Instruction Manual

1. Marking

Display unit DPU1100-J1-*
ATEX certificate: BVS 16 ATEX E 084 X ATEX marking: Ⓔx II 2G Ex eb q ib IIC T4 Gb Ⓔx II 2D Ex tb IIIC T80 °C Db
IECEx certificate: IECEx BVS 16.0061X IECEx marking: Ex eb q ib IIC T4 Gb Ex tb IIIC T80 °C Db
CCC certificate: 2021322309003367 CCC marking DPU1100-J1- b-c-d-e-f: Ex eb q [ib] IIC T4 IP66 Gb Ex tb IIIC T80°C Db

Display unit DPU1200-J2-*
ATEX certificate: BVS 16 ATEX E 081 X ATEX marking: Ⓔx II 3G Ex ec IIC T4 Gc Ⓔx II 3D Ex tc IIIC T80 °C Dc
IECEx certificate: IECEx BVS 16.0061X IECEx marking: Ex ec IIC T4 Gc Ex tc IIIC T80 °C Dc
CCC certificate: 2021322309003367 CCC marking DPU1200-J2- b-c-d-e-f: Ex ec IIC T4 Gc Ex tc IIIC T80 °C Dc

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

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 Display Units DPU1*00-* are used as explosion-protected apparatus 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 Display Unit DPU1100-J1-*****-**-**-X may only be used in connection with the Thin Client Unit/Personal Computer Unit *CU1100-J1-... according to the ATEX certificate BVS 16 ATEX E 083 X.

The Display Unit DPU1200-J2-*****-**-**-X may only be used in connection with the Thin Client Unit/Personal Computer Unit *CU1200-J2-... according to the ATEX certificate BVS 16 ATEX E 082 X.

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.

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

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

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.

6. 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.

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

Ensure that all fasteners are present.

Observe the tightening torque of the screws.

The metal housing parts are coated. If you require a conductive connection, bypass this coating in an appropriate way.

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.

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.

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

The housing has an earth connection. Connect to this earth connection an equipotential bonding conductor with a minimum cross section of 4 mm^2.

When mounting the surrounding enclosure in hazardous areas, the surrounding enclosure must meet the requirements of a type of protection listed in IEC/EN 60079-0.

The device may be installed in gas group IIC.

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.

Do not damage the breather drain.

Do not cover the breather drain.

Specific Conditions of Use

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

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

When detecting a damage, remove the device from the hazardous area.

Mount the device in a location with low electrostatic charge.

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.

7. 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 surrounding enclosure in a way that all housing outlets, e. g., cable glands and breather drains face downwards.

Mount the device so that it complies with the specified degree of protection according to IEC/EN 60529.

To ensure the degree of protection:

- The housing must not be damaged, distorted or corroded.
- All seals must be undamaged and correctly fitted.
- All screws of the housing/housing cover must be tightened with the appropriate torque.
- All cable glands must be suitably sized for the incoming cable diameters.
- All cable glands must be tightened with the appropriate torque.
- All unused cable glands must be sealed and closed with appropriate sealing plugs or stopping plugs.

8. 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.

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.

The housing is factory-sealed. Do not open the housing.

Do not remove the warning marking "Warning – Do not open when energized!".

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.

Remove the dust before opening the surrounding enclosure.

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.

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.