

# Instruction Manual

## 1. Marking

6100 series purge and pressurization system for Zone 1 Control unit: 6100-MP-EX-** Enclosure protection vent: EPV-6100-MP-*** Pressure sensor: 6100-MP-LPP-**
Pepperl+Fuchs GmbH Lilienthalstraße 200, 68307 Mannheim, Germany
ATEX and IECEx: See the nameplate on the device side or lid for the exact designation.

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

Modifications are permitted only if approved in this instruction manual and in the device-related documentation.

Observe the special conditions.

## 2. Validity

The chapter "Safety" is valid as instruction manual.

## 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.

The corresponding datasheets, manuals, declarations of conformity, EU-type examination certificates, certificates, and control drawings if applicable supplement this document. You can find this information under [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

For more information see the manufacturer declaration.

## 5. Intended Use

Observe the instruction manual and the certificate of the installed apparatus.

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

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 not a safety component according to the Machinery Directive. Do not use the device to prevent personal injury.

## 6. Improper Use

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

## 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 ambient and operating conditions when mounting and installing the device.

If you intend to install the device or enclosure in areas that may be exposed to aggressive substances, ensure that the stated surface materials are compatible with these substances. If required, contact Pepperl+Fuchs for further information.

Mount the device in a way that the device is protected against mechanical hazard.

If you use the device in environments subject to adverse conditions, you must protect the device accordingly.

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

Protect pneumatic components against mechanical hazard.

Ensure that the overpressure in the cabinet does not exceed the permissible peak value.

## Requirements for Cable Glands

Ensure that unused terminal screws are properly tightened down.

Observe the tightening torque of the terminal screws.

Observe the tightening torque of the cable glands.

Only use cable glands that are suitably certified for the application.

Only use stopping plugs that are suitably certified for the application.

Only use cable glands with a temperature range appropriate to the application.

Ensure that the degree of protection is not violated by the cable glands and the stopping plugs.

## Requirements for Cables and Connection Lines

Only use cables and connection lines with a temperature range appropriate to the application.

Install cables and cable glands in a way that they are not exposed to mechanical hazards.

Observe the permissible core cross section of the conductor.

The insulation stripping length must be considered.

Protect plastic cable glands against mechanical hazard.

In order to guarantee the temperature classes, ensure that power dissipation is lower than the figure stated in the certificate. Most of the power dissipation arises from current flowing in the cables.

Use seals that are suitable for the specified application.

## 8. Device-Related Information

Observe the tightening torque of the screws.

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.

Install the device in locations with a low risk of mechanical hazard according to IEC/EN 60079-0 only.

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 of the device or the nameplate supplied.

## 9. Non-Hazardous Area

The device may be installed in the non-hazardous area.

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

## 10. Systems and Solutions

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

When installing additional components, make sure that these components are listed in the relevant certificates.

Select suitable conductors in order to ensure that the maximum permitted temperature of the conductors fit to the maximum permitted ambient temperature of the terminal box.

For control panels with IECEx certification, only use cable glands with metric thread or NPT thread.

## 11. Hazardous Area

The enclosure has a ground connection. Connect an equipotential bonding conductor with a minimum cross section of 4 mm<sup>2</sup> to this ground connection.

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

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

Avoid impact effect or friction during mounting.

## 12. Gas

Only remove the cover in the absence of a potentially explosive atmosphere.

The device may be installed in gas groups IIC, IIB, and IIA.

## 13. Zone 1

The device may be installed in Zone 1.

The intrinsically safe output circuits may lead into Zone 1.

## 14. Type of Protection Ex e

If intrinsically safe and non-intrinsically safe circuits are being operated together, the connections of the non-intrinsically safe circuits must be covered. The cover must comply with degree of protection IP30 according to IEC/EN 60529.

Do not connect or disconnect increased safety circuits when the circuits are energized and a potentially explosive atmosphere is present.

## 15. Type of Protection Ex i

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.

Keep the separation distances between all non-intrinsically safe circuits and intrinsically safe circuits according to IEC/EN 60079-14.

Intrinsically safe circuits of associated apparatus can be led into hazardous areas. Observe the compliance of the separation distances to all non-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.

## 16. Housings and Surrounding Enclosures

Substitution of components may impair suitability for Zone 2.

Do not install fuse terminals, relays, miniature circuit breakers, contactors etc. in the enclosure.

## 17. Operation, Maintenance, Repair

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

Do not remove the nameplate.

Observe the warning markings.

Do not connect or disconnect the electrical connection when energized.

Do not exceed the maximum permitted output current. Prevent short circuits.

Do not exceed the maximum power dissipation. Refer to nameplate for maximum power dissipation.

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

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

Only operate the device with a closed Ex e terminal compartment.

Do not damage the flamepath surfaces between enclosure and enclosure cover during the opening of the control panel.

If the enclosure is damaged, replace enclosure and enclosure cover.

Substitution of components may impair intrinsic safety.

Remove all adhering residues from the device. These residues can be hazardous to health.

Fill in the form "Declaration of Contamination". You can find this form on the product detail page at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

## 18. Return

### Return

If there is a defect, always send back the device to Pepperl+Fuchs.

## 19. 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.

Store the device in a clean and dry environment. The permitted ambient conditions must be considered, see datasheet.