

**Providing versatility.
Increasing performance.
Maximizing safety.**

Product Overview Electrical Ex Equipment
Components and Solutions For Electrical
Explosion Protection



Your automation, our passion.

pf PEPPERL+FUCHS

Innovative Solutions. Perfect Applications.



As a leader in industrial sensor technology and a pioneer in electrical explosion protection, Pepperl+Fuchs has been developing components and solutions for over 70 years. Above all, our goal is to offer the perfect solutions for our customers' applications. This is only possible with close collaboration. Not only do we share our passion for automation with customers—we also share our in-depth expertise and experience.

Forging ahead with new ideas and finding new approaches is what drives us. This is the foundation for technologically advanced solutions that are tailored to individual applications and geared toward future requirements.

Creating customer-focused solutions to meet today's and tomorrow's challenges is at the center of everything we do. And Industry 4.0 makes this more important than ever.

Pepperl+Fuchs is reenvisioning tried-and-trusted technologies and developing innovations that pave the way for networked production and communication that transcends your company's boundaries. Our innovation—your competitive advantage.

For more information, visit us online:
www.pepperl-fuchs.com

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Solutions for Every Protection Type

Pepperl+Fuchs offers an extensive portfolio of components and solutions for all common types of protection in all Zones and Divisions including:

Ex i: Intrinsic Safety

In this traditional method of electrical explosion protection, isolated barriers limit current and voltage to prevent energy levels and temperatures that could ignite a surrounding explosive gas mixture.

Ex e: Increased Safety

In this type of protection, measures are taken to ensure IP protection with a corresponding use of approved terminals. These measures provide an increased degree of safety by preventing impermissibly high temperatures and the generation of sparks or arcs during intended operation or in defined exceptional conditions.

Ex d: Flameproof/Explosion-Proof Enclosures

Components that can cause ignition are installed in certified housings that can withstand explosion pressure, and prevent ignition energy from being transferred externally.

Ex p: Purge and Pressurization

Components that do not have Ex approval are operated within a pressurized housing. The housing is constantly overpressured with nitrogen or an inert gas to prevent the ingress of explosive gas mixtures, which in turn prevents ignition.

Maximum Protection and Efficiency. Electrical Explosion Protection from Pepperl+Fuchs.

When it comes to low-voltage control or distribution of electrical power, explosion protection is necessary in almost all areas. As such, there are also many requirements to take into account. Pepperl+Fuchs is an expert partner in this field for customers all over the world and in all industrial sectors. Our portfolio can provide the correct solution for any requirement—with maximum reliability and cost efficiency.

As an established partner of the automation industry, Pepperl+Fuchs is known for its decades of experience and expertise in electrical explosion protection. Our extensive portfolio includes solutions for all common types of protection and international certification requirements.

Providing a global service is also of utmost importance: With six Solution Engineering Centers (SECs) around the world, our experts can always be directly on site to provide optimal support to customers. In addition, more than 300 external sales staff within the global sales network offer customers in-depth application expertise. This ensures that customers can always find the support they need.

For more information see
www.explosionprotection.com

GOVAN from Pepperl+Fuchs

For more than 70 years, the GOVAN brand from Pepperl+Fuchs has been synonymous with the highest level of expertise in the field of explosion protection. Its extensive portfolio of electrical switching systems, products, and customer-specific solutions fulfill the highest level of safety standards and certification requirements for explosion-hazardous areas. Customized control panels and distribution panels that completely fulfill the customer's requirements even under the most difficult conditions are produced at the company's worldwide production facilities with their own foundries.

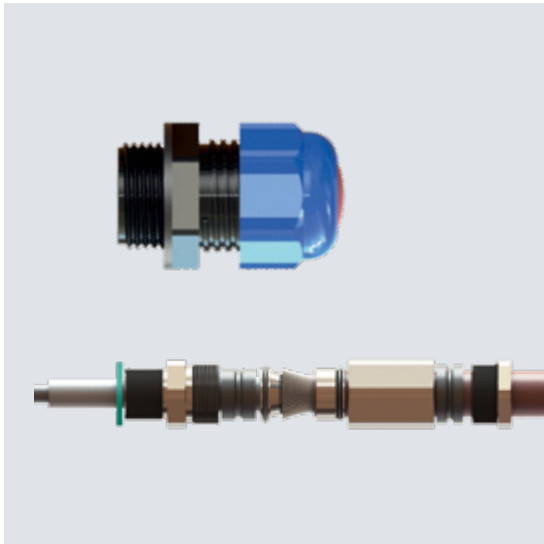
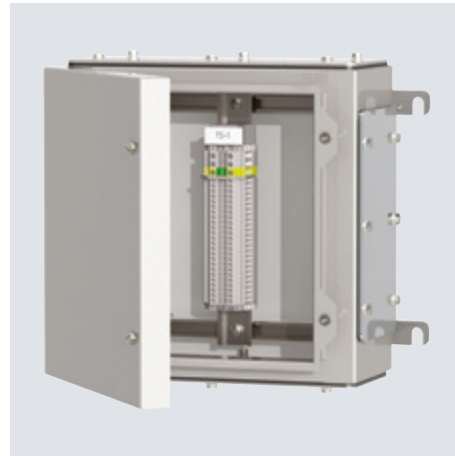
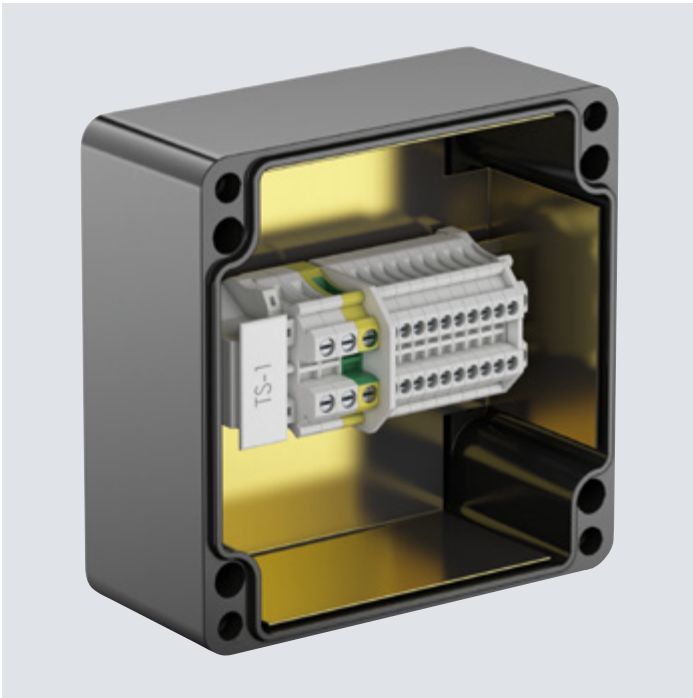
Using the highest manufacturing standards ensures that we are always able to meet our stringent quality, safety, and reliability standards.



A Versatile Portfolio for Global Use. Rugged Panel Solutions.

Components and accessories from Pepperl+Fuchs feature rugged designs that can withstand even the toughest ambient conditions. This is demonstrated by the switching elements and fittings for switch cabinets in explosion-hazardous areas. The enormous variety of options ensures maximum flexibility for customers and, because the solutions comply with all regional directives and requirements, they can be used all over the world.





The Products

Pepperl+Fuchs offers highly configurable terminal and junction boxes featuring the type of protection Ex e. The boxes are available with short lead times. They can be used at temperatures down to -40°C , covering an enormous temperature range without any additional mechanical protection for the cable glands.

Cable Glands

Cable glands are crucial in ensuring that components and solutions are perfectly adapted to customer requirements. Pepperl+Fuchs offers a complete portfolio in a wide variety of materials and types of protection. This includes plastic cable glands with maximum impact resistance in accordance with IEC and IP/type standards, eliminating any requirement for additional mechanical protection and therefore providing maximum efficiency. To save time, lower costs, and prevent connection errors, armored cable glands feature a simple installation concept with captive components.

Requirements

Components and solutions must be specifically tailored to regional guidelines and requirements. Pepperl+Fuchs offers perfectly coordinated, ready-to-use, fully certified systems for this purpose. These systems are all top quality and can be implemented quickly and efficiently.

Expertise

Decades of experience and in-depth knowledge of explosion protection, a wide range of products and solutions for all requirements, ISO-certified production facilities, and compact, fully certified components: This is all a matter of course for Pepperl+Fuchs' worldwide subsidiaries. Such criteria are crucial for resellers such as panel manufacturers.

Reliable Products. A Portfolio that Endures.

From cranes moving heavy loads to applications that require millimeter-level accuracy, control units from Pepperl+Fuchs demonstrate maximum reliability. The highly durable portfolio from our base in Mannheim also ensures a reliable investment for customers in all industries.





The Products

Pepperl+Fuchs offers a wide variety of control units suitable for use in Zone 1 and Division 2. They can be configured in various protection methods, including increased safety Ex e and flameproof Ex d designs, making them suitable for monitoring and control applications. There is a wide range of housing sizes and designs available in copper-free aluminum, stainless steel, and glass fiber reinforced polyester. The portfolio is rounded off by a large number of operating elements for a wide variety of control functions—providing the right solution for every requirement.

Applications and Requirements

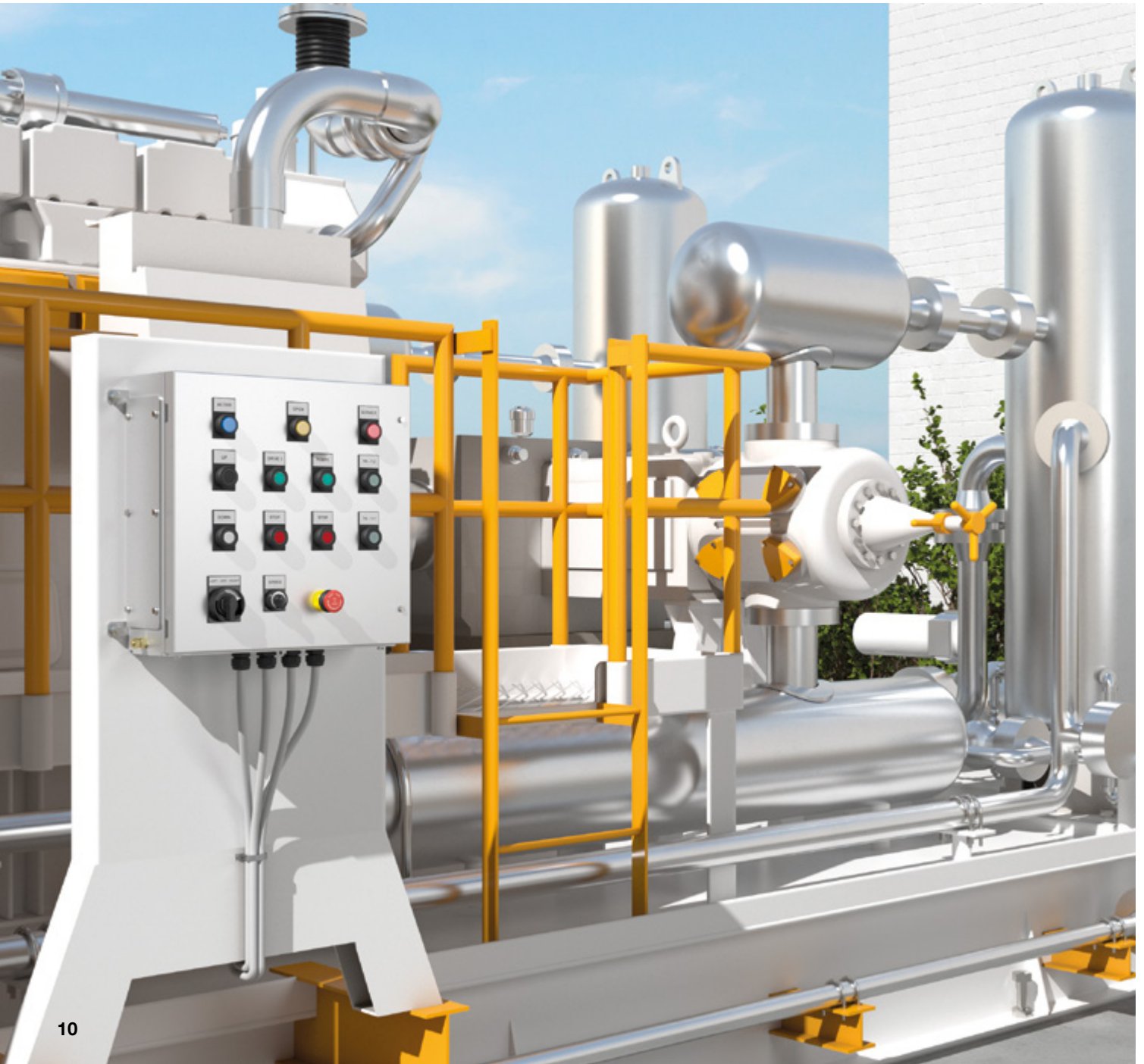
Control units are used in almost all areas of process automation, including for pumps, centrifuges, crane controls, or analysis containers. Pepperl+Fuchs offers users a comprehensive and extremely reliable portfolio of control units, ensuring a secure investment. Decades of experience and in-depth knowledge also form the perfect basis to optimally support MRO projects, which includes providing documentation for proper record-keeping.

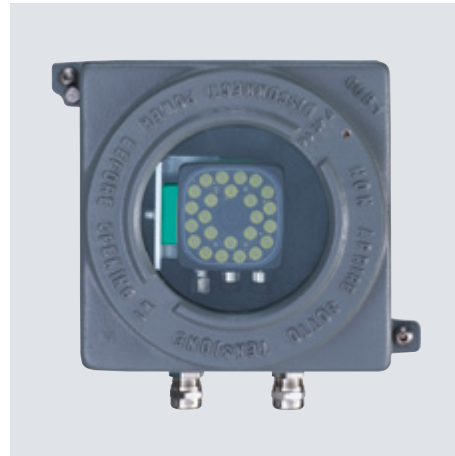
Expertise

Expert staff are available locally at all times to provide optimal support for users. Experienced engineers will find the right solution for any requirement—from uninterruptible power supply (UPS) to tailored systems—including certification.

Components or Complete Custom Solutions— The Perfect Selection for Machine Builders

Machine builders have a variety of requirements when installing control stations. They may need the perfect addition to an existing panel or completely prefabricated operating and control units. Pepperl+Fuchs offers solutions tailored to exact customer needs—from individual components to the complete package.





The Products

The enormous range of control station-related products from Pepperl+Fuchs offers almost unlimited flexibility. Housing designs with various protection types ensure reliable protection for every application. A wide range of housing sizes in aluminum, stainless steel, and glass fiber reinforced polyester designs offer the right solutions for every application.

Applications and Requirements

Whether elevators, cranes, or oil separators—control stations are essential in almost every area of machine construction. Customers look for components to complement their own equipment as well as complete, tailor-made operating and control units. When it comes to control units, Pepperl+Fuchs not only offers the correct solution, but also certification and documentation—everything from a single source.

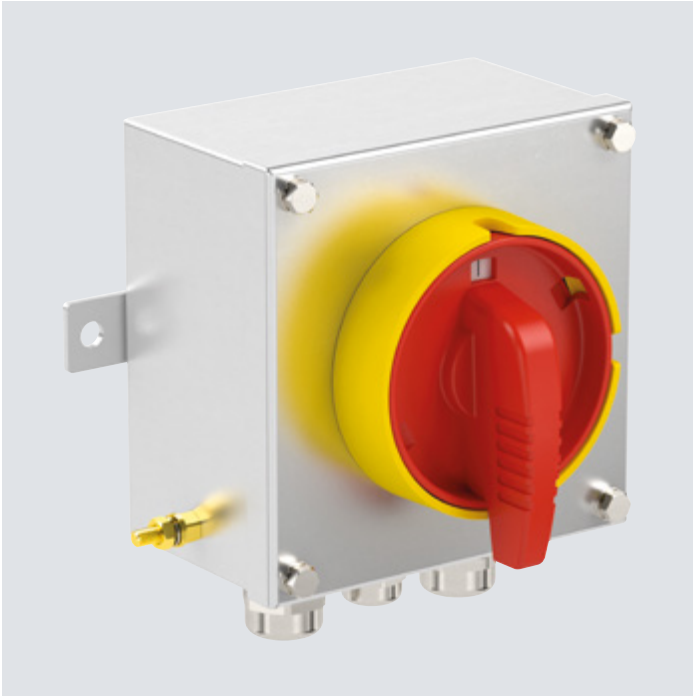
Expertise

Thanks to local engineering solutions and quick delivery times, Pepperl+Fuchs is renowned for being a reliable partner and for possessing in-depth knowledge in the field of explosion protection. Its subsidiaries ensure that on-site service and support are always available.

Precise Safety and Flexible Design. Switch Disconnectors and Safety Switches from Pepperl+Fuchs.

For maximum safety during day-to-day operation, switch disconnectors and safety switches must achieve their primary objectives: to provide absolute reliability and to fulfill all explosion protection requirements down to the last detail. Pepperl+Fuchs products offer system integrators a broad portfolio that includes highly flexible designs and simple engineering.





The Products

Switch disconnectors and safety switches are essential for applications where motors are used in explosion-hazardous areas. To ensure maximum flexibility, Pepperl+Fuchs offers a wide selection of options, each of which represents high-quality engineering. These components cannot be manipulated, ensuring the safety of personnel and equipment at all times.

Applications and Requirements

Switch disconnectors and safety switches are of utmost importance in the safe operation of fire extinguishing systems, to name just one example. Pepperl+Fuchs' solutions offer simple, straightforward engineering and a highly flexible design.

Expertise

Pepperl+Fuchs is a reliable partner in the automation industry with decades of expertise in explosion protection. It is precisely this experience that forms the basis for a wide range of high-quality products in the field of electrical explosion protection equipment.

Highly Reliable, Efficient, and Flexible. Purge and Pressurization Systems for Plant Engineering.

When conventional automation components have to be used in explosion-hazardous areas, purge and pressurization probably offers the most flexibility of any type of protection. As the market leader, Bebcu EPS® products from Pepperl+Fuchs not only feature high-end systems, but also optimal service worldwide, from the planning stage to a completed and certified solution.





The Products

With the Bebcu EPS® product range, Pepperl+Fuchs offers the right solution for every kind of purge and pressurization application. The systems are certified for global use and provide a high level of safety during use in every explosion-hazardous area. Their compact design means that they can be installed either inside or outside the housing.

Applications and Requirements

Purge systems are used with motors and gas analyzers throughout process automation. If these automation components are used in explosion-hazardous environments, purge and pressurization is the preferred type of protection. In this field, Pepperl+Fuchs offers absolutely reliable, cost-effective system solutions for protecting electronics from explosive gases.

Expertise

As a market leader in the field of purge and pressurization, Pepperl+Fuchs has mastered this technology down to the last detail. This allows us to not only offer high-end engineering solutions, but also optimal service around the world. From the initial consultation, to engineering and production, right through to a certified system solution—all from a single source.

Experts Around the World for Customized Solutions

For decades, the name Pepperl+Fuchs has been synonymous with high-quality explosion protection products. Our six Solution Engineering Centers (SECs) provide engineering solutions and tailor-made system solutions for any customer application anywhere in the world.



One-Stop Shop for the Right Solution—Every Time

In all major locations, Pepperl+Fuchs’ SECs offer expert support for companies of all sizes and from all industries. Qualified experts always have the right solution for even the most demanding applications. From small single-unit production to customized system solutions with Ex certification and documentation—our SEC specialists offer everything from a single source, always directly on site.

Locations Around the World

With six SECs worldwide, Pepperl+Fuchs ensures that a team of experts is always nearby. Three of the centers cover North America and Europe. Optimal support is also available in the Asia-Pacific region: with three SECs located in China, India, and Australia, we also offer our expertise and top-quality service in this part of the world.

In-depth knowledge of explosion protection and many years of experience in project planning form the basis for developing complete, tailor-made solutions for hazardous areas, such as Zone 1, Zone 2, Div. 1, and Div. 2, in a wide range of protection methods, including Ex e, Ex d, and Ex p. The housings required for such applications, which are made from stainless steel (AISI 316L), degree of protection IP66/Type 4X, electropolished or aluminum, are also manufactured in our SECs.





The Exact Specification for Every Requirement

There are a number of directives and regulations that must be observed to ensure that process plants operate safely and efficiently. Pepperl+Fuchs' SEC experts support customers from the initial planning steps all the way through to the commissioning of new plants. An exact specification is created on the basis of the environmental conditions, the requirements of the application, and the relevant safety standards. This is then developed into a solution in close consultation with the customer, ensuring projects are handled efficiently and delivered quickly.



Optimal Solutions, Including Certification

Each solution is precisely tailored to the requirements, with even the smallest details being taken into account. Once this process is over, the customer receives a complete system that has all relevant approvals. Comprehensive documentation of all components is also included.



Production and Commissioning

Highly qualified experts install the selected components in suitable housing designs. Customers also receive optimal support from the project team at all times during the subsequent acceptance tests. This allows for quick commissioning and ensures that the solution operates safely. The SECs also provide logistical support for optimal packaging and storage, as well as for shipping and customs, ensuring that the system is fully functional once it reaches its operating location.

Your automation, our passion.

Explosion Protection

- Intrinsic Safety Barriers
- Signal Conditioners
- FieldConnex® Fieldbus
- Remote I/O Systems
- Electrical Ex Equipment
- Purge and Pressurization
- Industrial HMI
- Mobile Computing and Communications
- HART Interface Solutions
- Surge Protection
- Wireless Solutions
- Level Measurement

Industrial Sensors

- Proximity Sensors
- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- Fieldbus Modules
- AS-Interface
- Identification Systems
- Displays and Signal Processing
- Connectivity