Operating instructions

for

Plastic Level Switch

for Liquids

Model: NKP

1. Contents

1. Contents....2
2. Note....3
   2.1. General....3
   2.2. Hazard warnings....3
3. Instrument Inspection....4
4. Regulation Use....4
5. Operating Principle....5
6. Mechanical Connection....5
7. Electrical Connection....7
8. Technical Information....8
9. Order Codes....8
10. Dimensions....8
11. Disposal....8
12. EU Declaration of Conformance....9
13. UK Declaration of Conformity....10

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2. Note

2.1. General

Before unpacking and commissioning the device, the operating instructions and the “General Safety Instructions” document must be read and followed carefully. The general safety instructions, the operating instructions, the data sheet as well as approvals and further information can be downloaded via the QR code on the device or under the respective product on www.kobold.com.

Due to technical changes, the device documentation available online may not always correspond to the product version you have purchased. If you need an instruction manual that corresponds to the purchased product version, you can request it from us free of charge by email (info.de@kobold.com) in PDF format, specifying the relevant invoice number and serial number. If you wish, the operating instructions can also be sent to you by post in paper form.

Operating instructions, data sheet, approvals and further information via the QR code on the device or via www.kobold.com

The devices are only to be used, maintained and serviced by persons familiar with these operating instructions and in accordance with local regulations applying to Health & Safety and prevention of accidents.

When used in machines, the device should be used only when the entire machine fulfils the EU machinery directive.

2.2. Hazard warnings

The following instructions are intended to ensure your personal safety and to prevent damage to the product described or connected devices. Safety instructions and warnings to prevent danger to the life and health of users or maintenance personnel, or to prevent damage to property, are highlighted in this documentation using the symbols defined here. *The symbols and terms used have the following meaning in the documentation itself:*

Symbol	Explanation	Symbol	Explanation
Note	Is important information about the product, the handling of the product or the respective part of the documentation to which particular attention should be drawn.	Caution	Means that minor personal injury or minor property damage may occur if proper precautions are not taken.

Symbol	Explanation	Symbol	Explanation
Warning	Indicates that serious personal injury or substantial property damage may occur if proper precautions are not taken.	Danger	Means that death can occur if proper precautions are not taken.
Warning	Attention: Hot surface!	Warning	Warning: Dangerous electrical voltage

By usage in machines, the measuring unit should be used only when the machines fulfil the EC-machine guidelines.

3. Instrument Inspection

Instruments are inspected before shipping and sent out in perfect condition. Should the damage to a device be visible, we recommend a thorough inspection of the delivery packing. In case of damage, please inform your parcel service/ forwarding agent immediately, since they are responsible for damages during transit.

Scope of supply:

- Plastic Level Switch model: NKP

4. Regulation Use

Model NKP devices are for use when monitoring liquid levels. The device should only be used with liquids that are compatible with the unit's materials of construction.
Level control is often accomplished with at least two level switches - one acting to sense the minimum level and the other for maximum level detection.

5. Operating Principle

The Plastic Level Switch NKP is designed for economical control of liquids in vessels. Many industrial applications can be realized with two different plastic versions each with three different mountings. The switch is remarkable for its maintenance-free design, small dimensions and reed contacts with high switch capacity. The switch is mounted on the side of the vessel. A hinged plastic float with a magnet floats up and down through the liquid level. The encapsulated reed contact is operated by the magnet. The switching function (N/O contact/N/C contact) is determined by the installation position. The switching function is reserved by simply rotating the switch through 180 °.

6. Mechanical Connection

The level switch should be mounted so that the float can move freely over its entire path without hitting the walls, floor or roof of the container. Avoid fitting the switch where agitators or inlet valves could expose it to excessive turbulence.
Make sure that the medium does not contain solids or ferrite particles, as they could collect on the float magnet and interfere with the switching operation. If the liquid does contain sediment or suspended matter, you must be sure they do not come into contact with the float system.

Note	4 Nm of torque should be applied to the mounting nut for the NKP-6

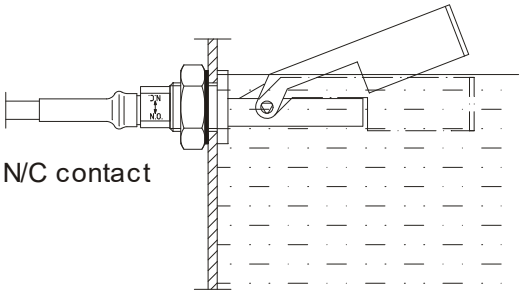
Mount the switch so that it is easily accessible for installation and maintenance.

- Make sure that the allowed max. process pressures and service temperature for the device are not exceeded.
- Mount the unit on a horizontal axis.
- Check that the joints are tight, immediately after installation.

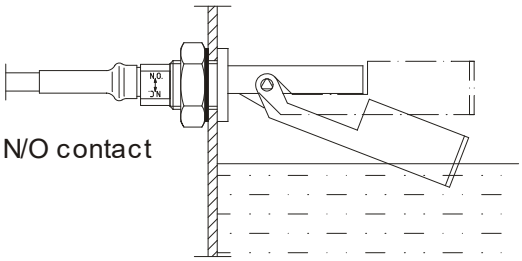
Mounting position

The mounting position of the level switch determines the contact operation.

NKP-6 (M16)

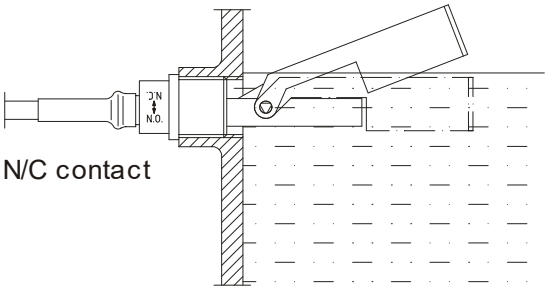


N/C contact

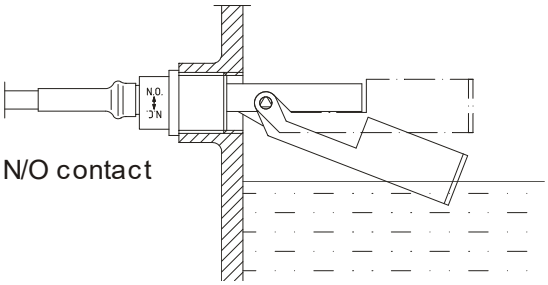


N/O contact

NKP-1 / NKP-2 (G1/2, ½ NPT)



N/C contact



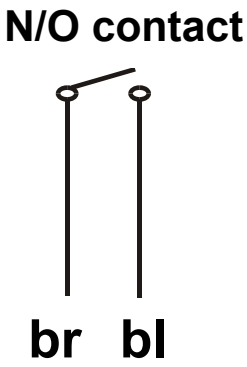
N/O contact

7. Electrical Connection

Caution	Attention! Be sure that the supply voltage of your system is the same as that specified on the device nameplate.

- Before proceeding, be sure that the electrical supply lines are de-energised.
- Attach the connection cable to your system, as indicated in the diagram below.
- The level switch is totally insulated; a protective grounding conductor is not required.

Conductor colour code



The device is ready for operation once you have connected your own process devices.

8. Technical Information

Operating instructions, data sheet, approvals and further information via the QR code on the device or via www.kobold.com

9. Order Codes

Operating instructions, data sheet, approvals and further information via the QR code on the device or via www.kobold.com

10. Dimensions

Operating instructions, data sheet, approvals and further information via the QR code on the device or via www.kobold.com

11. Disposal

See “General Safety Instructions” - via the QR code on the device or via www.kobold.com

12. EU Declaration of Conformance

We, KOBOLD Messring GmbH, Nordring 22-24, 65719 Hofheim, Germany, declare under our sole responsibility that the product:

Plastic Level Switch **model: NKP**

to which this declaration relates is in conformity with the following EU directives stated below:

2014/35EU	Low voltage guideline
2011/65/EU	**RoHS** (category 9)
2015/863/EU	Delegated Directive (RoHS III)

Also, the following standards are fulfilled:

EN 60529:2014
Protection type through housing (IP code)

EN IEC 63000:2018
Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

Hofheim, 23 May 2025

H. Volz
General Manager

J. Burke
Compliance Manager

13. UK Declaration of Conformity

We, KOBOLD Messring GmbH, Nordring 22-24, 65719 Hofheim, Germany, declare under our sole responsibility that the product:

Plastic Level Switch **model: NKP**

to which this declaration relates is in conformity with the following UK directives stated below:

S.I. 2016/1101	**Electrical Equipment (Safety) Regulations 2016**
S.I. 2012/3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Also, the following standards are fulfilled:

BS EN 60529:1992+A2:2013
Degrees of protection provided by enclosures (IP Code)

BS EN IEC 63000:2018
Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

Hofheim, 23 May 2025

H. Volz
General Manager

J. Burke
Compliance Manager