

Reliable Everywhere.

Trusted protection customized for
your solutions.

Global Purge and
Pressurization Solutions



Your automation, our passion.

 **PEPPERL+FUCHS**

“Safety First!” for Process Industries

“Safety first!” As the global leader and pioneer in electrical explosion protection, safety is our top priority. We protect and connect the global process industry with our products and solutions across all types of hazardous area protection and for a wide range of applications.



World-Leading Innovative Products

Technology leaders



Dedicated Local Support

Over 80 offices globally



Global Warranty

Products are supported worldwide



Global Hazardous Area Expertise

Local approvals



Leader in Safety

Live and work safe



Reliable Long-Term Partner

Supporting customers for over 70 years



Meets Global Quality Standards

We manufacture what we design



Distribution Centers

Products delivered directly to you on time



Oil and Gas



Chemical Industry



Pharmaceuticals



Power Industry



Water and Wastewater



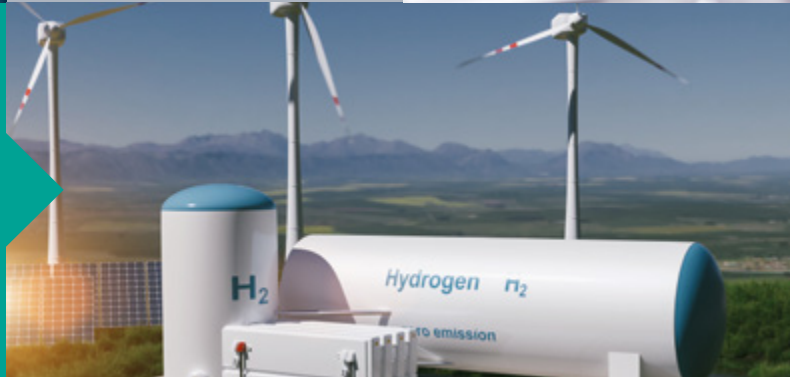
Offshore and Marine



Food Industry



Hydrogen



Simple and Reliable Protection for Today's Global Automation Market

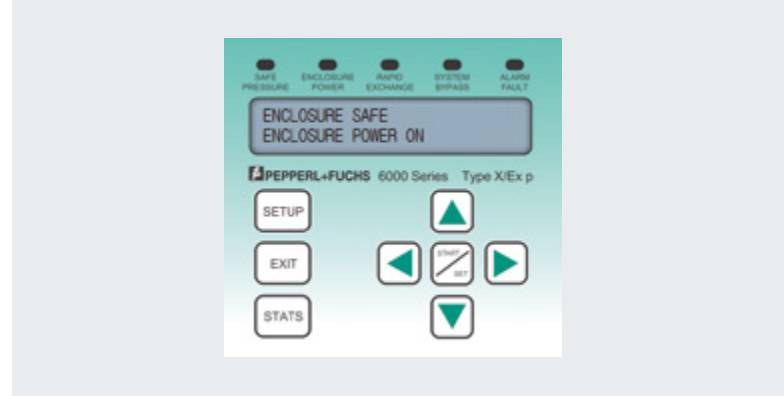
Bebco EPS® purge and pressurization by Pepperl+Fuchs is a household name in the process automation industry. As the leaders in Purging Technology®, we manufacture innovative solutions that are remarkably simple to use and will easily handle just about any application. Pepperl+Fuchs offers a full range of purge and pressurization equipment to meet the needs of your application. Another benefit of purging and pressurization is use of the standard Type 4/12 enclosure as the protected enclosure. This saves money, weight, and space over explosionproof methods. Need a certified solution? The Pepperl+Fuchs Systems and Solutions group can also design custom, certified enclosure solutions.

<p>Purge and pressurization competence in every region of the world</p>		<p>Thousands of solutions delivered</p>	
<p>State-of-the-art solutions based on more than 25 years of experience—a family of automatic purge and pressurization systems that make hazardous location protection easy</p>		<p>Technical support—anywhere in the world</p>	
	<p>Easy integration—compact, low-profile designs that can be internally or externally mounted</p>	<p>ATEX 2014/34/EU NFPA 496 IECEX ISA 12.4</p> 	<p>Purge and pressurization systems designed according to ATEX Directive 2014/34/EU, NFPA 496, IECEX, and ISA 12.4 standards</p>
<p>Automatic temperature and leakage control and alarming</p>		<p>User interface with programming to meet most users' demands</p>	

System Components— Performance in Every Detail

Control Unit

The control unit is the main component in a purge and pressurization system. Available as either an internal or external mounted component, the control unit provides the essential functions to operate the purge and pressurization of the enclosure. The Bebcos EPS portfolio includes fully automatic and manual systems.



Vent

The vent functions as a simple pressure-relief device that allows gas to exit the enclosure during a purge cycle and provides a seal when the enclosure is pressurized. Our vents are gravity controlled and work based on the mechanical movement of springs in response to flow rate pressure. We offer the only vent in the industry that digitally monitors the flow rate and pressure and uses these values to automatically calculate the purge time.



Valve/Manifold

A valve or manifold controls the flow of air or protective gas to the enclosure. An automatic system allows the use of a manifold to control purging flow, pressurization flow, and cooling flow and can compensate for pressure loss.



Enclosure

The enclosure is simply the container that houses the equipment that is protected by the purging and pressurizing cycles. Enclosures are available in many sizes with customizable configurations. Choose from a single enclosure or multiple enclosures for your system with interconnecting piping or cable path.



Revolutionizing Protection

The Bebcó EPS 7500 Series sets a new standard for global purge and pressurization solutions. It offers the features of an advanced system in a cost-effective, compact housing. Engineered for simplicity, the 7500 Series delivers the features needed for reliable protection in Class I or Class II, Div. 2 and Zone 2/22 hazardous locations. In addition to providing purge and pressurization, it also continuously monitors enclosure conditions, makes automatic adjustments, and provides an output alarm for reliable protection—all in a low-cost, streamlined solution.



Product Details

- Global certifications
- Low cost, compact design, easy to use
- Universal power: AC or DC
- Large, multi-feature touch display with all-digital setup
- Backlit LCD, vertical or horizontal orientation
- Bar graph for pressure and flow, LEDs for visual indication
- Easy setup with preset purge programs
- Automatic pressure compensation with digital manifold
- User-configurable alarm contact
- Compact, marine-grade aluminum powder-coated housing
- External or panel mount

Technical Data

Hazardous environment	Class I or Class II, Div. 2 to non-hazardous; Zone 2/22 to non-hazardous
Approvals	UL, cULus, IECEx, ATEX, CCC, and others
Size	5.9 × 4 × 2 in (149 × 97 × 48 mm)
Weight	Appx. 1.56 lb (0.7 kg)
Material	A380, A356, or 6061-T6 aluminum/Type 4X
Degree of protection	IP66
Operating temperature	–40 ... +122 °F (–40 ... +50 °C) at T6 –40 ... +149 °F (–40 ... +65 °C) at T5 –40 ... +158 °F (–40 ... +70 °C) at T4
Inputs/Outputs	Pressure/enclosure contact, alarm contact, automatic purge valve
Rated voltage	AC: 90 ... 250 V/50 ... 60 Hz DC: 20 ... 30 V

Compact and Versatile Protection

The Bebcó EPS 5500 Series was engineered to provide a global, all-in-one solution for Type Z/Ex pzc purge applications. With many of the same features as our 6000 Series, the 5500 Series provides a complete solution for Division 2 or Zone 2/22 hazardous operations in a small, compact design. Combine this with fully automatic temperature and pressure control, and it ranks among the most versatile purge systems on the market.



Product Details

- Global certification conforms to ATEX, IECEx, NFPA 496
- Single unit certified for gas or dust applications
- Completely automatic control unit provides purge, power, and monitoring to enclosure
- Automatic Rapid Exchange® for temperature control and leak compensation
- 2 RTD inputs for simple temperature monitoring and control
- 5 preset programs allow easy implementation without extensive technical knowledge
- User interface rotates for horizontal or vertical mounting
- 2-line, intrinsically safe, backlit LCD programming screen
- 100 % mechanical vent, no cable required
- Internal and external mounting capabilities
- Flexible vent design for different flow rates
- System bypass feature

Technical Data

Hazardous environment	Class I or Class II, Div. 2 to non-hazardous; Zone 2/22 to non-hazardous
Approvals	UL, cULus, IECEx, ATEX, CCC, and others
Size	6.5 × 4.9 × 3.5 in (165 × 124 × 90 mm)
Weight	6 lb (2.7 kg)
Material	316 stainless steel/Type 4X
Degree of protection	IP66
Operating temperature	−4 ... +140 °F (−20 ... +60 °C)
Inputs/Outputs	Temperature, bypass/enclosure contact, alarm contact, automatic purge valve
Rated voltage	AC: 90 ... 264 V/48 ... 62 Hz DC: 20 ... 30 V

Cutting-Edge Technology for Dependable Protection

The Bebcó EPS 6000 Series is the most advanced Type X/Ex pxb purge system on the market. Designed as the complete solution for Division 1 or Zone 1/21 hazardous operations, this stainless steel unit contains the controller, pneumatics, electrical I/O, and programming interface in one sleek, fully automatic package. With an intuitive user interface that allows you to configure the system to meet your specific application needs, the 6000 Series provides reliable protection in the most demanding applications.



Product Details

- Global certifications
- Single unit certified for gas and dust applications
- Automatic setup with menu-driven configuration
- Automatic Rapid Exchange® for temperature control and leak compensation
- Bypass function for easy maintenance and commissioning
- Digital pressure relief vent with flow and pressure monitoring
- User interface rotates for horizontal or vertical mounting
- 2-line, intrinsically safe, backlit LCD programming screen
- Automatic power shutdown controls power to enclosure during system failure
- Available in a component kit for easy and clean integration into OEM applications

Technical Data

Hazardous environment	Class I or Class II, Div. 1 to non-hazardous; Zone 1/21 to non-hazardous
Approvals	ATEX, UL, cULus, IECEx, CCC, and others
Size	7.2 × 14.45 × 6 in (183 × 367.5 × 152.5 mm)
Weight	25 lb (11.4 kg)
Material	316L stainless steel/Type 4X
Degree of protection	IP66
Operating temperature	-4 ... +140 °F (-20 ... +60 °C)
Inputs/Outputs	Inputs (4), temperature, vents (2)/enclosure contact, auxiliary (2), automatic purge valve
Rated voltage	AC: 90 ... 264 V/48 ... 62 Hz DC: 20 ... 30 V

Engineered for Simplicity

The Bebcó EPS 6500 Series Ex pxb purge and pressurization system provides reliable protection for operating general-purpose electrical equipment in Zone 1/21 explosion hazardous locations. Utilizing the flexible Ex p protection method, the 6500 Series is a fully automatic system. It will purge a common enclosure of hazardous gas or dust and maintain a positive pressure, reducing the classification within the protected enclosure from Zone 1/21 to a non-hazardous area.



Product Details

- ATEX/IECEX Zone 1/21 certifications
- Certified to SIL 2 acc. to IEC 61508
- User-friendly, easy programming
- Automatic control of power, pneumatics, and temperature/pressure monitoring
- Universal power: AC or DC
- Intrinsically safe LCD touch pad user interface allows configuration and monitoring during operation
- Remote monitoring capabilities via RS-485/HART and Bluetooth® connection
- Preset programs for simple configuration
- Digital pressure relief vent for various flow rates and continuous flow/dilution
- Dilution control and monitoring for analyzers
- Compact design with panel mounts or direct mounts available

Technical Data

Hazardous environment	Zone 1/21 to non-hazardous
Approvals	ATEX, IECEx, CCC, SIL 2, and others
Size	Standard external: 5.9 × 5.9 × 5.7 in (150 × 150 × 145 mm)
Weight	Appx. 11 lb (5 kg)
Material	316L stainless steel
Degree of protection	IP66
Operating temperature	−4 ... +140 °F (−20 ... +60 °C)
Inputs/Outputs	Input (1), temperature, vent (1)/enclosure contact, auxiliary, RS-485, digital and proportional valve
Rated voltage	AC: 100 ... 240 V/48 ... 62 Hz DC: 20 ... 30 V
Max. Volume	12.75 m ³

Reliable Operation for Specialized Applications

The Bebcó EPS Enviro-Line pressurization system provides a straightforward and simple solution for eliminating dirty, dusty, and corrosive environments in non-hazardous locations. In this way, the Enviro-Line helps extend the life of the enclosure and expensive electrical equipment and instrumentation. And because it is designed specifically for non-hazardous areas, there is no need to use certified pressurization systems intended for use in hazardous areas.



Product Details

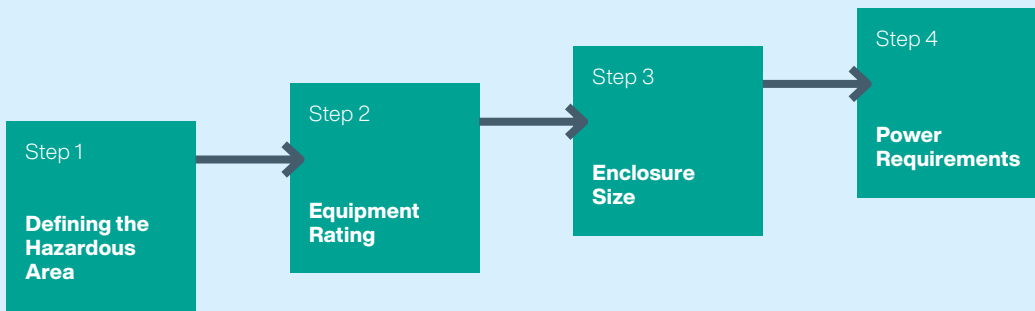
- Cost-effective approach for non-hazardous applications
- Kit includes all required hardware and tubing
- Optional general-purpose switch
- Ensures longer electrical equipment life
- Keeps caustic, corrosive, and dusty environment outside of enclosure

Technical Data

Hazardous environment	Non-hazardous
Size	8 × 7 × 6 in (203 × 178 × 152.5 mm)
Weight	6 lb (2.7 kg)
Material	Mounting Flange: 316L stainless steel Regulator Body: Zinc with enamel finish
Operating temperature	-20 ... +120 °F (-29 ... +49 °C)

Purge Selection Process: Get Your Application up and Running

When it comes to finding a purge and pressurization solution for today's demanding hazardous area applications, choosing the right system will save you time and money. With the Pepperl+Fuchs extensive product offering of globally certified purge systems, we make it easy to specify and select the right solution to get your process up and running.



Applications by Hazardous Area

Model	Class/Div., Zone	Certifications	Type	Group	Equipment
7500 Series	2, 2/22	ATEX, IECEx, UL, cULus, CSA, CCC	Ex pzc/Type Z	IIC/A-D, F, G	General purpose
5500 Series	2, 2/22	ATEX, IECEx, UL, cULus, CSA, CCC	Ex pzc/Type Z	IIC/A-D, F, G	General purpose
6000 Series	1, 1/21	ATEX, IECEx, UL, cULus, CSA, CCC	Ex pxb/Type X	IIC/A-D, E, G	General purpose
6500 Series	1, 1/21	ATEX, IECEx, CCC	Ex pxb, pyb	IIC	General purpose

Hazardous Area Rating

The area classification determines the type of purge protection level needed and specifies which system is right for your applications.

Equipment inside the Enclosure

The hazardous rating on the equipment inside the enclosure determines which purge system to use for the particular application. The temperature specifications on the equipment also play an important role in determining the control and monitoring functions your purge system requires.

Enclosure Specification

The size of the enclosure and the need for certain features, such as doors, windows, or accessories, will determine which purge system and vent configuration are appropriate for the particular application. When purging multiple enclosures, the required air volume and flow for the overall solution must also be considered.

Power Requirements

Based on the power requirements needed for a given application, evaluation of required voltage (AC/DC) and contact ratings is required. Further, certain area classifications require systems that shut down power to the enclosure in the event of system or pressure failure.



A product configurator is available to select a purge system that's right for your application:
pepperl-fuchs.com/purge

Trusted Protection Customized for Your Solutions

Purge and pressurization technology is a modern, reliable, and simple type of explosion protection that protects and monitors electrical solutions in hazardous areas while also extending equipment longevity and overall site safety. With the product range and household name **Bebco EPS®**, Pepperl+Fuchs stands for more than 25 years of knowledge and experience in designing and engineering such purge and pressurization cabinets.

Pepperl+Fuchs also holds global accreditations to build, certify, and label custom enclosure solutions with NEC, ATEX and IECEx, and other approvals. In combination with local service and support anywhere in the world, Pepperl+Fuchs strives for long-term, reliable partnerships with its customers. By offering all required services and products, customers receive a fully certified and ready-to-use solution from a single source.

The 6000 Series is used in a gas pressure control and metering system and protects the hydrogen analyzer that controls the purity of the hydrogen.



- Fast and easy project flow: Pepperl+Fuchs has more than 25 years of experience in the field of purge and pressurization systems with thousands of solutions delivered
- Global provider of complete solutions: Design, engineering, manufacturing, and final certification from a single source—anywhere in the world
- Peace of mind: Our experienced solutions team will guide your solution through the application process, ensuring project finances and timelines remain under control
- Cost-efficient: Weight savings due to lightweight cabinets
- Reduced complexity: Packaged solutions of predefined and certified cabinets
- Fits any application: Certified complete solutions ready for installation directly out of the Solution Engineering Centers (SECs)
- Simplified processes: Adapting existing solutions from non-hazardous to hazardous areas
- High plant availability: Feedback loop on the status of the type of protection, automatic temperature, and leakage control and alarming

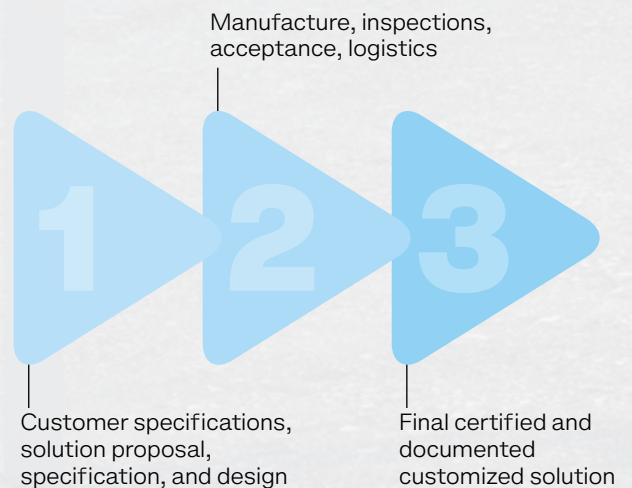
The 5500 Series protects the variable frequency drive that controls the motor speed in a turbine exhaust burner.



Customized Solutions: Designed to Meet Your Explosion Protection Needs

Plants in the process industry present increasingly complex challenges, not least in terms of explosion protection. Numerous legal regulations must be complied with, after all, people and the environment need to be protected even more so than plant and machinery. Not surprisingly, these changes are impacting the types of problems and tasks that companies face. To ensure that companies can continue to focus on their own core business, customized solutions from Pepperl+Fuchs are developed in collaboration with our customers and meet the global approval standards of a trusted partner.

3 Steps to Your Next Solution





Solutions Tailored to Your Needs

We support you with individual solutions and accompany you in partnership on the path to a digital future. For the demanding requirements of the process industry, Pepperl+Fuchs has therefore established special Solution Engineering Centers (SECs) worldwide, where experienced experts plan, develop, and design customer-specific solutions on a daily basis. Here, customers receive ready-to-use complete solutions from a single source—in all explosion protection types, including certification for hazardous areas.



More information:
pepperl-fuchs.com/pf-solutions

Your automation, our passion.

Explosion Protection

- Intrinsic Safety Barriers
- Signal Conditioners
- FieldConnex® Fieldbus Infrastructure
- Remote I/O Systems
- Electrical Explosion Protection Equipment
- Purge and Pressurization Systems
- HMI Systems
- 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
- Vibration Monitoring
- Industrial Ethernet
- AS-Interface
- IO-Link
- Identification Systems
- Displays and Signal Processing
- Connectivity

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Pepperl+Fuchs Quality

Download our latest policy here:

www.pepperl-fuchs.com/quality