PRESS KIT SPS 2019

You can find Pepperl+Fuchs in hall 7A, booth 330.

Our press releases:

Company Profile

Process Automation

1. **Innovative System Solutions for Process Automation - GRP enclosure for electrical explosion protection**

2. **Box Thin Client BTC14**

3. **Pepperl + Fuchs releases the 6100 Series Motor Purge**

4. **ecom introduces New Smartphone and Digital Services for Hazardous Areas**

We would be very pleased if you continue publishing our press reports in your magazine. Should you have any question or if you are interested in a special subject, please do not hesitate to contact us.

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November 2019

PEPPERL+FUCHS

Your automation, our passion.

Company Profile Pepperl+Fuchs

Location Mannheim

Location Singapore

Location Twinsburg

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Managing Directors:	Dr.-Ing. Gunther Kegel, Werner Guthier, Mehmet Hatiboglu
Year of foundation:	1945
Reporting year 2017:	
Turnover:	670 Mill. Euro (consolidated external sales)
Employees:	6.200 worldwide
Divisions:	Factory Automation, Process Automation
Manufacturing plants:	Germany, USA, Singapore, Hungary, India, Indonesia, Vietnam, Czech Republic
Subsidiaries:	more than 40 companies on 6 continents

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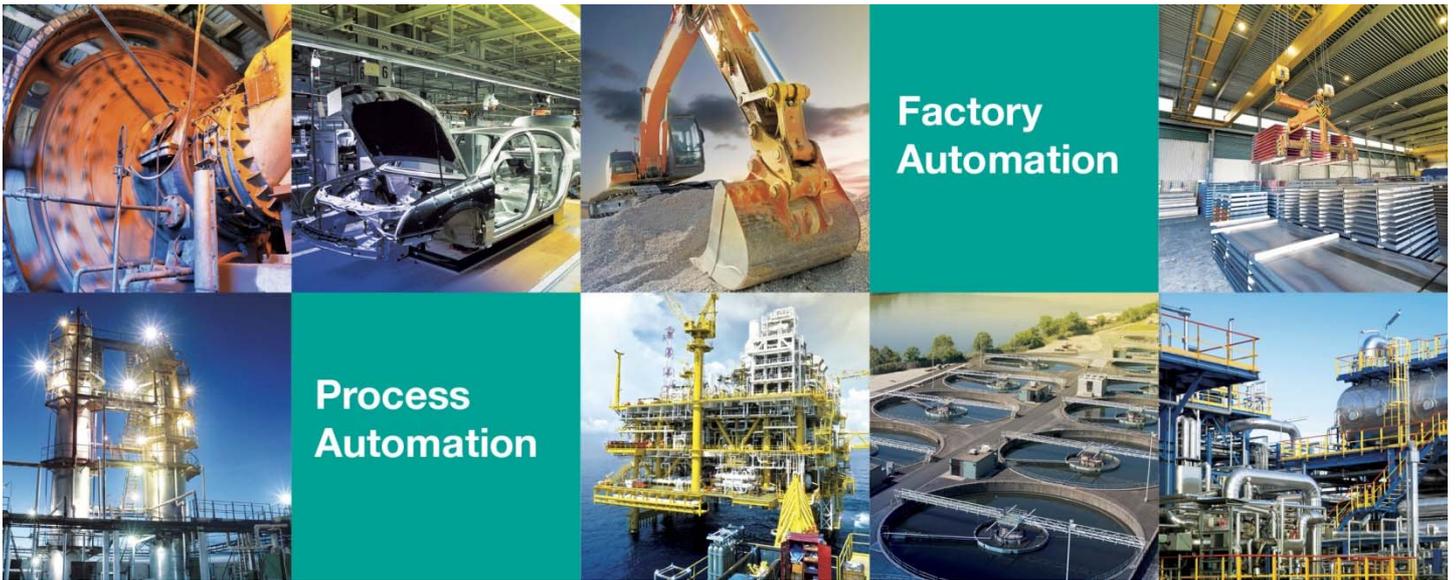
Main target markets:	**Factory Automation:** machine building industry, automotive industry, material handling and logistics, printing and paper industry, packaging machinery, process equipment, door/gate/elevator construction, textile industry, renewable energies
	Process Automation: chemical and pharmaceutical industry, oil and gas industry including offshore and marine, power industries, water and waste water
Core products	Components for the **Factory Automation:** the sensor types inductive, capacitive, ultrasonic, photoelectric, rotary encoders, identifications systems, barcodes, data-matrix-codes, vision sensors
	Components and solutions for the **Process Automation:** interface modules, remote I/O systems, fieldbus infrastructure techniques completed by based around enclosures in the increased safety, intrinsic safety and flameproof protecting classes with approvals for the integration of a wide range of electrical apparatus, level control devices, Ex-operating terminal systems, electrical explosion protection equipment, Ex-IPCs, seminars teachware and services

Mannheim, November 2019

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At a glance:

- Using sensor technology from factory automation in hazardous areas
- Pressure-resistant enclosure with integrated sensor technology
- GRP enclosure for electrical explosion protection in process automation
- Innovative ideas for simple planning and installation

Innovative System Solutions for Process Automation

Finding solutions to complex problems requires considerable expertise, particularly where hazardous areas are concerned. Whether using sensor technology from industrial applications or highly flexible enclosures for explosion protection—only those with the requisite knowledge of the relevant subject area can offer the ideal customer solution. Pepperl+Fuchs's many years of experience in factory automation and process automation enable the company to adapt to customer requirements and bring the right products on the market.

Using Sensors from Factory Automation in Hazardous Areas

The rising level of automation in the process industry is increasing demand for solutions that use sensor technology—and hazardous areas are no exception. Pepperl+Fuchs is now offering its customers more and more **customized** solutions for Zones 1 and 21 that feature sensor technology from factory automation and can be used in a huge range of applications. From monitoring warehouses and rooms to use in areas focusing on personal and environmental protection, huge developments are being made in the automation of explosion protection. Sensors from Pepperl+Fuchs are housed in pressure-resistant enclosures,

allowing processes to be further automated even under harsh conditions. For example, the latest pilot project involves using the R2000 photoelectric scanner in Zone 1 to safely fill up tankers with chemical substances.

Figure 2: MAC0008101_(RFID sensor in Ex d enclosure)

Highly Flexible GRP Enclosure Series for Specific Application Requirements

The GR series of GRP enclosures caters perfectly to the needs of electrical installation in process plants. The products in this series are designed to offer maximum flexibility for a wide range of applications. Many small details make it easier to plan for specific customer demands. The sophisticated mounting grid makes the additional mounting base obsolete, while also enabling terminals and switching elements to be planned and installed quickly and easily. It also means that any DIN mounting rails can be mounted using self-tapping screws. An innovative spacer system allows components to be installed at different levels within the enclosure. Different enclosure sizes and depths ensure that the enclosure series with IP66 expanded silicone seal offers unlimited flexibility. The series of enclosures can be used in environments up to -60 °C in Zones 1/21 and Zones 2/22.

Figure 1: MAC0007600_(GR series of Ex e enclosures)

GR enclosure series with type of protection Ex e

RFID sensor in Ex d enclosure

BTC14 Box Thin Client

The industrial box thin clients from Pepperl+Fuchs are a reliable and rugged generation of computers for visualizing process information. They have been specially developed for use in harsh conditions and 24/7 operation in industrial environments.

Designed to withstand high temperatures, shocks, and vibrations over long periods, the new **BTC14**, and the already familiar thin clients **BTC12**—designed for dual-monitor applications—and **BTC01**—the first quad-monitor generation,

The BTC14 has four digital **uniform DisplayPorts®**, enabling processes to be visualized on up to four Ultra-HD (4K) screens, thus giving an optimal overview of all information. Thanks to additional mounting kits and its rugged design, the BTC14 can be installed in a hugely varied number of ways. The long-term availability and the modern computer platform make the BTC14 future-proof. The preinstalled Pepperl+Fuchs VisuNet RM Shell 5 firmware simplifies both virtualizing host systems and performing quick and intuitive configuration.

The Thin Client portfolio is rounded off by the innovative VisuNet Control Center management tool, which enables efficient and centralized management of all Thin Client devices when used with the RM Shell 5 firmware: from the BTCs in the control room and production-related workstations to remote monitors in the field in Ex Zone 1/21.

Figure 1: Front view of the BTC14

Figure 2: Rear view BTC14

Key words:	BTC14, Box Thin Client, RM Shell 5, firmware, industrial design, future-proof, long-term availability, central management, quad monitors, 4K resolution
Author:	Natalie Hangel
Characters:	1.346, including spaces
Characters in summary:	246, including spaces
Images:	MAC0009221
	MAC0009222
	(from Cumulus image database)

November 2019

No charge when used in publications.

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Pepperl+Fuchs Releases the 6100 Series Motor Purge

The new motor purge/large enclosure system is the latest member of Pepperl+Fuchs' Bebco® EPS purge and pressurization family.

Twinsburg, OH (October 2019)—Pepperl+Fuchs, a world leader in process automation, introduces a Bebco EPS® purge and pressurization system designed specifically for use with large motors or large enclosures in Zone 1 hazardous areas. The 6100 series purge and pressurization system can purge an enclosure over 450 cubic feet (12.2 cubic meters), making it the largest purging system available from Pepperl+Fuchs. The 6100 series system is perfect for applications in the chemical/petrochemical and oil and gas industries.

The 6100 series is a fully automatic system that does not require an operator to initiate purging or pressurization. It offers optional temperature sensors that can be mounted around the motor for alarm notification or cooling. Additionally, there is automatic pressure compensation for excess leakage from the motor.

The 6100 system consists of a control unit, vent, low pressure sensor, and optional temperature sensors. The control unit allows users to configure the system for size of motor, temperature switch points, pressure switch points for leakage compensation and shutoff pressure, extra output for control or alarm, two selectable intrinsically safe inputs for various actions, and up to three temperature sensor inputs that can monitor various points within the motor housing. The intrinsically safe user-interface can also be mounted in a separate enclosure near an operator for quick access and easy system monitoring.

6100 series motor purge and pressurization system features:

- Certified for ATEX and IECEx Zone 1
- Fully automatic
- Maximum flow rate of 14,000 l/min

- Intrinsically safe user-interface for system programming and monitoring
- Control unit monitors system operation and controls enclosure power
- Auxiliary contact outputs for alarm or control
- Multiple temperature inputs for monitoring and control
- Automatic pressure compensation for excess leakage from motor

The intrinsically safe pressure sensor provides an accurate enclosure pressure reading for safe operation within the hazardous area. The pressure sensor—which can measure internal pressure from 0 to 25 mbar—can be remotely located at the motor's low pressure section for correct, safe motor pressure readings.

The EPV-6100 vent can be ordered to detect various flows for purging and then feedback the signal to the 6100 series control unit to start the purge timer. There are five flow rates to choose from (14,000 l/min maximum) to meet any application requirement in large motors or enclosures.

Additional features of the 6100 series system include system bypass, manual enclosure power on/off, temperature activation of purging for cooling purposes, and delay of power shutdown upon loss of pressure for pressure correction for shutdown procedures.
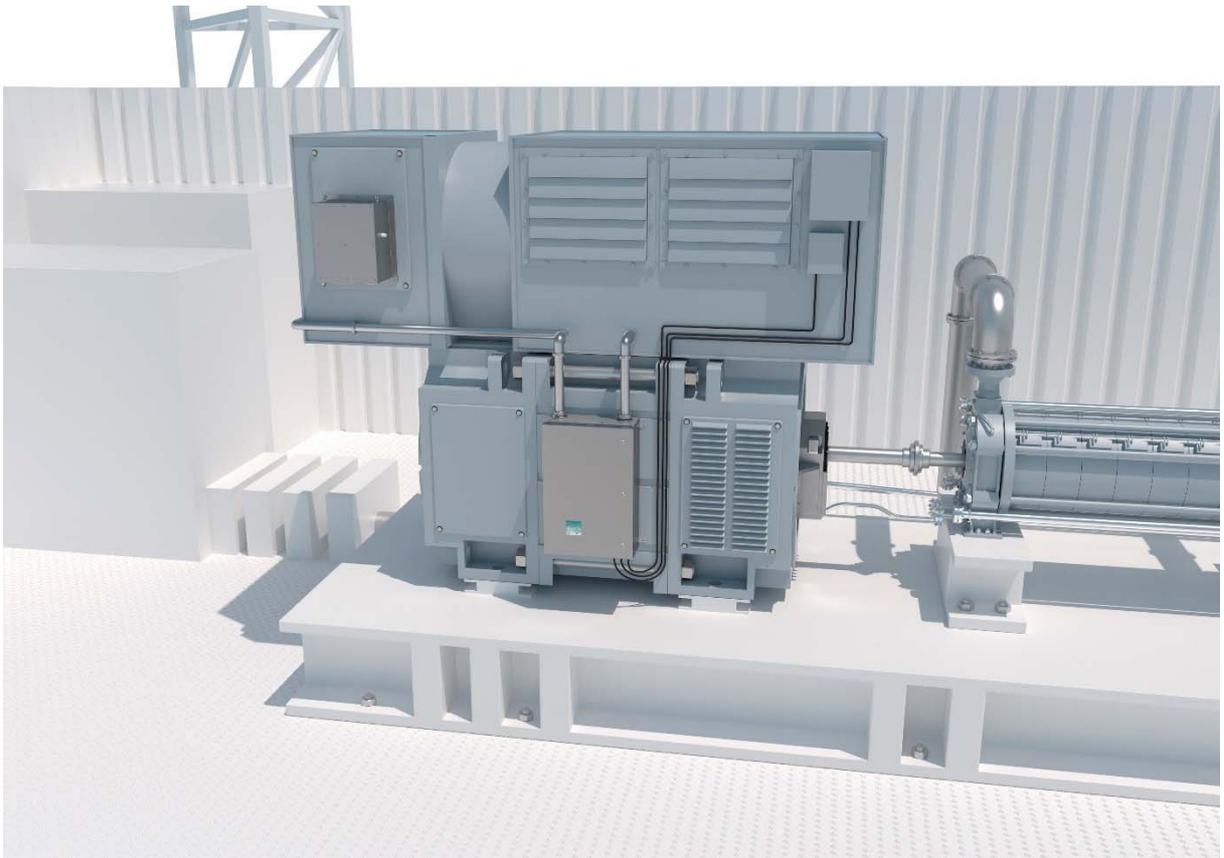
Author: Kim Stover

Characters: 3.406, with spaces
Characters Summary: 127, with spaces

November 2019

For use free-of-charge in publications.

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At a glance:

- New, self-developed Smart-Ex® 02 smartphone for Zone 1/21 and Div. 1
- Winner of the German Design Award
- New Digital Products and Services division

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ecom Introduces New Smartphone and Digital Services for Hazardous Areas

At SPS in Nuremberg (hall 7A, booth 330), the Pepperl+Fuchs brand ecom will introduce the new generation of its intrinsically safe Smart-Ex® 4G/LTE Android smartphone series and will provide a first glimpse at the new Digital Products and Services product division.

With a large 12.7 cm (5") display, powerful features, good ergonomics, and an optimized accessory concept, the newly developed Smart-Ex 02 is the most advanced intrinsically safe smartphone for Zone 1/21 and Div. 1. With the latest Android 9 operating system, the smartphone is especially fast, secure, and efficient. The Smart-Ex 02 supports 21 different LTE frequency bands and is delivered without a sim lock. Global Ex and approval certifications enable worldwide use and global rollouts. The Smart-Ex 02 recently won the German Design Award in the Excellent Product Design category for its outstanding design quality. The German Design Award from the German Design Council is one of the most recognized international design awards and honors top-class submissions in product and communication design.

Applicable in the Most Extreme Conditions

Designed for an extended temperature range from -20 °C to +60 °C, the Smart-Ex 02 can be operated in extreme conditions. A strong, easily replaceable battery with exceptional 4400

mAH power for 24-hour operation prevents unwanted breakdowns during work in extensive industrial plants. A magnetic USB port protects against wear and tear, damage to PINs, and loose USB connections. The Smart-Ex 02 operates intuitively: push-to-talk (PTT) and alarm buttons, volume control, and the camera release button are easy to operate—even with gloves—thanks to their ergonomic design and handy layout.

Configurable Android keys are available for individual assignment, while dedicated keys for PTT and alarm functions ensure swift communication in case of emergency. A multi-functional mounting plate concept (belt clip, hand strap, charger, docking station) ensures easy carrying, mounting, and charging. Complemented by innovative peripherals such as the intrinsically safe CUBE 800 thermal video camera and the explosion-proof Smart-Ex® Watch 01, the Smart-Ex 02 supports the mobile worker in a wide range of tasks and provides future-proof solutions.

New Product Division: Digital Products and Services

The new Digital Products and Services division enables the staging, management, and real-time monitoring of the Smart-Ex 02 and other mobile devices from ecom, such as the Ex-Handy 10 and the ATEX/IECEx Zone 1 / Div. 1 certified Tab-Ex® 02 industrial tablet. The new product division combines automated pre-configuration during device manufacturing, mobile device management, and device analytics. If desired, the solution can be used as a full-fledged enterprise mobility management system. This helps IT departments eliminate time-consuming tasks and provides even more security during operation. Mobile devices can not only be set up and managed easily, but they can also be updated at any time (over-the-air). Security-critical processes become visible through the analysis of historical data.

New from ecom: the explosion-proof 4G/LTE Android smartphone Smart-Ex 02

The Smart-Ex 02 is easy to operate: push-to-talk and alarm buttons, volume control, and the camera release button are easy to operate—even while wearing gloves—due to their ergonomic design and handy layout.

Smart-Ex 02

Key words: SPS, Smart-Ex 02, Digital Products and Services, Smartphone, Industrie 4.0, Smart-Ex Watch 01, Cube 800, Tab-Ex 02, Ex-Handy 10, explosion-proof

Author: Christian Uhl

Characters: 3.100, with spaces

Characters Summary: 265, with spaces

November 2019

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