

Operating Instruction for Float Switch

Model: NSM



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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 machinery directive.

3. Instrument Inspection

These devices are checked before shipping and sent out in perfect condition. Should 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 delivery:

Standard scope of delivery applies:

- Float switch, model: NSM

4. Regulation Use

These units of type NSM are employed for purposes of monitoring the filling-level status of liquids. Only such liquids may be measured which are compatible with the materials used in the construction of these units.

Float switches are usable as switching elements for level control in almost any situation, where a two-point control is sufficient to solve the problem under consideration. These devices are easy to install and practically maintenance-free. Float switches represent an inexpensive solution while offering high reliability at the same time.

5. Operating Principle

The float switch consists of a body with built-in micro-switch. The supplied contact is a change-over type (SPDT), which can be used selectively as a N.O. or N.C. contact.

The contact switches when exceeding or falling short of the horizontal float position. Setting switch point is carried out through on-site assembly of the switch at the desired position by cable-clamping. When top mounting, the switching point is determined by means of ballast cable weights.

6. Mechanical Connection

The float switch cable is fastened centrally between the lower and upper levels. The switching angle of the switch is approx. 45° . Thus, the difference in level is about 1.4 times that of free cable length.

Example: Free cable-length 10 cm
Level difference approx. 14cm

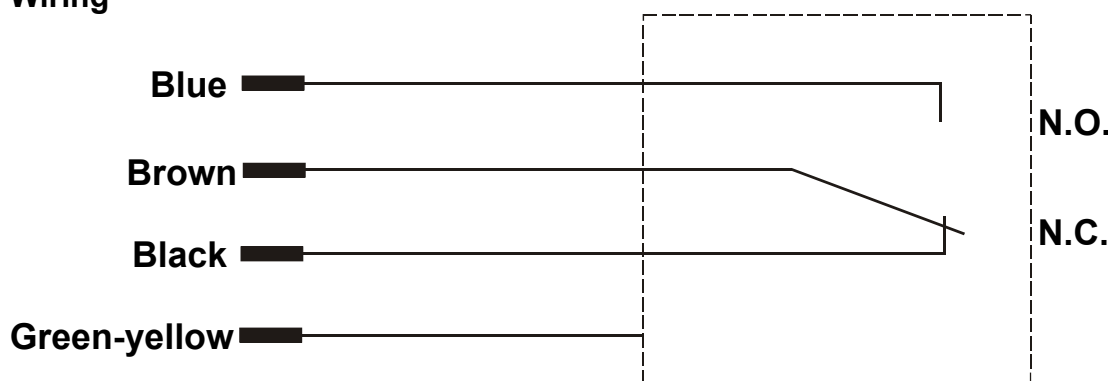
Attention: The bending radius of the cable is 15-times of the cable diameter.
Neoprene cable: approx. 11 cm

The cable should not be bound with strap-hardened cable binder and not in a vertical direction, if possible. The use of bending protection trumpets is recommended.

7. Electrical Connection

The maximum electrical load of the switch is indicated on the instrument sticker.

Wiring



Yellow-green: Ground
 Blue-brown: N.O. with increasing level
 Brown-black: N.C. with increasing level



Note! Water can penetrate the cut-end jacketing of the cable and seep along the line into the switch. Do not allow the liquid to rise above this end. The wiring should be connected either in a dry area or in a junction-box, satisfying the safety class IP65 requirement (or better). The use of a ground-fault-interrupting circuit breaker is recommended.

After connecting desired external devices to the limit-contact, the device is ready for use.

8. Maintenance

Providing that, the medium to be measured is not contaminated, the NSM unit is maintenance-free.

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

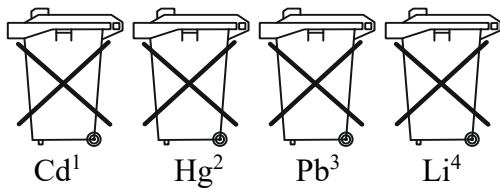
12. Disposal

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.

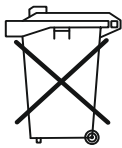
Batteries

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:



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

Electrical and electronic equipment



13. EU Declaration of Conformance

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

Float Switch Type: NSM...

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

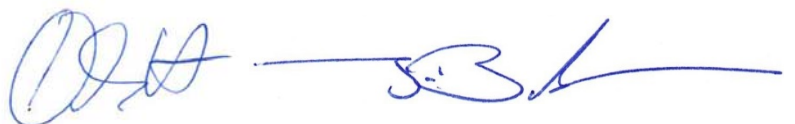
2014/35/EU	Low Voltage Directive
2011/65/EU	RoHS

Also, the following standards are fulfilled:

EN 60730-1:2012 Automatic electrical controls for household and similar use - Part 1: General requirements

EN 60730-2-15:2011 Automatic electrical controls for household and similar use - Part 2-15: Particular requirements for automatic electrical air flow, water flow and water level sensing controls

Hofheim, 19 Sept 2023



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