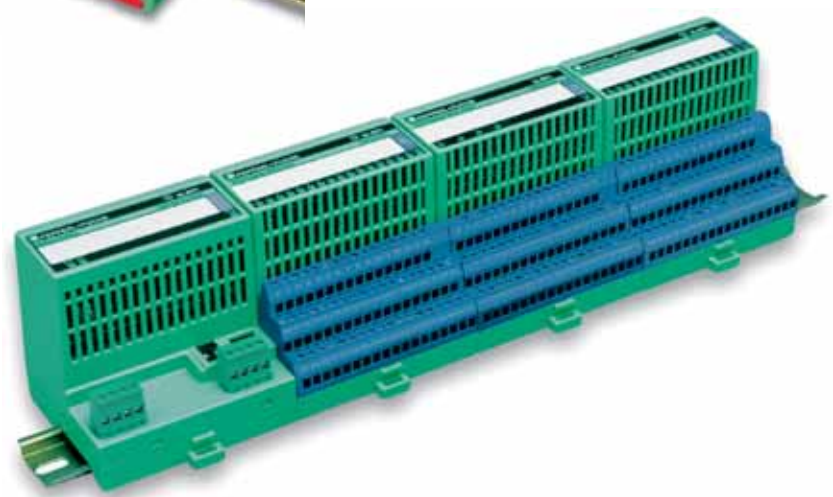
ControlNet..

# and Reduced Installation Costs

RPI has a wide range of gateways including Profibus DP, ControlNet, Modbus, Modbus Plus, EtherNet and HART.



We're EtherNet enabled so standard hardware can be used for interfacing to our 100 Mbaud, TCP/IP gateway.



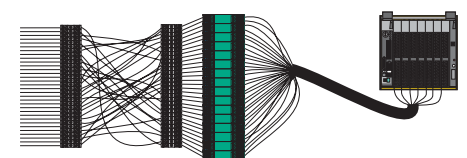
P+F's Intrinsic-Safe Remote Process Interface (IS-RPI) is a remote I/O system that mounts directly within a Division 1 / Zone 1 hazardous location and allows distributed blocks of I/O to be easily and inexpensively connected.

## Remote Process Interface

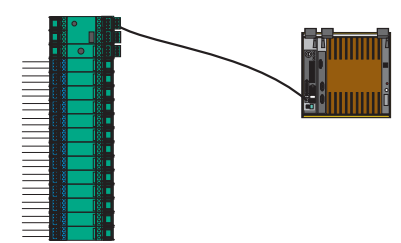
- Class I, Division 2/Zone 2 mountable
- Fully redundant design
- Simple HART integration
- Worldwide approvals
- Powerful software tools
- Easy to configure

## Intrinsically Safe Remote Process Interface

- Class I, Division 1/Zone 1 mountable
- High-speed data transfer
- Certified worldwide
- Quick on-line module replacement
- Fiber optic communication
- Efficient HART integration



Traditional wiring diagram with marshalling cabinet.



The clean wiring system of remote I/O can save time and money.

# FIELDBUS SOLUTIONS

## Connecting Fieldbus Power

FieldConnex is the most comprehensive line of interface products for fieldbus applications. The FieldConnex range includes the equipment mounted between the controller and the field instrument—the critical products necessary to simplify installation and maintain reliability such as power supplies, junction boxes/Segment Protectors and cables. Certified by all of the major DCS vendors, FieldConnex is based on a distributed architecture—one that allows the maximum number of field instruments to be connected to a host system.

P+F continues to take a leadership position in the development and standardization of fieldbus equipment and with FieldConnex, we are truly *Connecting Fieldbus Power and Knowledge*.

*Setting Global Standards*



*Our full line of fieldbus power supplies contains a wide range of redundant, isolated, conditioner and repeater supplies that can be used for standard, safety critical, nonincendive (NIFCO) and intrinsically safe (FISCO) applications.*



*This high-speed segment coupler links 12 Mbaud PROFIBUS DP to PROFIBUS PA in both hazardous and nonhazardous areas. It features controller-independent operation that requires no programming.*

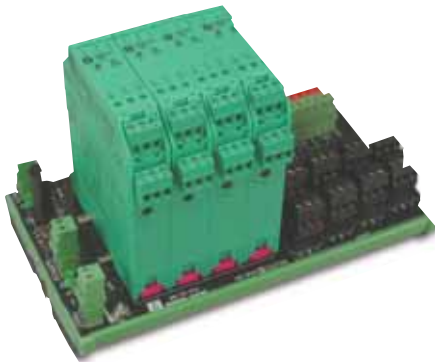




When used in conjunction with one of our power supply systems, FieldBarriers and Segment Protectors establish distributed architectures that greatly reduce the need for controller cabinet space and take full advantage of fieldbus installation savings.

### FieldConnex

- Standard and isolated fieldbus power supplies with diagnostics
- Intrinsic safety (Div. 1) and nonincendive barriers (Div. 2)
- Repeaters
- High speed segment couplers
- Terminators
- FieldBarriers
- Discrete I/O solutions
- Junction boxes and Segment Protectors
- Cable, cordsets and accessories
- Surge suppressors



Custom engineered solutions are standard at P+F and our development group can design a fieldbus product that meets your own exact requirements.



Our Segment Protectors provide isolation and short circuit protection of the fieldbus signals in a wide range of mounting configurations.



From DIN rail and instrument mounted terminators to a fullline of cables and cordsets, we offer a complete selection of accessories to efficiently install a fieldbus network.

# CORROSION MONITORING AND

*Affordable, Accurate and*

Pepperl+Fuchs' level and corrosion measurement products consistently outperform others when it comes to meeting the tough demands of our customers. Because we specialize in both the instrument and the interface products, P+F can offer a complete level measurement and/or corrosion monitoring solution for any application.

Combined with our unmatched line of intrinsic safety equipment and fieldbus interface units, P+F's level sensing and corrosion monitoring technologies provide high performance in any environment. And because it's P+F, you know it will be easy to configure and maintain, while delivering unparalleled accuracy and performance.

*Setting Global Standards*



*Pepperl+Fuchs' new corrosion transmitter offers real-time monitoring of general or localized (pitting) corrosion. The 4-20 mA transmitter is available with a wide range of probes and electrodes for almost any application in both general-purpose and hazardous areas.*



# D LEVEL SENSING

## Adaptable

*From the very basic to the most complex, Pepperl+Fuchs can engineer a complete level solution by incorporating our industry-leading selection of interface technology with our unmatched offering of level sensing instruments.*



*Vibracon Mini is the world's smallest point level sensor using frequency shift technology. This level switch is available with process connections as small as 1/2" NPT.*



*Our level control interface products solve latching relay and limit alarm applications plus a host of other signal conditioning operations in both safe areas and hazardous locations.*

### Corrosion Transmitter Features

- On-line monitoring of general or localized (pitting) corrosion
- 2-wire 4-20 mA with HART capability
- Suitable for pipes or vessels
- Wide range of probe configurations
- Direct or remote mounting

### Level Sensing Features

- Worldwide certifications
- Sanitary mounting options
- Hazardous area solutions
- Fieldbus compatible
- Multiple process connections

### Level Technologies

- Radar
- Ultrasonic
- Pressure
- Frequency shift (vibration)
- Capacitive
- Conductivity
- Float
- Magnetic immersion

# PURGING AND PRESSURIZATION

*The Leaders in Purging*

Pepperl+Fuchs Bebcos EPS is the industry's largest and most qualified source for purge/pressurization systems.

Purge systems enable general-purpose equipment to be used inside hazardous areas and are offered in Types X, Y, Z, Ex nP and Ex p models. Our systems comply with the latest NFPA, ISA, CENELEC and ATEX requirements, and are suitable for both North American and European use, so you only need one unit for all your applications. P+F's vast line of purge and pressurization equipment allows you to establish a safe oasis within your enclosure to ensure safety and reliability no matter what the environment.

*Setting Global Standards*



*Our 1000 series sets the industry standard for purge and pressurization systems with its ingenious design and high reliability while the 3000 series lifts the standard even further with a gas manifold block that reduces the panel size and increases performance.*

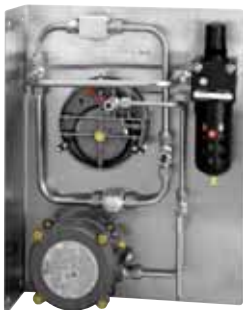


# Technology®

Our Type X, Y, Z, Ex nP and Ex p purging systems provide superior performance with worldwide support resulting in a high level of satisfaction.



Series 4000 purge systems feature a field-adjustable controller with a 12-point LED display for system functions. It can be used worldwide in Division 1 and Zone 1 hazardous areas because it's certified to both North American and European requirements.



The Type Y and Z panel mount purge system is simple to use and install. Its stainless steel hardware is corrosion resistant for trouble-free operation. Alternate materials are also available for custom applications.

## Features

- Enclosure sizes up to 450 cubic feet
- Panel, kit or universal mounting
- Environmental purge for nonhazardous areas
- Universal certification for worldwide use including ATEX
- Suitable for Class I, II, and III, Division 1 and 2/Zone 1 and 2 hazardous areas
- Proven field support
- Custom solutions for equipment suppliers



P+F can supply all of the vents, regulators, pressure switches and other critical hardware like tubing and bulkhead fittings necessary for any purge/pressurization system.

# INTERFACE PRODUCTS

*Connecting You to the Future*

Pepperl+Fuchs takes great pride in offering the most complete line of interface products for the automation industry. We are the world's top supplier of HART interface products with an unbeatable selection of interface boards for a wide variety of applications. P+F is also your source for reliable power, such as our N+1 redundant power supply for critical applications. And with the sizeable investment you have made in your systems, doesn't it make sense to protect your instruments with P+F's SafeZap surge suppressors? No matter what you need to make your system work, you can rely on P+F technology to make it economical and reliable, now and in the future.

*Setting Global Standards*



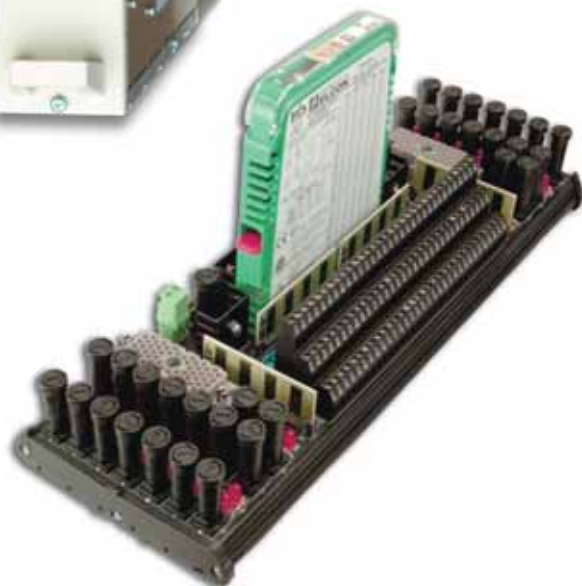
**HS** HART  
INTERFACE  
SOLUTIONS™



## ture of Efficient Maintenance



*Our high integrity power supply is excellent for your critical applications. From its N+1 redundancy option to its hot swapping capability, this supply has a wide range of uses.*



*HIS is the answer to your equipment maintenance needs. It puts HART information at your fingertips without the need to upgrade or replace your existing hardware.*



*SafeZap eliminates destructive surge currents and protects sensitive electronic equipment from damage. They can be used inside a control room, in the field or within a hazardous area.*

### Power Supplies

- 90 A capability
- N+1 load sharing design
- Built-in alarm outputs
- Adjustable output voltage
- High efficiency design
- Low noise - great for fieldbus applications
- Automatic power factor correction

### HART Interface Solutions

- Standard and custom designs
- Integrated 32-channel HART multiplexer
- DCS connection
- Seamless integration
- Worldwide support

### Surge Suppression

- 10 kA surge protection
- Standard, explosion-proof and intrinsically safe versions
- Automatic reset
- No maintenance required
- Reliable gas-tube design
- Simple K-System plug-in version

# Signals For The World of Automation

Pepperl+Fuchs has been setting global standards in process instrumentation for more than fifty years, bringing the world new technology that you can use today. We invest in the future so that state-of-the-art is a way of life at P+F, and so our customers can benefit from the latest breakthroughs in signal transfer and protection, fieldbus, level control and corrosion monitoring and purge/pressurization systems. This commitment to technology extends to our acquisition of Bebcu EPS to make Pepperl+Fuchs the world leader in intrinsic safety and purge/pressurization equipment.

The P+F Process Automation Division specializes in precision. Whether it is accurate instrumentation or meeting the specifications of the most demanding international standards, P+F equipment excels in difficult environments. As a guarantee of quality, our products are produced according to the ISO 9001 International Standard and carry all the national and international certifications and registrations. That means every P+F product, from our most basic zener diode barriers to our sophisticated fieldbus instruments, will meet the demands of your most challenging applications, no matter where you are. We do more than simply meet global standards; we set them.

Providing solutions is an integral part of the Process Automation Division, making us your only choice for difficult or unconventional situations. We take great pride in our ability to solve problems with products that nobody else can match. From custom system configurations to innovative new products, you can rely on Pepperl+Fuchs to get you out of those tight spots with creative and sophisticated solutions.

We also specialize in customer service. Whether it is for replacement components or just to answer your questions, P+F's global presence will be there today and tomorrow to keep your system operating at peak efficiency. Answers to all your questions are only a phone call away and our international network of professionals is available for local support and training. At Pepperl+Fuchs, your success is our only goal, no matter which part of the globe you call home.



The **GreenTeam** is P+F's network of experts dedicated to providing customized process solutions.



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