Instruction Manual

1. Marking

ATEX/IECEx Marking

Display Unit DPU2100-J1-* Pepperl+Fuchs GmbH Lilienthalstraße 200, 68307 Mannheim, Germany
ATEX: CML 17ATEX5191X Ex II 2G Ex eb ib q IIC T4 IP66 Gb Ex II 2D Ex tb IIIC T85 °C Db
IECEx: IECEx CML 17.0106X Ex eb ib q IIC T4 IP66 Gb Ex tb IIIC T85 °C Db

2. Validity

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.

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

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.

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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3. 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.

4. Intended Use

DPU2100-* display units are used as explosion-protected apparatus for controlling, operating and visualizing production and manufacturing processes in hazardous areas Zone 1, ignition group IIC, and Zone 21 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.

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 special conditions apply have the X marking at the end of the certificate number.

5. Improper Use

Protection of the 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.

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 protective 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 ground 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.

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, make appropriate provisions for the mounting procedure.

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

Include the metal housing components in the equipotential bonding.

An electrostatic charge poses an ignition hazard in case of discharge.

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

The housing has a ground connection. Connect to this ground 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.

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 repair, modify, or manipulate the device.

Do not use a damaged or polluted device.

If the device is installed in potentially explosive dust atmosphere, remove dust layers which exceed 5 mm 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.

Disposing of device, packaging, and possibly contained batteries must be in compliance with the applicable laws and guidelines of the respective country.