Instruction Manual

1. Marking

Surge Protection Barrier M-LB-2112, M-LB-2112.SP, M-LB-2114, M-LB-2114.SP M-LB-2142, M-LB-2142.SP, M-LB-2144, M-LB-2144.SP
ATEX certificate: KIWA 19 ATEX 0002 X
ATEX marking: ⟨Ex⟩ II 3G Ex ec IIC T6...T4 Gc
IECEx certificate: IECEx KIWA 19.0002X
IECEx marking: Ex ec IIC T6...T4 Gc
North America Certifcates: E501881 (UL)
Class I, Division 2, Groups A-D, T4 Class I, Zone 2, IIC, T4
CCC certificate: 2020322304002905
CCC marking: Ex ec IIC T6...T4 Gc

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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.

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

3. Reference to Further Documentation

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 supplement 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.

If you use the device in safety-related applications, observe the requirements for functional safety. You can find these requirements in the functional safety documentation under www.pepperl-fuchs.com.

4. 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 and operating conditions.

The device is an electrical apparatus for hazardous areas of Zone 2.

The device is designed to protect equipment from damage caused by indirect effects of lightning or other transient overvoltages.

This protection is achieved by diverting the increased transient current and limiting the voltage during the duration of the overvoltage surge.

If you use the device in safety-related applications, observe the information for safety function and safe state.

The device is designed for mounting on a 35 mm DIN mounting rail according to EN 60715.

Additional Requirements for UL

Use the device in a signal loop that is isolated from the public switched telephone network.

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

Do not mount a damaged or polluted device.

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.

If used in areas with higher pollution degree, the device needs to be protected accordingly.

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

Observe the derating of the current depending on the ambient temperature.

Do not mount the device in the dust hazardous area.

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

If you install the device in safety-related applications, observe the requirements for functional safety.

Requirements for Cables and Connection Lines

Observe the permissible core cross section of the conductor.

When using stranded conductors, crimp wire end ferrules on the conductor ends.

Use only one conductor per terminal.

When installing the conductors the insulation must reach up to the terminal.

Observe the tightening torque of the terminal screws.

Requirements for Equipment Protection Level Gc

The device may be installed in Zone 2.

The device must be installed and operated only in surrounding enclosures that

- comply with the requirements for surrounding enclosures according to IEC/EN 60079-0,
- are rated with the degree of protection IP54 according to IEC/EN 60529.

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

Observe the derating of the current depending on the ambient temperature and the temperature class.

Place warning marking "Warning – Connection or disconnection of energized circuits is only permitted in the absence of a potentially explosive atmosphere!" visibly next to device.

Additional Requirements for UL

Install the device in accordance with the applicable requirements of the NEC/CEC and the local authorities having jurisdiction.

Install the device in an approved surrounding enclosure suitable for intended application. Ensure that the surrounding enclosure has a flammability rating of at least V-0.

Warning

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

7. Operation, Maintenance, Repair

If you operate the device in safety-related applications, observe the requirements for functional safety. In case of operating in low demand mode, plan appropriate intervals for the proof test.

Do not repair, modify, or manipulate the device.

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

Requirements for Equipment Protection Level Gc

Only use operating elements in the absence of a potentially explosive atmosphere.

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

8. 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.