

Instruction Manual

1. Marking

Pressure Transmitter LHCR-51 4 to 20 mA HART, PROFIBUS PA
ATEX certificate: PF 13 CERT 2748 X ATEX marking: Ⓢ II 3G Ex nA IIC T6...T4 Gc
Pepperl+Fuchs Group Lilienthalstraße 200, 68307 Mannheim, Germany Internet: www.pepperl-fuchs.com

2. Device Versions

Device type	Basic specifications	Optional specifications	Probe length
LHCR-51	XXXXXXXX-XXXX-XX	X	.XXXXX

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.

Device type

Device type	Description
LHCR-51	Device with rod probe

Basic specifications

Option	Output
H	4 mA to 20 mA Smart electronics, HART protocol
P	PROFIBUS PA electronics P3.0

Option	Approval
E2	ATEX II 3G Ex nA IIC T6...T4 Gc

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/device-information.

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.

Observe the instruction manuals for the associated components.

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.

Only use the device in the industrial location.

The device is used for level and pressure measurement in liquids or paste-like media.

The device has a hermetically sealed hydrostatic measuring cell.

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

7. Specific Conditions of Use

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

Avoid impact effect or friction during mounting.

Avoid impact effect or friction during operating.

Avoid inadmissibly high electrostatic charge plastic surfaces.

Avoid inadmissibly high electrostatic charge of insulated capacities or insulated metal parts.

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.

To avoid electrostatic charges, do not rub the surfaces with a dry cloth.

The device must only be operated at the specified relative humidity without condensation.

Provide a transient protection. Ensure that the peak value of the transient protection does not exceed 140 % of the rated voltage.

8. 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.

Avoid impact effect or friction during mounting.

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.

Secure the device against swinging.

Mount the enclosure at the fixing points provided.

Ensure that all fasteners are fully tightened.

Only use accessories specified by the manufacturer.

Include the device into the equipotential bonding.

Protect the circuit against overvoltage (e. g., lightning).

The intrinsically safe circuit is grounded.

Equipotential bonding must be achieved along the intrinsically safe circuits.

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 2.

The measuring equipment of the device may be installed in Zone 2.

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.

9. Operation, Maintenance, Repair

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

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.

Mount the enclosure at the fixing points provided.

Ensure that all fasteners are fully tightened.

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 inadmissibly high electrostatic charge plastic surfaces.

Avoid inadmissibly high electrostatic charge of insulated capacities or insulated metal parts.

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.

To avoid electrostatic charges, do not rub the surfaces with a dry cloth.

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

10. 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.