

# Instruction manual

## Marking

Capacitive sensor
CCN5-F46A-N1
Pepperl+Fuchs GmbH
Lilienthalstraße 200, 68307 Mannheim, Germany

Range of application	Certification	Group, category, type of protection
ATEX 1G	TÜV 03 ATEX 2003 X	Ⓜ II 1G Ex ia IIC T6...T1 Ga
ATEX 2G	TÜV 03 ATEX 2003 X	Ⓜ II 1G Ex ia IIC T6...T1 Ga
ATEX 1D	ZELM 03 ATEX 0128 X	Ⓜ II 1D Ex iaD 20 T 85 °C (185 °F)

## Validity

Specific processes and instructions in this document require special precautions to guarantee the safety of the operating personnel.

## Target group, personnel

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismantling lies with the plant operator.

Mounting, installation, commissioning, operation, maintenance and disassembly of any devices may only be carried out by trained, qualified personnel. The instruction manual must be read and understood.

## Reference to further documentation

Observe laws, standards, and directives applicable to the intended use and the operating location. Observe Directive 1999/92/EC in relation to hazardous areas.

The corresponding datasheets, declarations of conformity, EC-type-examination certificates, certificates and control drawings if applicable (see datasheet) are an integral part of this document. You can find this information under [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

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](http://www.pepperl-fuchs.com).

## 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.

### Range of application 1D

**Manual electrical apparatus for hazardous areas**  
for use in hazardous areas with combustible dust

### Range of application 1G

**Manual electrical apparatus for hazardous areas**

for use in hazardous areas with gas, vapour and mist

### Range of application 2G

**Manual electrical apparatus for hazardous areas**  
for use in hazardous areas with gas, vapour and mist

## Improper use

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

## 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.

Mount the device so that it is not exposed to any mechanical hazard. For example, mount the device in a protective housing.

### Range of application 1D

The connection cables are to be laid in accordance with EN 50281-1-2 and must not normally be subjected to chaffing during use.

### Range of application 1G

When used in the temperature range below -20 °C the sensor should be protected from knocks by the provision of an additional housing.

When used in group IIC non-permissible electrostatic charges should be avoided on the plastic housing parts. Information on electrostatic hazards can be found in the technical specification IEC/TS 60079-32-1. Additional requirements for gas group IIC. Avoid electrostatic charges that can cause electrostatic discharge when installing or operating the device.

### Range of application 2G

When used in the temperature range below -20 °C the sensor should be protected from knocks by the provision of an additional housing.

## Operation, maintenance, repair

The device must not be repaired, changed or manipulated.

In the event of a fault, always return the device to Pepperl+Fuchs.

If there is a defect, the device must always be replaced with an original device from Pepperl+Fuchs.

## 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 (see datasheet) must be considered.

Disposing of device, packaging material, and possibly contained batteries must be in compliance with the applicable laws and guidelines of the respective country.