Instruction Manual

1. Marking

Fieldbus Surge Protector DP-LBF-I1.36.DE (surge protection, electronic module) DP-LBF-I1.36.IE (surge protection, electronic module) DB-LBF-I1 (surge protection, base module) DB-LBF-I1.I (surge protection, base module)
ATEX certificate: KEMA 09 ATEX 0190 X ATEX marking: ⟨Ex⟩ II 3G Ex ic IIC T6...T4 Gc , ⟨Ex⟩ II 3G Ex ec IIC T6...T4 Gc ATEX certificate: KEMA 09 ATEX 0191 X ATEX marking: ⟨Ex⟩ II 2(1)G Ex ia [ia Ga] IIC T6...T4 Gb
IECEx certificate: IECEx KEM 09.0088X IECEx marking: Ex ia [ia Ga] IIC T6...T4 Gb, Ex ic IIC T6...T4 Gc, Ex ec IIC T6...T4 Gc
CCC certificate: 2022312304001295 CCC marking: Ex ia [ia Ga] IIC T4...T6 Gb, Ex ic IIC T4...T6 Gc, Ex ec IIC T4...T6 Gc

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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 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.

4. Reference to Further Documentation

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.

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.

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

The device is designed for use in intrinsically safe fieldbus systems according to FISCO, Entity, or DART.

6. Improper Use

Protection of 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.

Do not mount a damaged or polluted device.

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

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

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

If the device has been operated in general electrical installations, the device must no longer be connected to an intrinsically safe circuit.

The dielectric strength of at least 500 V AC for the intrinsically safe circuit is limited by the surge protection.

The cables connected to the device must be shielded, or covered by a metal coating, or passed within a metal pipe.

The following connections are considered to be connected to ground.

Connections:	5, 6, 7, 8

When the device is used in a fieldbus system according to FISCO, the following conditions must be met:

- The power supply must have infallible galvanic isolation.
- The power supply may not be connected to ground.

Alternatively, the power supply must be infallibly connected to the equipotential bonding system in the hazardous area.

Mount the device in a metal housing or in a housing that is certified for this use.

Mount the device on a DIN mounting rail with an earth connection. Connect to this earth connection an equipotential bonding conductor with a minimum cross section of 4 mm^2.

7.1. Hazardous Area

7.1.1. Gas

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

7.1.1.1. Zone 0

The level of protection of the circuit is not changed by the device.

If a cable is led into Zone 0, the cable length between the device and the boundary of Zone 0 must be limited to 1 m according to IEC/EN 60079-14.

If the cable is led into Zone 0, the cable must be protected against interferences deriving from lightning.

The shield of the cable may only be led into Zone 0 if it is safely grounded like an equipotential bonding conductor according to IEC/EN 60079-14.

7.1.1.2. Zone 1

The device may be installed in Zone 1.

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

7.1.1.3. Zone 2

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.

7.1.2. Dust

7.1.2.1. Zone 21

The device may only be installed and operated in Zone 21 if mounted in a surrounding enclosure, which corresponds to equipment protection level Db.

7.1.2.2. Zone 22

The device may only be installed and operated in Zone 22 if mounted in a surrounding enclosure, which corresponds to equipment protection level Dc.

7.1.3. Type of Protection

7.1.3.1. Type of Protection Ex i

Observe the compliance of the separation distances between two adjacent intrinsically safe circuits according to IEC/EN 60079-14.

7.1.3.2. Type of Protection Ex ec

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.

8. Operation, Maintenance, Repair

Do not repair, modify, or manipulate the device.

Do not use a damaged or polluted device.

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.

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

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.