Instruction Manual

1. Marking

VisuNet GXP Remote Monitor/VisuNet GXP PC RM-GXP1100*/PC-GXP1100*
ATEX certificate: BVS 17 ATEX E 036 X ATEX marking: Ⓔx II 2G Ex eb q ib [ib] IIC T4 Gb Ⓔx II 2D Ex tb [ib] IIIC T85°C Db
IECEx certificate: IECEx BVS 17.0029X IECEx marking: Ex eb q ib [ib] IIC T4 Gb Ex tb [ib] IIIC T85°C Db
CCC certificate: 2021322309003371 CCC marking: Ex eb q ib [ib] IIC T4 Gb Ex tb [ib] IIIC T85°C Db

VisuNet GXP Remote Monitor/VisuNet GXP PC RM-GXP1200*/PC-GXP1200*
ATEX certificate: BVS 17 ATEX E 037 X ATEX marking: Ⓔx II 3G Ex ec q [ib] IIC T4 Gc Ⓔx II 3D Ex tc [ib] IIIC T85°C Dc
IECEx certificate: IECEx BVS 17.0029X IECEx marking: Ex ec q [ib] IIC T4 Gc Ex tc [ib] IIIC T85°C Dc
CCC certificate: 2021322309003371 CCC marking: Ex ec [ib] q IIC T4 Gc Ex tc [ib] IIIC T85°C Dc

The *-marked letters of the type code are placeholders for versions of the device.

For details of the actual type of protection applied, refer to the nameplate of the device.

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2. Target Group, Personnel

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismounting lies with the plant operator.

The personnel must be appropriately trained and qualified in order to carry out mounting, installation, commissioning, operation, maintenance, and dismounting of the device. The trained and qualified personnel must have read and understood the instruction manual.

3. Reference to Further Documentation

Specific processes and instructions in this instruction manual require special provisions to guarantee the safety of the operating personnel.

Observe directives, standards, and national laws applicable to the intended use and the operating location.
Observe Directive 1999/92/EC in relation to hazardous areas.

Observe directives, standards, and national laws applicable to the intended use and the operating location.

The corresponding datasheets, manuals, declarations of conformity, EU-type examination certificates, certificates, and control drawings if applicable (see datasheet) are an integral part of this document. You can find this information under www.pepperl-fuchs.com.

Refer to the relevant EU-type examination certificate to see the relationship between the connected circuit type, the maximum permitted ambient temperature, the temperature class, and the effective inner reactances.

For specific device information such as the year of construction, scan the QR code on the device. As an alternative, enter the serial number in the serial number search at www.pepperl-fuchs.com/device-information.

Due to constant revisions, documentation is subject to permanent change. Please refer only to the most up-to-date version, which can be found under www.pepperl-fuchs.com.

4. Intended Use

The VisuNet GXP is used as an explosion-protected system for controlling, operating and visualizing production and manufacturing processes in hazardous areas zones 1 and 2, ignition group IIC, zone 21 and zone 22 for dust group IIIC according to type designation according to type code.

The device is only approved for appropriate and intended use. Ignoring these instructions will void any warranty and absolve the manufacturer from any liability.

Use the device only within the specified ambient and operating conditions.

The device is designed for a maximum altitude of 2000 m.

Take the intended use of the connected devices from the corresponding documentation.

Take the intended use of the installed devices from the corresponding documentation.

Refer to the corresponding technical data of the installed components for the actual type of protection or any possible restrictions.

The device is an electrical apparatus for hazardous areas.

Devices for which specific conditions of use apply have the X marking at the end of the certificate number.

5. Improper Use

Protection of personnel and the plant is not ensured if the device is not used according to its intended use.

The device is not suitable to separate intrinsically safe circuits from non-intrinsically safe circuits.

6. Specific Conditions of Use

Mount the device in a location with low electrostatic charge.

Equipotential bonding must be achieved along the intrinsically safe circuits.

Individually accessible non-grounded metal parts can become electrostatically charged. The determined capacitance exceeds the required value according to IEC/EN 60079-0. The determined capacitance is specified in the technical data.

Take the intended use of the connected devices from the corresponding documentation.

7. Mounting and Installation

Prior to mounting, installation, and commissioning of the device you should make yourself familiar with the device and carefully read the instruction manual.

Do not stay below the open device. In order to avoid personal injuries or property damage, take appropriate measures for the mounting and maintenance procedures.

Use mounting materials which are suitable to secure the device safely.

Only use accessories specified by the manufacturer.

The device must be disconnected from the power supply prior to installation and maintenance. The power supply may be activated only after all the circuits required for operation have been fully assembled and connected.

Protect the circuit against overvoltage (e. g., lightning).

Supply the device with a power supply that meets the requirements for safety extra-low voltage (SELV) or protective extra-low voltage (PELV).

Do not damage the breather drain.

Do not cover the breather drain.

When connecting intrinsically safe devices with intrinsically safe circuits of associated apparatus, observe the maximum peak values with regard to explosion protection (verification of intrinsic safety). Observe the standards IEC/EN 60079-14 or IEC/EN 60079-25.

Only connect a device that is in accordance with IEC/EN 60950-1 and is designed as safety extra-low protective voltage (SELV) system.

Ensure that all fasteners are present.

Observe the tightening torque of the screws.

For intrinsically safe circuits, the dielectric strength of the insulation against other intrinsically safe circuits and against the shield must be at least 500 V according to IEC/EN 60079-14.

Safety-relevant markings are found on the nameplate supplied. Ensure that the nameplate is present and legible. Take the ambient conditions into account.

Ensure that external earth connections exist, are in good condition, and are not damaged or corroded.

Ensure that the terminals are in good condition and are not damaged or corroded.

Mount the device in a weatherproof location.

Mount the device in such a way that it is protected from direct sunlight.

Mount the device in such a way that it is protected from ultraviolet radiation.

Mount the device in such a way that it is protected from direct sunlight, unless it is equipped with UV protection.

Ensure that the operating location has a sufficient floor load capacity.

If mounting the enclosure on concrete use expansion anchors. When mounting the enclosure to a steel framework use vibration resistant mounting material.

Protect the device against long-term or excessive mechanical vibrations.

The device is heavy. In order to avoid personal injuries or property damage, take appropriate measures for the mounting procedure.

Observe the maximum permissible length of cables and connection lines.

Observe the installation instructions according to IEC/EN 60079-14.

Observe the installation instructions according to IEC/EN 60079-25.

Equipotential bonding must be achieved along the intrinsically safe circuits.

Connect all bare non-energized metal parts to the protective conductor.
The device is not suitable for separating hazardous areas.
The housing has an earth connection. Connect to this earth connection an equipotential bonding conductor with a minimum cross section of 4 mm^2.
The device may be installed in gas group IIC.
Only remove the cover in the absence of a potentially explosive atmosphere.
The device must be disconnected from the power supply prior to installation and maintenance. The power supply may be activated only after all the circuits required for operation have been fully assembled and connected.
If circuits with type of protection Ex i are operated with non-intrinsically safe circuits, they must no longer be used as circuits with type of protection Ex i.
If the device has been used with an Ex ic circuit with voltage U_o greater than voltage U_i specified for type of protection Ex ia or Ex ib, the device must not be connected to Ex ia or Ex ib circuits anymore.
Observe the respective peak values of the field device and the associated apparatus with regard to explosion protection when connecting intrinsically safe field devices with intrinsically safe circuits of associated apparatus (verification of intrinsic safety). Also observe IEC/EN 60079-14 and IEC/EN 60079-25.
Observe the maximum values of the device, when connecting the device to intrinsically safe apparatus.
Keep the separation distances between all non-intrinsically safe circuits and intrinsically safe circuits according to IEC/EN 60079-14.
Observe the compliance of the separation distances between two adjacent intrinsically safe circuits according to IEC/EN 60079-14.
Circuits of intrinsically safe apparatus can be led into hazardous areas, whereby special attention must be paid to maintaining separation distances to all non-intrinsically safe circuits according to the requirements in IEC/EN 60079-14.
Observe the grounding requirements for type of protection Ex i according to IEC/EN 60079-14.

Requirements in Relation to Electrostatics

Avoid electrostatic charges which could result in electrostatic discharges while installing, operating, or maintaining the device.
You can reduce the electrostatic hazards by minimizing the generation of static electricity. For example, you have the following options to minimize the generation of static electricity:

- Control the environmental humidity.
- Protect the device from direct airflow.
- Ensure a continuous drain off of the electrostatic charges.

Information on electrostatic hazards can be found in the technical specification IEC/TS 60079-32-1.
Avoid inadmissibly high electrostatic charge on the device.
An electrostatic charge poses an ignition hazard in case of discharge.
Include the metal housing components in the equipotential bonding.
Avoid inadmissibly high electrostatic charge of the cables and connection lines.

Requirements for Cable Glands

Use only one connection line per opening.
Use only one conductor per terminal.
Adjust the sealing element of the cable gland to the diameter of the cables and connection lines used.
Install the cables and the cable glands in accordance with IEC/EN 61241-0.
Ensure that all cable glands are in good condition and are securely tightened.
Only use cable glands with a temperature range appropriate to the application.

Requirements for Cables and Connection Lines

Observe the following points when installing cables and connection lines:
Install the cables and connection lines in such a way that they are protected from ultraviolet radiation.
Install cables and cable glands in a way that they are not exposed to mechanical hazards.
The dielectric strength of the insulation must be at least 500 V according to IEC/EN 60079-14.
Observe the permissible core cross section of the conductor.
Observe the insulation stripping length.
When installing the conductors the insulation must reach up to the terminal.
When using stranded conductors, crimp wire end ferrules on the conductor ends.
Observe the minimum bending radius of the conductors.
The nominal core cross section of a connected conductor is 2.5 mm^2 (solid, finely stranded, and stranded).
Unused cables and connection lines must be either connected to terminals or securely tied down and isolated.

Requirements for Equipment Protection Levels Gc, Dc

The device must be installed and operated only in a controlled environment that ensures a pollution degree 2 (or better) according to IEC/EN 60664-1.

8. Housings and Surrounding Enclosures

If additional surrounding enclosures are required, the following points must be considered during installation:

- Degree of protection according to IEC/EN 60529
- Resistance to light according to IEC/EN 60079-0
- Resistance to impact according to IEC/EN 60079-0
- Resistance to chemical agents according to IEC/EN 60079-0
- Thermal endurance according to IEC/EN 60079-0
- Electrostatics according to IEC/EN 60079-0

Mount the device so that it complies with the specified degree of protection according to IEC/EN 60529.
Mount the surrounding enclosure in a way that all housing outlets, e. g., cable glands and breather drains face downwards.
Ensure that the enclosure is not damaged, distorted, or corroded.
Ensure that all seals are clean, undamaged, and correctly fitted.
When the cover is fitted, ensure that all fasteners are fully tightened.
Tighten all screws of the housing/housing cover with the appropriate torque.
For cable glands only use incoming cable diameters of the appropriate size.
Close all unused cable glands with the appropriate sealing plugs.
Close all unused enclosure holes with the appropriate stopping plugs.

9. Operation, Maintenance, Repair

Prior to using the product make yourself familiar with it. Read the instruction manual carefully.
Do not stay below the open device. In order to avoid personal injuries or property damage, take appropriate measures for the mounting and maintenance procedures.
Do not repair, modify, or manipulate the device.
Do not use a damaged or polluted device.
When detecting a damage, remove the device from the hazardous area.
If the device is installed in potentially explosive dust atmosphere, observe that the thickness of the dust layer does not exceed 5 mm. Remove the dust layers in regular intervals.
If there is a defect, always replace the device with an original device.
If there is a defect, the device must be repaired by Pepperl+Fuchs.
Observe the warning markings.
Do not remove the warning markings.
Disconnect the device, before you plug or unplug the terminals.
After de-energizing the device, a specified delay before opening the cover has to be maintained.
If cleaning is necessary while the device is located in a hazardous area, in order to avoid electrostatic charging only use a clean damp cloth.
Observe IEC/EN 60079-17 for maintenance and inspection.
Retrieve the temperature class dependant temperature ranges from the EU-type examination certificate.
Only operate the device with a closed Ex e terminal compartment.
Remove the dust before opening the terminal compartment.

10. Delivery, Transport, Disposal

Check the packaging and contents for damage.
Check if you have received every item and if the items received are the ones you ordered.
Always store and transport the device in the original packaging.
Store the device in a clean and dry environment. The permitted ambient conditions must be considered, see datasheet.
The device, built-in components, packaging, and any batteries contained within must be disposed in compliance with the applicable laws and guidelines of the respective country.