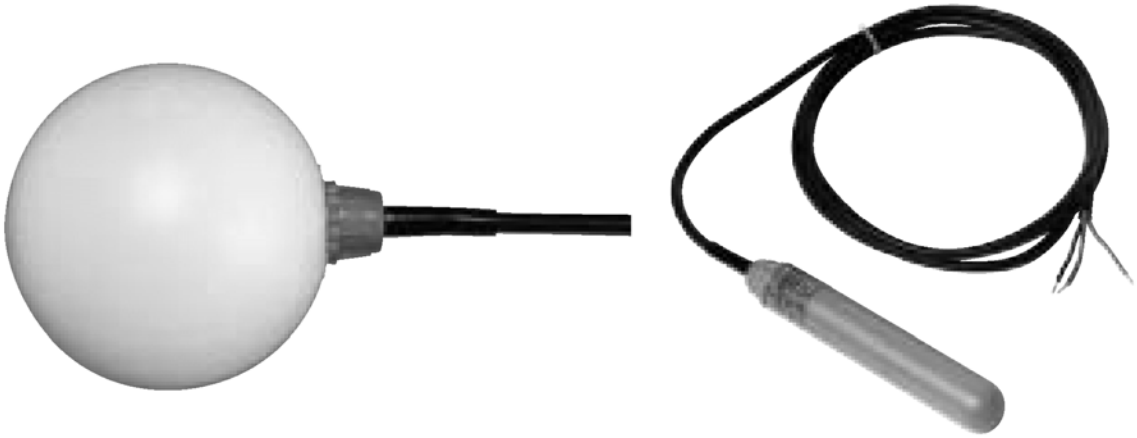
Operating Instructions

for

Float Switches for Liquids

Model: NSP



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2. Note

Please read these operating instructions before unpacking and putting the unit into operation. Follow the instructions precisely as described herein.
The instruction manuals on our website www.kobold.com are always for currently manufactured version of our products. Due to technical changes, the instruction manuals 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 against an applicable postage fee.

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 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 damage to a device be visible, we recommend a thorough inspection of the delivery packaging. In case of damage, please inform your parcel service / forwarding agent immediately, since they are responsible for damages during transit.

Scope of delivery:
The standard delivery includes:

- Float Switches for Liquids model: NSP

All the parts, which are standard scope of delivery, are included in the assembled unit. The accessory parts such as terminal connections and ballast weight are separately packed.

4. Regulation Use

Any use of the Float Switch for Liquids, model: NSP, which exceeds the manufacturers specification, may invalidate its warranty. Therefore, any resulting damage is not the responsibility of the manufacturer. The user assumes all risk for such usage.

The model NSP are used to monitor liquid-levels. Only those liquids may be measured, against which the materials used in the construction of the unit are resistant.

By making use of two float switches, one for the minimum level and one for the maximum level, liquid-level control for a system can be implemented.

5. Operating Principle

The float comprises a hollow cylinder or a ball with integrated mercury switch or microswitch.
The contact is supplied as a changeover contact; it can be connected as a N/O contact or N/C contact as an option. The contact switches when the liquid passes above or below the horizontal float position.
The switch point is set by the side installation of the switch at the desired position or by clamping the cable. The switch point is set using weights when installed at the top.

6. Mechanical Connection

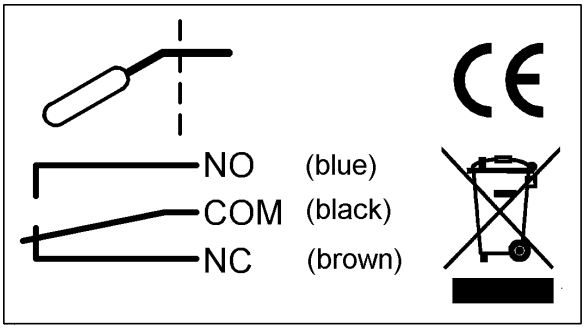
Before installation:

- Ensure that the permitted maximum pressure and temperature defined for the unit are not exceeded (see 9. Technical Information).
- **With open tanks** the float switch should be lowered into the tank from the top. The cable should be firmly held through a suitable cable-grip. Firm placement of the float switch is carried out through ballast-weight or cable-clamps on a guide-pipe where a cable length of 50 mm between the clamp and the float has to considered.
- **With closed, pressure-less tanks**, installation of float-switch is carried out by means of a threaded cable gland, with R1 screw-in thread (accessory), side-wise and through the wall.

In order that the float-switch may not be obstructed during its float-movement, at least 50 mm cable-length between retaining-grip and the float-switch must be allowed.

7. Electrical Connection

- Ensure that the supply lines are powerless.
- Connect the supply lines corresponding to desired switching function, with the float switch cable.
- The cable-junction should be made through a suitable connection-socket and be protected against physical contact and moisture.



Attention! If there are any doubts regarding compliance to electrical specifications, or any probable danger arising through physical contact, in case of a rupture, a fault-current protection is recommended against indirect touching according to EN 50178.

After connecting external units with limit-contacts, all connection-work is complete. The unit can now be put in operation.

8. Maintenance

This float switch is almost a maintenance-free unit.
Occasionally, the cable should be inspected for damage. A float switch with damaged cable must be immediately replaced.

9. Technical Information

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

10. Order Codes

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

11. Dimensions

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

12. Recommended Parts

The float switch can be replaced only as a complete unit.

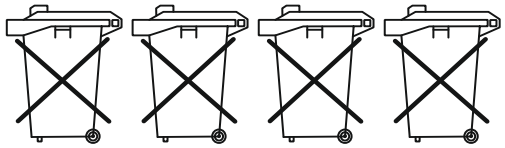
13. Disposal

Note!

- Avoid environmental damage caused by media-contaminated parts
- Dispose of the device and packaging in an environmentally friendly manner
- Comply with applicable national and international disposal regulations and environmental regulations.

Batteries

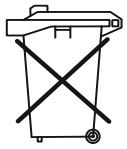
Batteries containing pollutants are marked with a sign consisting of a crossed-out garbage can and the chemical symbol (Cd, Hg, Li or Pb) of the heavy metal that is decisive for the classification as containing pollutants:



Cd[1] Hg[2] Pb[3] Li[4]

1. „Cd" stands for cadmium
2. „Hg" stands for mercury
3. „Pb" stands for lead
4. „Li" stands for lithium

Electrical and electronic equipment



14. EU Declaration of Conformance

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

Float Switches for Liquids **Model: NSP-...**

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

2014/30/EU	**EMC Directive**
2014/35/EU	**Low Voltage Directive**
2011/65/EU	**RoHS** (category 9)
2015/863/EU	Delegated Directive (RoHS III)

Also, the following standards are fulfilled:

EN 61010:2010 Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements

EN 61326:2013 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements

Hofheim, 19 Sept. 2023

H. Volz
General Manager

J. Burke
Compliance Manager

15. UK Declaration of Conformity

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

Float Switches for Liquids **Model: NSP-...**

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

S.I. 2016/1091	**Electromagnetic Compatibility Regulations 2016**
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 61010-1:2010+A1:2019
Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements

BS EN 61326-1:2013
Electrical equipment for measurement, control and laboratory use. EMC requirements. General requirements

Hofheim, 19 Sept. 2023

H. Volz
General Manager

J. Burke
Compliance Manager