

Original Instructions

1. Marking

Cylindrical Inductive Sensor

NSB2-12G*-2E2*-S2D2, NSN4-12G*-2E2*-S2D2
NSB5-18G*-2E2*-S2D2, NSN8-18G*-2E2*-S2D2
NSB10-30G*-2E2*-S2D2, NSN15-30G*-2E2*-S2D2

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

You will find the exact device designation on the nameplate.

Pepperl+Fuchs Group

Lilienthalstraße 200, 68307 Mannheim, Germany

Internet: www.pepperl-fuchs.com

2. 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.

3. Reference to Further Documentation

Observe laws, standards, and directives applicable to the intended use and the operating location.

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.

If you use the device in safety-related applications, observe the requirements for functional safety. You can find these requirements in the functional safety documentation under www.pepperl-fuchs.com.

4. 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 an inductive sensor (proximity sensor). If an electrical conductive object, also known as a measuring plate, is inside the sensing range of the sensor coil, the magnetic field of the coil is influenced and an electrical switching signal is generated. The device can be operated in 3-wire or 4-wire circuits.

The device has 2 OSSD outputs with normally open function. The outputs switch to the off state according to their defined behavior under fault conditions (PDDb). If there is no object inside the sensing range, the outputs are high-impedance (off state). These outputs are compatible with the digital input types 1, 2 or 3 according to IEC/EN 61131-2.

The device transmits the digital signal to a safety PLC.

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

If you use the device in safety-related applications, observe the information for safety function and safe state.

5. Improper Use

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

6. Mounting and Installation

Do not mount a damaged or polluted device.

If you install the device in safety-related applications, observe the requirements for functional safety.

Observe the tightening torque of the device nuts.

Recommended tightening torque

Minimum tightening torque over the full thread length of the cylindrical sensor

Type	Brass	Stainless steel
NS*-12G...	10 Nm	15 Nm
NS*-18G...	30 Nm	30 Nm
NS*-30G...	30 Nm	30 Nm

Take measures to prevent electrical conductive material, with the exception of the designated measuring plate, is placed near the active area.

Observe the installation conditions for mounting the device.

Protect you from electric shock. Only connect the device to power supplies with parameters comply to the specifications in the datasheet.

Disconnect the device, before you plug or unplug the terminals.

Disconnect the device, before you plug or unplug the plugs.

Take measures to prevent that the supply voltage exceeds 40 V DC in the case of a fault. Use a suitable power supply.

7. Operation, Maintenance, Repair

If you operate the device in safety-related applications, observe the requirements for functional safety. In case of operating in low demand mode, plan appropriate intervals for the proof test.

Do not use a damaged or polluted device.

Do not repair, modify, or manipulate the device.

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

Disconnect the device, before you plug or unplug the terminals.

Disconnect the device, before you plug or unplug the plugs.

Take measures to prevent that the supply voltage exceeds 40 V DC in the case of a fault. Use a suitable power supply.

8. 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.