

Instruction Manual

1. Marking

Gateway FB8220B.1.EL, FB8221B.1.EL, FB8222B.1.EL, FB8230B.1.EL
ATEX certificate: PTB 19 ATEX 2007 U ATEX marking: Ⓜ II 2G Ex db eb ib q IIC Gb
IECEx certificate: IECEx PTB 19.0025 U IECEx marking: Ex db eb ib q IIC Gb
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2. Validity

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

3. Target Group, Personnel

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismantling lies with the plant operator. The personnel must be appropriately trained and qualified in order to carry out mounting, installation, commissioning, operation, maintenance, and dismantling of the device. The trained and qualified personnel must have read and understood the instruction manual.

Prior to using the product make yourself familiar with it. Read the instruction manual carefully.

4. Reference to Further Documentation

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

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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.

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.

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.

5. Intended Use

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 temperature range.

Use the device only within the specified ambient and operating conditions. Only use the device stationary.

The I/O modules, com units, power supplies, and bus termination modules of the remote I/O system must only be used together with the associated backplanes.

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

The backplane connections are non-intrinsically safe.

6. Improper Use

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

The device is not suitable for isolating signals in power installations unless this is noted separately in the corresponding datasheet.

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.

Observe the instruction manuals for the associated backplanes.

The device must only be operated in the specified ambient temperature range and at the specified relative humidity without condensation.

The device must be installed and operated only in an environment of overvoltage category II (or better) according to IEC/EN 60664-1.

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.

Do not mount the device at locations where an aggressive atmosphere may be present.

Do not mount a damaged or polluted device.

Avoid electrostatic charges which could result in electrostatic discharges while installing, operating, or maintaining the device.

If the device has already been operated in general electrical installations, the device may subsequently no longer be installed in electrical installations used in combination with hazardous areas.

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

Only use accessories specified by the manufacturer.

Connection or disconnection of energized non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.

Push the module into the slot until all rear catches have audibly engaged in position. The module must engage twice.

Do not push the modules into the slots with too much force. The rear connections of the devices may be damaged if using excessive force. In this case the explosion protection can no longer be ensured.

The device may only be installed and operated in Zone 1 if mounted in a surrounding enclosure, which corresponds to equipment protection level Gb.

Requirements for Surrounding Enclosures

Place warning marking "Warning – Refer to instruction manuals!" visibly on the surrounding enclosure.

Place warning marking "Warning – Avoid electrostatic charge!" visibly on the surrounding enclosure.

Requirements for Cables and Connection Lines

Connect the shield of each Ethernet cable connected to the Ethernet gateway to the equipotential bonding of the hazardous area.

Avoid potential differences between the shield and the backplane.

Only use original cable from Pepperl+Fuchs: type V1SD-W-*M-PUR-ABG*.

Never connect together protective earth and equipotential bonding of the hazardous area.

Never pull the cable. A wire could become loose from the terminal and protection against electric shock can no longer be ensured. Always pull the terminal.

8. Operation, Maintenance, Repair

Prior to using the product make yourself familiar with it. Read the instruction manual carefully.

Do not use a damaged or polluted device.

Only use accessories specified by the manufacturer.

Do not repair, modify, or manipulate the device.

If there is a defect, always replace the device with an original device.

Only remove the device with the integrated removal system. The integrated removal system requires a two-step removal process.

1 . Unlock and wait (refer to table for wait time)

2 . Remove

Wait time	Device
6 s	I/O modules FB*20*, FB*21*
6 s	Gateways FB8205 to FB8209, FB8210 and FB8211
6 s	Bus termination modules FB929*
7 min	Power supply FB9206*

Observe IEC/EN 60079-17 for maintenance and inspection.

The surrounding enclosure may be opened for maintenance while energized in Zone 1 provided that the following conditions are met:

- The connections of the non-intrinsically safe circuits must be protected by a cover with a degree of protection IP30.
- All other devices in the surrounding enclosure must permit the opening of the surrounding enclosure while energized in Zone 1.
- An appropriate marking is placed on the surrounding enclosure.

Except for FB modules with front side Ex e connections, all FB I/O modules, FB power supplies, FB bus termination modules, and FB com units may be swapped in Zone 1 while energized (hot swap).

9. 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.

Keep the original packaging. 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.