

Instruction Manual

1. Marking

Conductive Limit Switch LKL-P1, LKL-P2
ATEX certificate: TÜV 03 ATEX 2295 X ATEX marking: Ⓜ II 2G Ex ia IIC T5 Gb Ⓜ II 2G Ex ia [ia] IIC T6 Gb
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2. Device Versions

Device type	Basic specifications	Optional specifications
LKL-P	X-XXXX-XXXX-XX	+XX

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

The following specifications reproduce an extract from the product structure and are used to assign.

Basic specifications

Option	Electrical output
N1	FEW58, NAMUR
NA	Separate instrumentation (without electronic insert)

Option	Approval
EB	ATEX II 2G Ex ia IIC T5 Gb ¹ ATEX II 2G Ex ia [ia] IIC T6 Gb ²

¹ Only in connection with feature **Electrical output**, option **NA**

² Only in connection with feature **Electrical output**, option **N1**

Optional specifications

No options specific to hazardous locations are available.

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 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, control drawings, and temperature tables if applicable 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.

Refer to the relevant EU-type examination certificate to see the relationship between the connected circuit type, the maximum permitted ambient temperature, the temperature class, and the effective inner reactances.

5. 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.

The device is a conductive limit switch and is used for limit value detection in conductive liquids.

Use the device only within the specified ambient and operating conditions.

Only use the device in media to which the process-contacting materials of the device are sufficiently resistant.

The EU-type examination certificate in accordance with ATEX Directive applies only to the use of apparatus under atmospheric conditions.

The device is an intrinsically safe apparatus according to IEC/EN 60079-11.

The device can be used in hazardous areas containing gas, vapor, and mist.

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

Use appropriate protection measures in order to protect persons that have contact with hazardous or toxic substances.

Do not mount a damaged or polluted device.

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

If you expect dynamic loads, support the extension tube of the device.

Only use accessories specified by the manufacturer.

Avoid impact effect or friction during mounting.

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

Ensure that the device provides and maintains a degree of protection of at least IP66 according to IEC/EN 60079-0.

Requirements for Hazardous Area

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

Refer to the temperature tables for the relationship between permitted ambient temperature, range of application and temperature class.

The device may be installed in Zone 1.

If circuits with type of protection Ex i are operated with non-intrinsically safe circuits, they must no longer be used as circuits with type of protection Ex i.

8. Operation, Maintenance, Repair

Do not use a damaged or polluted device.

The device is maintenance-free.

Do not repair, modify, or manipulate the device.

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

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

Avoid impact effect or friction during operating.

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

Return

Take the following precautions before you return the device to Pepperl+Fuchs.

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.

Enclose the filled in **Declaration of Contamination** form with the device.

Pepperl+Fuchs can examine and repair a returned device, only if a completed form is included in the return.

If needed, include special handling instructions with the device.

Specify the following information:

- Chemical and physical characteristics of the product
- Description of the application
- Description of the error that occurred (specify error code if possible)
- Operating time of the 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.

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.