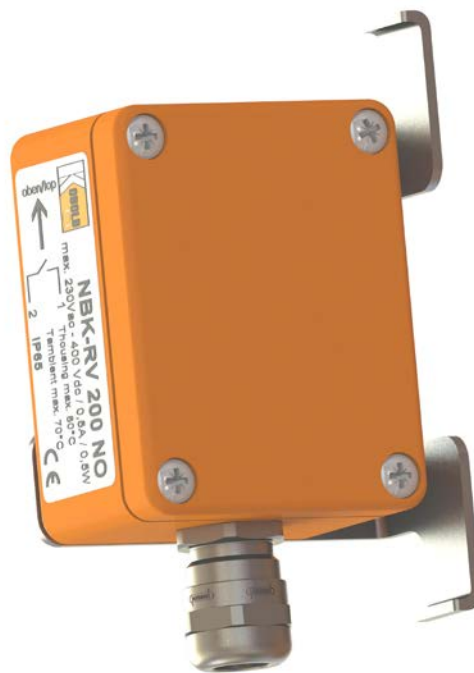


Operating Instructions for Level switch model

**Model: NBK-RV200NO/NC
and NBK-RN200NO/NC**



We don't accept warranty and liability claims neither upon this publication nor in case of improper treatment of the described products.

The document may contain technical inaccuracies and typographical errors. The content will be revised on a regular basis. These changes will be implemented in later versions. The described products can be improved and changed at any time without prior notice.

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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

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:

- Level switchmodel: NBK-RV200NC/NO or NBK-RN200NC/NO

4. Regulation Use

Any use of the Level switch, model: NBK-RV200NC/NO or NBK-RN200NC/NO, which exceeds the manufacturer's specification, may invalidate its warranty. Therefore, any resulting damage is not the responsibility of the manufacturer. The user assumes all risk for such usage.

5. Operating Principle

The KOBOLD type NBK-RV200Nx/NBK-RN200Nx level switches can be used on all KOBOLD magnetically-operated level gauges. The switching behaviour is **bistable**. Should the electrical supply fail and return, the position of the impulse magnet will be "memorised". Because of its low mass switching element this level switch is particularly suitable in installations with strong vibrations, The level switch type NBK-RV200NO/NC is reduced to a Reed miniswitch for low level AC/DC loads.

The level switch type NBK-RN200NO/NC is additionally equipped with 2 resistors to meet the 2-wire NAMUR specification ($R_s=1k$, $R_p=10k$).

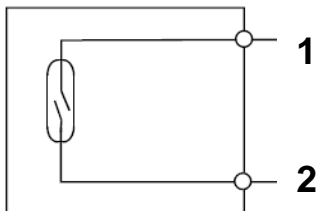


fig.1: Principle schematic of the NBK-RV200NO/NC

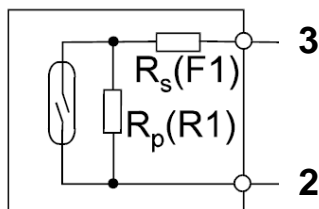


fig.2: Principle schematic of the NBK-RN200NO/NC

6. Mechanical Connection

The mounting of the switch is done by an pipe clamp as shown in Fig. 3/4. The cable gland is directed downwards in any case. The switching point is situated nearby the middle of the box. The heat protection is situated between the switch box and the mounting bracket.

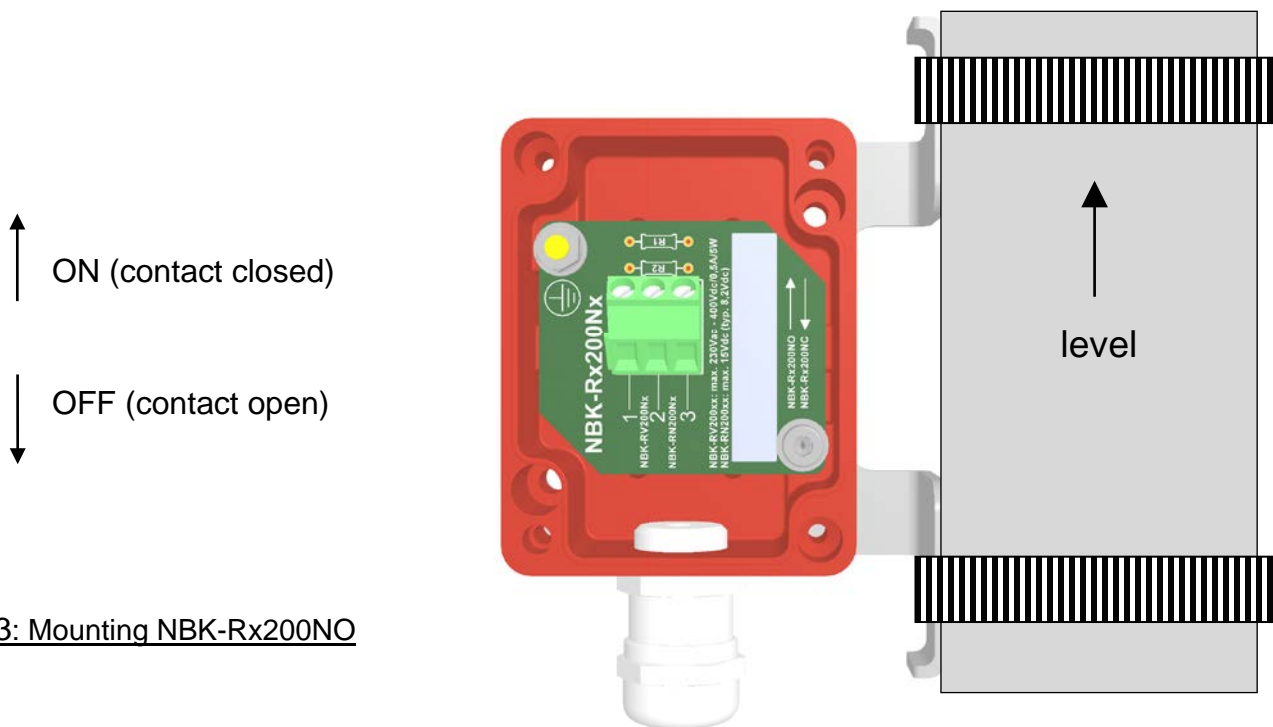


fig.3: Mounting NBK-Rx200NO

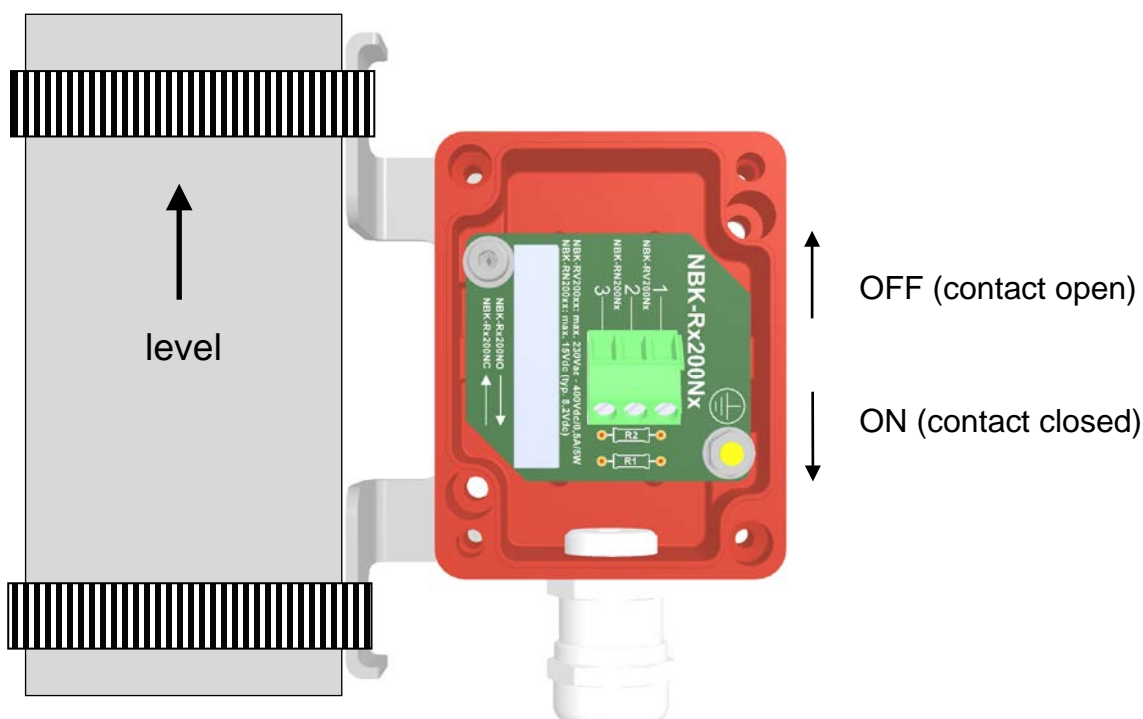


fig.4: Mounting NBK-Rx200NC

7. Electrical connection

Authorised skilled personnel only recommended to connect the electrical circuits.

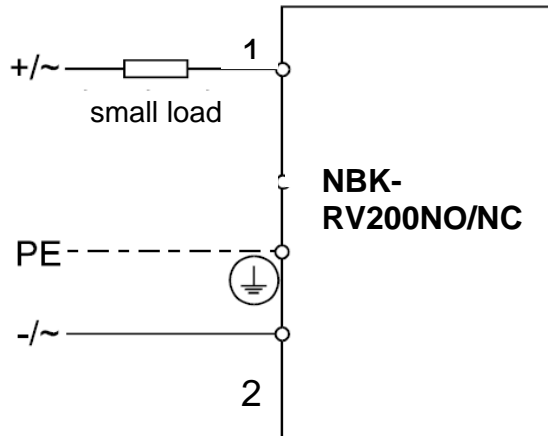


fig. 5: electrical connection NBK-RV200NO/NC

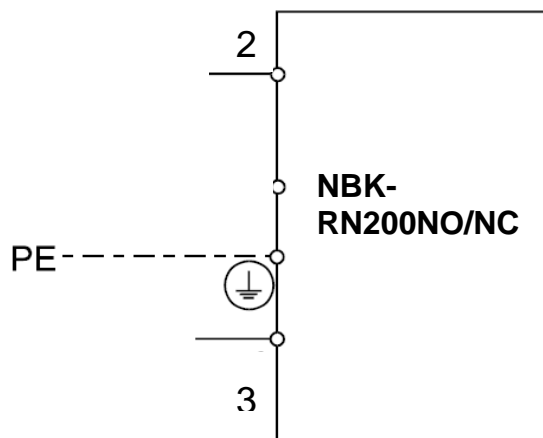


fig. 6: electrical connection NBK-RN200NO/NC

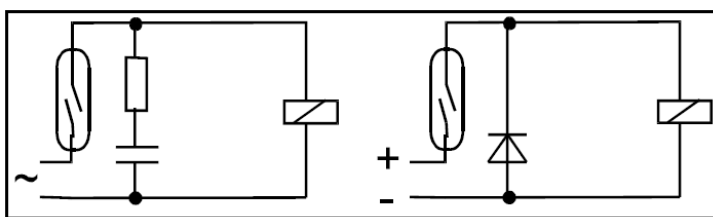


fig. 7: safety precautions for Reed switch in DC and AC application

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

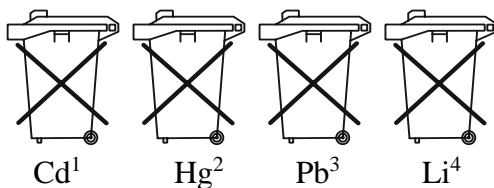
11. Disposal

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.

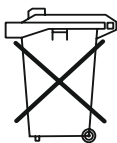
Batteries

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



12. EU Declaration of Conformance

We, KOBOLD Messring GmbH, Hofheim-Ts, Germany, declare under our sole responsibility that the product:

Level Switch Model: **NBK-RV200NO/NC** and **NBK-RN200NO/NC**

to which this declaration relates is in conformity with the standards noted below:

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

Additional for NBK-RN200Nx:

DIN EN 60947-5-6:2000

Low-voltage switchgear and controlgear - Part 5-6: Control circuit devices and switching elements, DC interface for proximity sensors and switching amplifiers (NAMUR)

Also, the following EC guidelines are fulfilled:

2011/65/EU
2015/863/EU

RoHS (category 9)
Delegated Directive (RoHS III)

Hofheim, 17 March 2023



H. Volz
General Manager



M. Wenzel
Proxy Holder