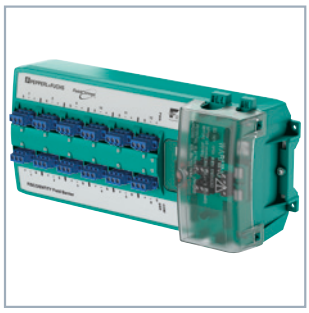
INTELLIGENT FIELDBUS – KEEPS YOUR PROCESS RUNNING

INTELLIGENCE INSIDE: THE NEW FIELDCONNEX® FIELDBARRIER

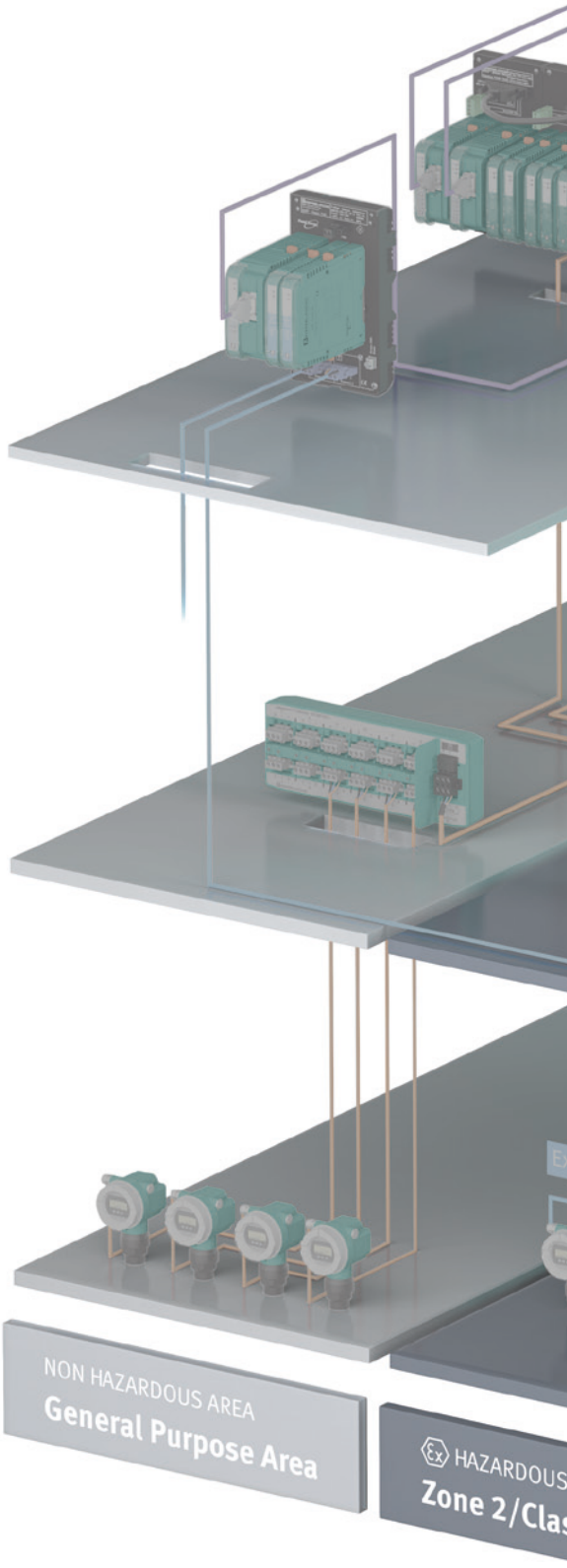


FieldConnex®

PEPPERL+FUCHS

Intelligent Fieldbus – the Second G
Diagnostic-enabled FieldBarrier

Pepperl+Fuchs, inventors of the first FieldBarrier with more than 1,000,000 channels installed throughout the world, summed up all our experience and customer feedback in our Second Generation FieldBarrier. It incorporates a lot of innovative features, from incorporated diagnostics to the field device and internal redundancy of core components that avoid costly physical redundant FieldBarriers, up to space optimization by offering the smallest package and lowest power consumption, allowing for an overall compact installation in the field. The new FieldBarrier guarantees the highest possible level of operational reliability for each Fieldbus segment – the latest innovation and new benchmark in fieldbus technology from the global market leader in fieldbus infrastructure.



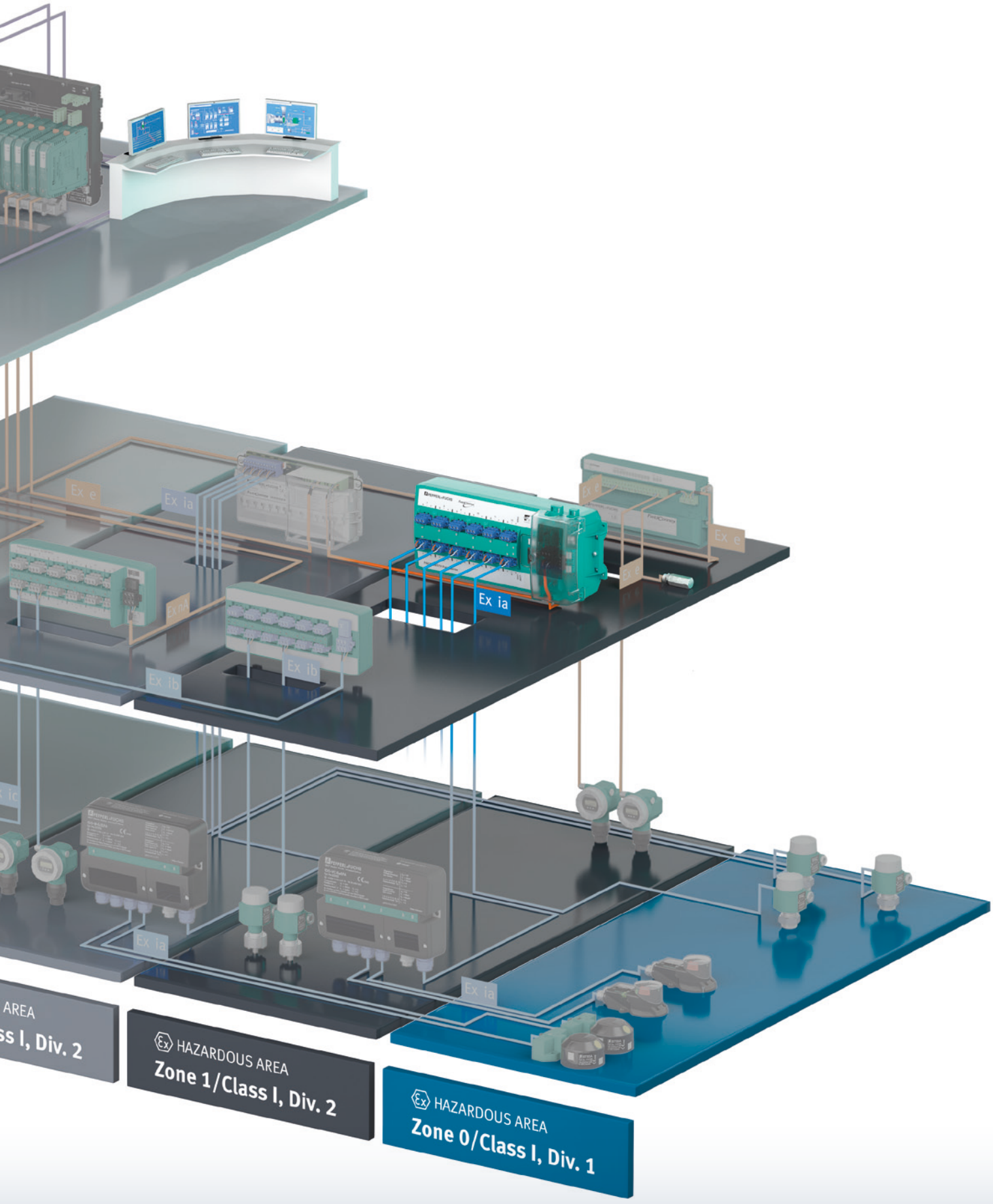
Intelligent Fieldbus: Secure Fault Detection without Compromise

Detect errors. Avoid errors. Isolate errors. Access to the field device – the spur connection – requires maximum protection for maximum segment availability. The FieldConnex FieldBarrier provides a range of superior features for superior protection. The FieldBarrier automatically detects and suppresses contact bounce and creeping short circuits.

For the first time, the device also monitors the physical layer at the spur. Delivering an unprecedented level of precision, the FieldBarrier detects changes and weaknesses in the fieldbus physical layer at the field device connection. It also detects status reported by the enclosure leakage sensor and the surge protector with self-diagnostics from the FieldConnex product range. It reports all conditions to the control system via the Advanced Diagnostic Module.

Further information is available at www.pepperl-fuchs.com/intelligent-fieldbus

eneration with



12 Channels and Diagnostics at Ea
More Performance for More Availa

The new FieldBarrier with 12 spurs represents an advanced level of technology that sets new standards in reliability: This new technology focuses on achieving the greatest level of availability for each individual segment. As a result, the FieldBarrier boasts innovative, state-of-the-art features that all add up to one benefit – maximum protection against segment failure.

Protection Right from the Start: Intelligent Load Management

When the segment starts, the FieldBarrier activates the outputs in sequence to prevent excessive inrush currents. If an overload is imminent during normal operation, noncritical loads are shed – and the process system remains optimally protected. A unique total load management system limits the maximum current the FieldBarrier consumes at any time.

If a fault occurs at the spur, the output switches off quickly reducing the current to 1 mA (fold back). The output returns to normal operation when the fault has been cleared. Even in the unlikely event of multiple concurrent short circuits, the additional current demanded of the fieldbus power supply is minimized. This prevents the risk of a segment shutdown due to power supply overload.

Zero Tolerance: Fault Detection at Each Output

The FieldConnex FieldBarrier features a completely new function that has previously only been offered by the Segment Protector: For the first time, the device detects and suppresses fault situations that can occur at each output.

- Gradual changes to the communication signal and load characteristics can be caused by factors such as water ingress, leading to temporary and often hard-to-find faults. The intelligent diagnostic function deactivates the output while maintaining segment operation.
- Contact bounce that occurs when connecting or removing connectors during live maintenance, or is caused by vibrations – is automatically detected and the output deactivated. The same is true for continuous signals caused by an occasional device fault (jabber).

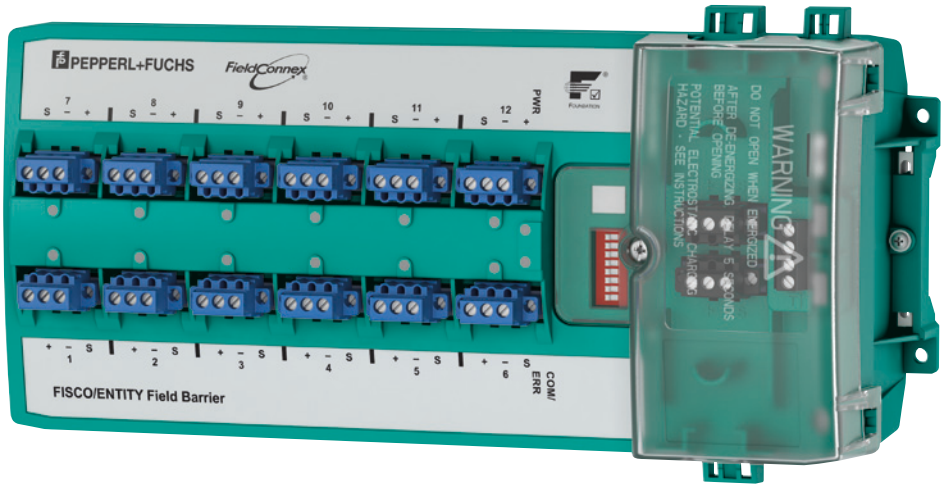
Uniquely Innovative: Physical Layer Diagnostics at the Spur

As an industry first, the new FieldBarrier offers physical layer monitoring at the spur. A “maintenance required” or “out-of-specification” alarm is sent to the diagnostic software and the control room whenever communications quality reaches critical levels. Monitoring at the spur provides an even higher level of transparency than was previously possible.

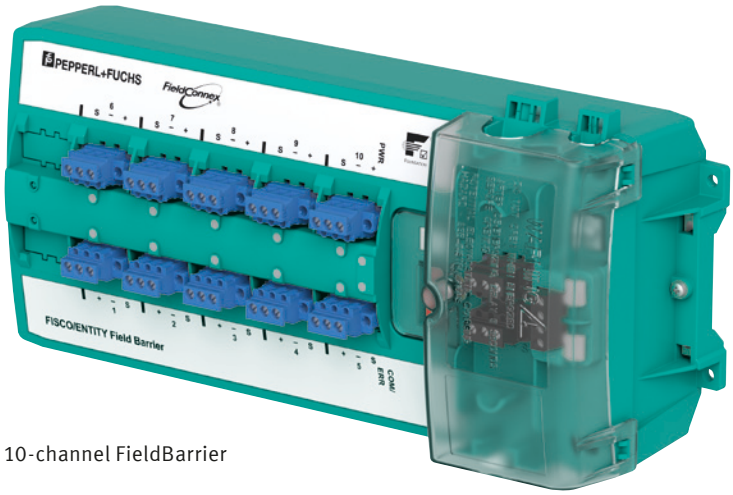
Intelligence Inside: Self-Monitoring for Reliable Segments

To retain full functionality, a whole range of features are integrated in the device to eliminate any risk. Sensitive components are redundant in design, and the self-monitoring function detects aging before components are close to failure. An alarm in the control room displays any maintenance requirements – another feature that minimizes the level of risk and enhances availability.

ch Output:
bility



12-channel, diagnostic-enabled FieldBarrier – innovation brought to fieldbus by Pepperl+Fuchs.



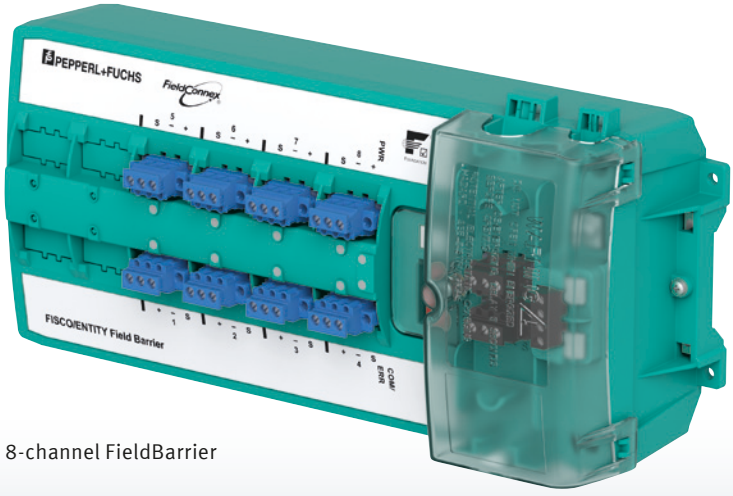
10-channel FieldBarrier

The Right Option for Every Requirement

Depending on application and plant infrastructure, the new FieldBarrier is available with 8 or 10 outputs. They offer the full functionality of the 12-channel version and offer an efficient solution, tuned to the application.

Design Freedom for Maximum Dimensions

The geographical dimension of the process plant does not make any difference: Eight to twelve outputs are selectable. Up to three FieldBarriers can operate on one segment. The low internal impedance and design allows for cable distance and device count not limited for reasons of explosion protection. Such freedom is unprecedented with fieldbus.



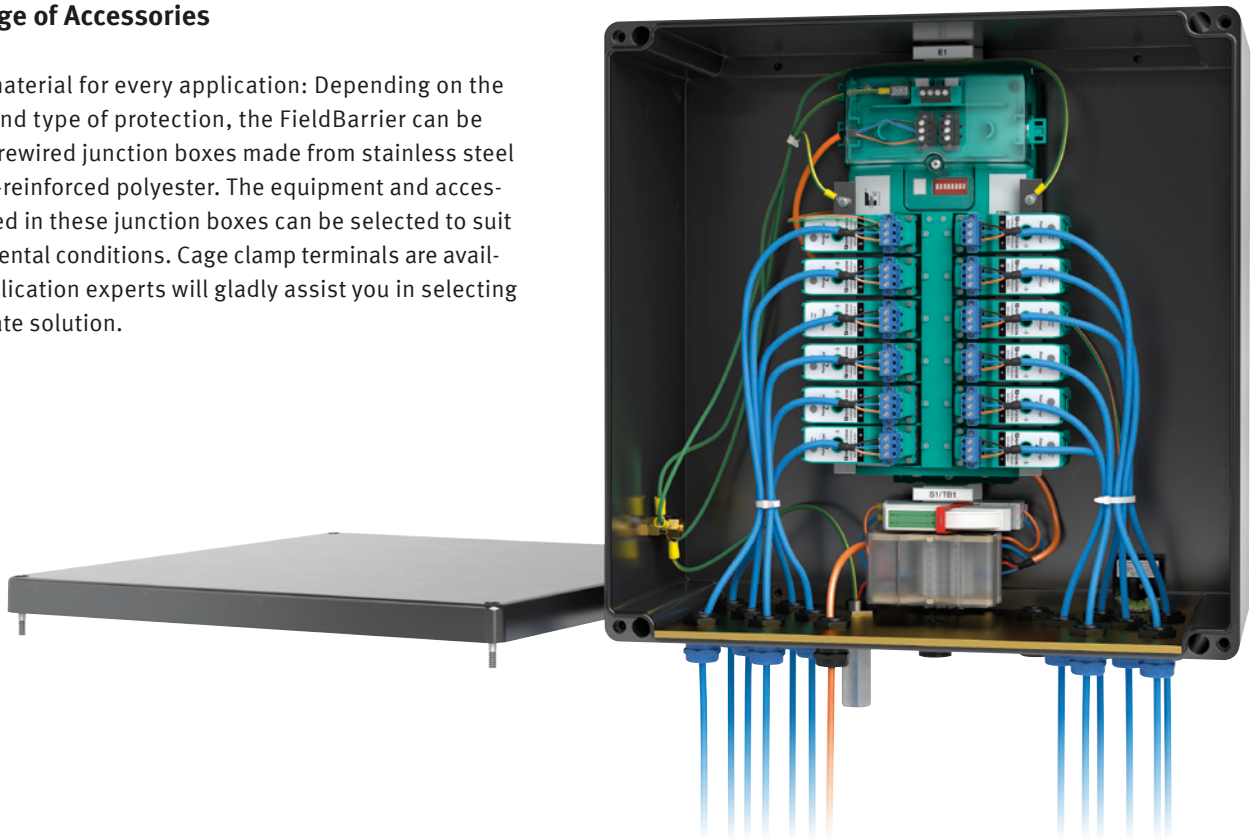
8-channel FieldBarrier

Pre-Engineered Solutions for Every

Pre-engineered, tested, and featuring plug&play functionality – integrated in the junction box, the new FieldBarrier offers the same level of convenience as all pre-engineered solutions from FieldConnex. Specifically unique is the efficient design: 50% less space is required for the entire installation and high packing density makes this solution the most compact in the market. The field boxes are supplied ready for installation: A single certificate for the unit including installed components provides proof of the explosion-protection properties for easy handling.

A Wide Range of Accessories

The correct material for every application: Depending on the application and type of protection, the FieldBarrier can be installed in prewired junction boxes made from stainless steel or glass fiber-reinforced polyester. The equipment and accessories featured in these junction boxes can be selected to suit any environmental conditions. Cage clamp terminals are available. Our application experts will gladly assist you in selecting the appropriate solution.



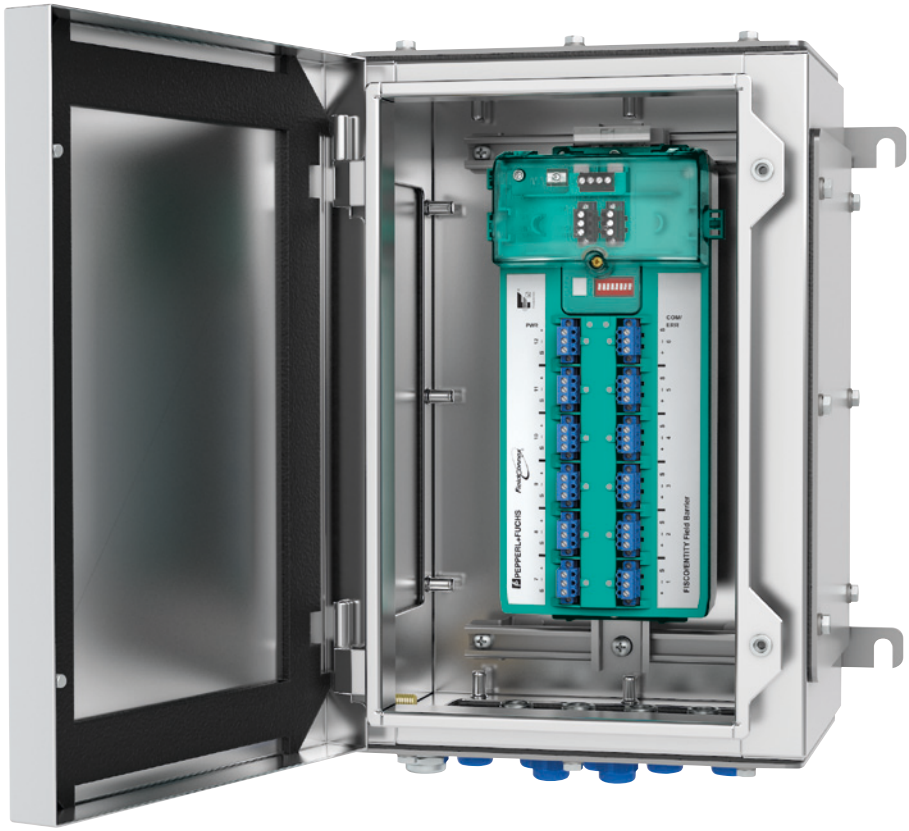
Surge Protector on the Trunk
Surge protector on the trunk, rugged IP67 housing, screws into a free cable entry of the junction box, even in explosion-hazardous areas. With “Ex e” protection type, “increased safety” is provided.

Surge Protector on the Spur
Can be connected to the device – without the need for any additional wiring. Can be equipped with a self-diagnostics function. Also available as a retrofit.

Requirement

High Packing Density and 50% Reduction in Installation Space

Half the size of typical installations today, the new FieldBarrier with 12 outputs offers a maximum in packing density and device connections in the smallest possible space. Aside from the superior engineering, the most important factor is the design in portrait format, so that the junction box takes the smallest amount of wall space. Still, the interior is roomy and connection points conveniently located. The small space requirements for the installation is another advantage: Internal wiring is entirely avoided, which simplifies wiring work and keeps the wiring neat even when modifications are required.



Leakage Sensor
Assembled in the fieldbus junction box or in the instrument head. Early reporting of moisture ingress via Advanced Diagnostics.

Multifunction Terminal
For deactivating components connected to the trunk without a hot work permit, for example, when installing multiple FieldBarriers on a single segment.

Further information is available at www.pepperl-fuchs.com/solution-engineering

YOUR APPLICATION. OUR CHALLENGE.

PROCESS INTERFACES

- Intrinsically safe barriers
- Signal conditioners
- Fieldbus infrastructure
- Remote I/O systems
- HART interface solutions
- Wireless solutions
- Level measurement
- Purge and pressurization systems
- Industrial monitors and HMI solutions
- Explosion protection equipment
- Solutions with process interfaces

INDUSTRIAL SENSORS

- Proximity sensors
- Photoelectric sensors
- Industrial vision
- Ultrasonic sensors
- Rotary encoders
- Positioning systems
- Inclination and acceleration sensors
- AS-Interface
- Identification systems
- Logic control units

www.pepperl-fuchs.com

PEPPERL+FUCHS