Instruction manual

Marking

Inductive sensor
NBB15-30GM50-E2-V1-3G-3D
211275
Pepperl+Fuchs GmbH
Lilienthalstraße 200, 68307 Mannheim, Germany

Range of application	Certification	Group, category, type of protection
ATEX 3G (nA)		⟨Ex⟩ II 3G Ex nA IIC T6 Gc The Ex-related marking can also be printed on the enclosed label.
ATEX 3D (tc)		⟨Ex⟩ II 3D Ex tc IIIC T80°C Dc The Ex-related marking can also be printed on the enclosed label.
ATEX 3D (tD)		⟨Ex⟩ II 3D Ex tD A22 IP67 T80°C X

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 dismounting 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.
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.

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

Manual electrical apparatus for hazardous areas

Range of application 3D (tD)

for use in hazardous areas with non-conducting combustible dust

Range of application 3G (nA)

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 3D (tc)

Protection from mechanical danger

The sensor must not be exposed to **ANY FORM** of mechanical danger.

Protection from UV light

The sensor and the connection cable must be protected from damaging UV-radiation. This can be achieved when the sensor is used in internal areas.

Electrostatic charge

Electrostatic charges must be avoided on the mechanical housing components. Dangerous electrostatic charges on the mechanical housing components can be avoided by incorporating these in the equipotential bonding. Avoid electrostatic charges that can cause electrostatic discharge when installing or operating the device. Information on electrostatic hazards can be found in the technical specification IEC/TS 60079-32-1. Do not attach the nameplate provided in areas where electrostatic charge can build up.

Material selection accessories

When selecting accessories, ensure that the material allows the temperature of the enclosure to rise to up to 70 °C.

Plug connector

The plug connector must not be withdrawn under voltage. The proximity switch is identified as follows: "WARNING - DO NOT SEPARATE WHEN ENERGIZED". With the plug connector disconnected, soiling of the internal area must be prevented.(i.e. the area that is inaccessible when the connector is inserted)

Range of application 3D (tD)

Protection from mechanical danger

The sensor must not be exposed to **ANY FORM** of mechanical danger.

Protection from UV light

The sensor and the connection cable must be protected from damaging UV-radiation. This can be achieved when the sensor is used in internal areas.

Electrostatic charge

Electrostatic charges must be avoided on the mechanical housing components. Dangerous electrostatic charges on the mechanical housing components can be avoided by incorporating these in the equipotential bonding.
Sliding contact discharges must be avoided.

Plug connector

The plug connector must not be withdrawn under voltage. The proximity switch is identified as follows: "WARNING - DO NOT SEPARATE WHEN ENERGIZED". With the plug connector disconnected, soiling of the internal area must be prevented.(i.e. the area that is inaccessible when the connector is inserted)

The plug connection can only be separated using a tool. This is achieved by using the locking protection V1-Clip (Mounting accessory from Pepperl + Fuchs).

Range of application 3G (nA)

Protection from mechanical danger

The sensor must not be exposed to **ANY FORM** of mechanical danger.

Protection from UV light

The sensor and the connection cable must be protected from damaging UV-radiation. This can be achieved when the sensor is used in internal areas.

Protection against transients

Ensure transient protection is provided and that the maximum value of the transient protection (140% of 85 V) is not exceeded.

Electrostatic charge

Electrostatic charges must be avoided on the mechanical housing components. Dangerous electrostatic charges on the mechanical housing components can be avoided by incorporating these in the equipotential bonding.

Material selection accessories

When selecting accessories, ensure that the material allows the temperature of the enclosure to rise to up to 70 °C.

Plug connector

The plug connector must not be withdrawn under voltage. The proximity switch is identified as follows: "WARNING - DO NOT SEPARATE WHEN ENERGIZED". With the plug connector disconnected, soiling of the internal area must be prevented.(i.e. the area that is inaccessible when the connector is inserted)

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.