Enabling flexibility.
Eliminating complexity.
Delivering unrivaled performance.

VisuNet GXP for Life Science Applications
in Zone 1/21

Your automation, our passion.

PEPPERL+FUCHS

Designed for the Life Science Industry: The New Thin-Client Generation for Hazardous Areas

The new VisuNet GXP remote monitor from Pepperl+Fuchs brings innovative features to hazardous areas with a compact, modular design that allows for easy setup and maintenance. But the GXP is much more: it is also a pioneer for human-machine interfaces that makes optimal use of the opportunities that Industry 4.0 has to offer.


Compact, Modular Design for Field Maintainability

A key advantage of the VisuNet GXP is its modular design. The three main components: display, power supply, and computer. The computer is available either as thin-client or as PC technology: the thin-client version is a closed system that comes with the RM Shell firmware. It enables remote access to distant computers. Image transmission is operated via network technology. The PC version offers an open Wondows operating system where customers can install their own applications.

Due to the modular concept, operators can replace components independently in the event of a fault. This makes field maintenance easy and reduces costs associated with downtime.

Optimized for the Life Science Sector

The new VisuNet GXP is tailored especially to meet the high demands of the life science industry and the strict requirements of good manufacturing practices (GMP). With its stainless-steel housing, the thin-client solution is resistant to all chemicals and detergents commonly found in this sector. There are no gaps where liquid, dirt, or bacteria can accumulate, and a continuous glass front display supports optimal cleaning.
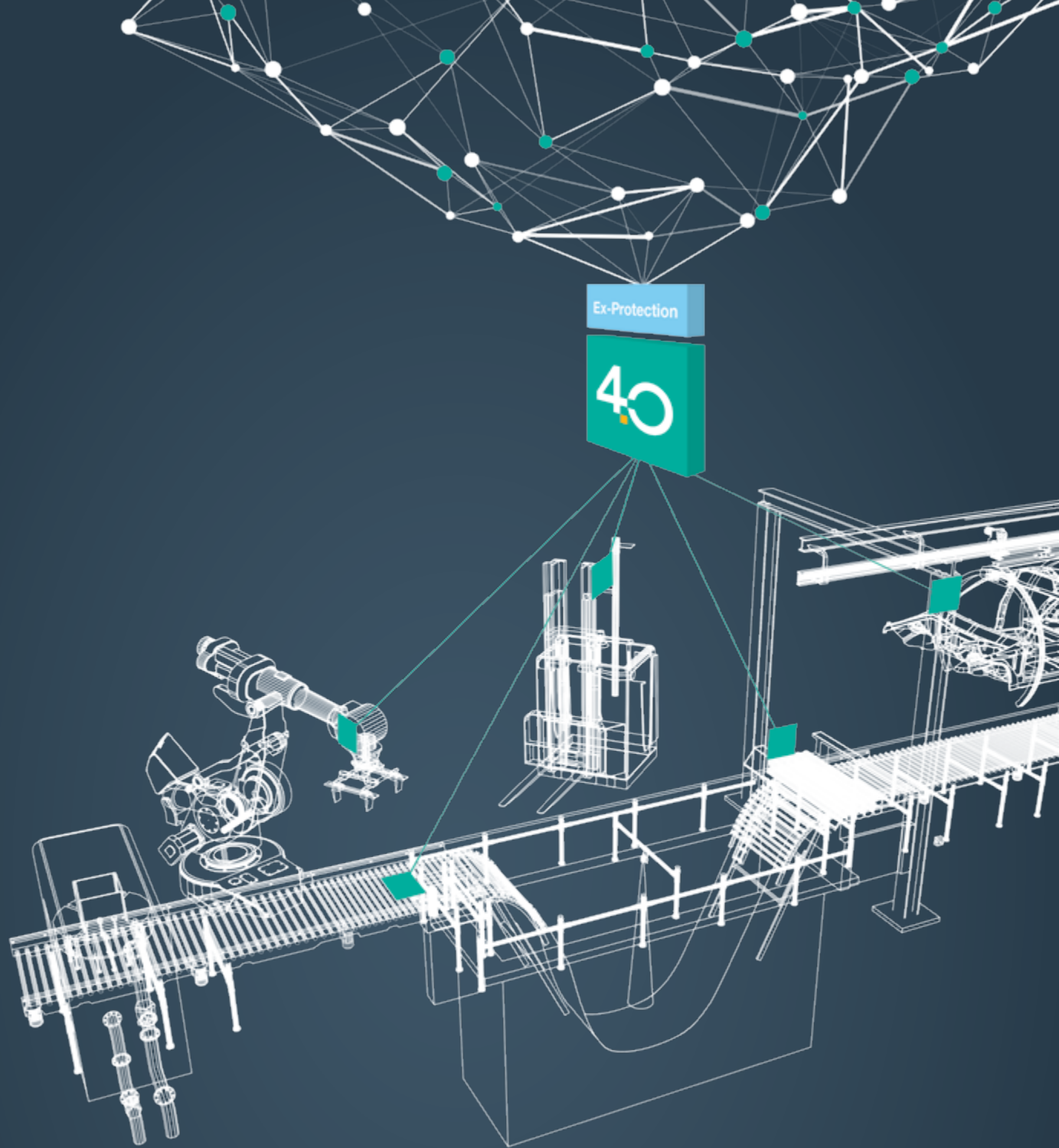
Industry 4.0—New Challenges, New Opportunities

At Pepperl+Fuchs, Industry 4.0 is defined as a complete network of production systems. These systems are characterized by data exchange within the production process but also with higher-level information systems beyond the company boundaries.

This networking of all automation components requires new technologies that enable direct horizontal and vertical access to the information of the production system—all the way down to field devices in explosion-hazardous areas. This means communication along the process chain, in higher-level information systems such as MES or ERP, and, at the same time, direct access down to field level.

The new Pepperl+Fuchs VisuNet GXP with innovative RM Shell 5 lets you harness the power of Industry 4.0. For the first time, the smart human-machine interface system enables communication within the production process and direct access to the sensor across all hierarchical levels, including in explosion-hazardous areas.

Display Unit—Extra Large and Touch Optimized

The 21.5-inch full-HD display in 16:9 widescreen format allows process control software to be displayed in its native resolution. To minimize reflection and enhance picture quality, the screen is optically bonded. Behind extremely durable, scratch-resistant safety glass is a capacitive multitouch sensor that enables the use of touch-optimized user interfaces similar to smartphones or tablets. The ten-point multitouch screen has been optimized for use with gloves, and the seamless glass front display ensures that the monitor can withstand the cleaning requirements of the life science industry.

19-Inch Display—Compact and Compatible

In addition to the 21.5-inch screen diagonal, Pepperl+Fuchs has also developed a compact 19-inch version. The new display unit in 5:4 format features a space-saving design and is compatible with the predecessor product line, VisuNet EX1. This allows easy retrofitting of installations, and existing keyboards or barcode readers will fit perfectly—just one example of how VisuNet GXP components are a safe investment.

PC Unit—New, Innovative Solution

With the PC version of the VisuNet GXP, Pepperl+Fuchs has added a new computing unit to its modular HMI system. The solution offers an Intel® quad-core processor and an open Microsoft® Windows® operating system. This allows users to install individual software packages such as SCADA to visualize applications in hazardous areas. A variety of serial interface options, including RS-232, RS-485, and Ethernet, enable direct communication with the control panel from the hazardous area.

New Interfaces—Large Selection, Optimal Communication

In addition to the new RS-232 and RS-485 interfaces, a redundant Ethernet option is also available. It allows redundant network structures to be set up and sustainably increases the availability of the monitors. The true highlight is the new fiber-optic interface, which is certified according to the latest optical intrinsic safety standards. It allows the monitor to be connected to a standard fiber-optic switch that only has to meet the requirements of laser class 1. Ex op is approval is no longer necessary, which translates to a considerable reduction in infrastructure costs.

Power Supply—Powerful and Extremely Flexible

The power supply is one of the main features of the modular VisuNet GXP. This high-performance unit brings additional flexibility with AC and DC options for a wide range of application requirements. This adaptable power supply is suitable for wall mounting, and it can also be installed directly in the housing or mounted on the thin-client unit (TCU).

Slim Housing, Perfect Design

The VisuNet GXP boasts a superslim, space-saving keyboard and housing that are designed according to GMP directives and constructed to be mechanically robust in clean rooms and hygienic environments. Sleek and smooth, the housing prevents any accumulation of liquids, dirt, or bacteria and resists high pressure and temperature, heavy wash downs, steam jets, and cleaning chemicals.

Flush Mount—Flexible, Space-Saving Mounting

The new VisuNet GXP is the perfect solution for OEMs. The remote monitor can be installed directly in the machine or in switch cabinet doors. The flush, gap-free installation ensures that the surface can be cleaned according to the required guidelines.

Lightweight—Easy to Install

Unlike other Zone 1/21 solutions that are bulky and heavy, the GXP is the lightest in the industry—under 25 kg. This enables easier mounting in different applications with no need for a costly, heavy-duty pedestal. This means it can be installed by only one person, allowing faster and more economical commissioning.

VisuNet RM Shell 5—
Next-Generation Firmware

Each VisuNet GXP Remote Monitor is equipped with RM Shell 5, the latest generation of firmware for our thin-client solutions. Security, reliability, and user-friendliness were the focus in its development. The latest update features a modern Windows® 10 IoT operating system and supports all common remote protocols, including Microsoft® RDP10, VNC, NetC@P, and Citrix Receiver. This makes the RMs fully compatible with both virtualized and conventional workstation-based process control systems.

VisuNet Control Center—Uniquely Efficient

With the new RM Shell 5, Pepperl+Fuchs is offering an even wider range of innovative functions. A special feature of the current version is VisuNet Control Center. For the first time, this additional software makes it possible to manage smart RMs remotely. It is now easier than ever to set up and manage devices in hazardous areas. The firmware is configured, maintained, monitored, supported, and updated from a central workspace via convenient remote access. Engineers no longer have to enter hazardous areas or clean rooms. Intuitive software design and a focus on functions that are relevant to the process industry make systems easier to operate. All this saves time and reduces costs.

VisuNet GXP—
Harnessing the Possibilities of Industry 4.0

The new VisuNet GXP with Shell 5 and the innovative Control Center are examples of what is possible with the Internet of Things: the thin-client solution enables access to process control systems or the MES via Ethernet, ensuring reliable control and monitoring of the automation plant. The RMs can also access the embedded Web browser for commissioning, configuration, or maintenance. The smart human-machine interface system is therefore the perfect solution for helping the process industry utilize the benefits of Industry 4.0.

Highlights

- Modular design: quick and easy assembly and disassembly of the computer, display, and power supply in the field

- Absolute lightest: innovative design brings the world's lightest RM into Zone 1/21 life science applications

- Easy cleaning: tailored to meet GMP requirements in hazardous areas; particularly beneficial for pharmaceutical and fine chemical applications

- Unique display: full HD, 16:9, optically bonded, ten-point, multitouch display increases picture quality, safety, and user-friendliness

- Innovative firmware: combined with RM Shell 5 in a cost-effective thin-client solution for the life science industry

- Smart solution: harnesses the power of Industry 4.0 for the process industry in Zone 1/21

Your automation, our passion.

Explosion Protection

- Intrinsic Safety Barriers
- Signal Conditioners
- Remote I/O Systems
- FieldConnex® Fieldbus
- Electrical Explosion Protection 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

PEPPERL+FUCHS