

**Operating Instructions**  
**for**  
**Tilt Level Switch for solids**

**Model: NAS**



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**

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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.koboldusa.com](http://www.koboldusa.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.@koboldusa.com](mailto:info.@koboldusa.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.koboldusa.com](http://www.koboldusa.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**

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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:

- Tilt Level Switch    model: NAS

## **4. Regulation Use**

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Any use of the device, 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.

# NAS

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## 5. Operating Principle

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The tilt level switch model NAS has been designed to provide high level measurement in silos or any other type of storage containers located in non-hazardous areas. The NAS can be used in all grain solid applications with acceptable minimum density and grain size.

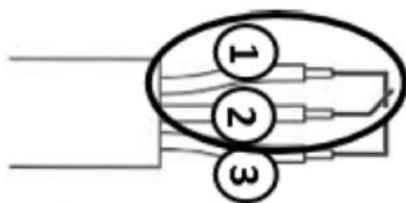
Its operation is very simple: Vertically suspended at the desired high level point, the NAS will tilt as the grain reaches the unit.

## 6. Electrical Connection

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Back up Fuse: max. 20 A

Power: 50...250 VAC/24...250 VCC



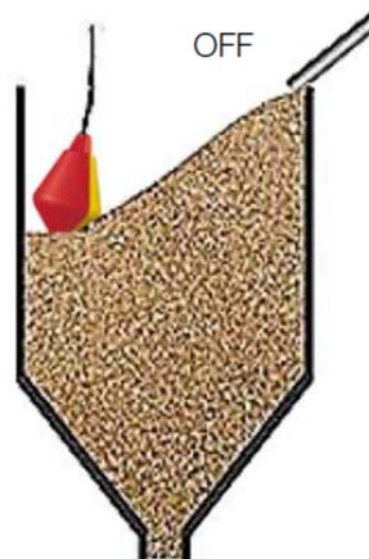
- 1 Blue
- 2 Brown
- 3 Isolated

## 7. Operation / Configuration / Adjustments

### Filling



When the silo fills up, the level sensor is suspended vertically.



When the high level is reached, the level sensor tilts and stops filling the silo.

**IMPORTANT!** The NAS level sensor must be installed opposite the arrival of the product, and at a certain distance from the wall, in order to ensure an optimal movement.

Manual filling of the silos may cause the sensor to malfunction.

### NKF



Do not use a cable tie that could damage the cable and damage the device. The NKF (cable clamp) is an accessory that allows you to properly attach the electric cable to the desired height without hurting the cable.

## 8. Technical Information

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Operating instructions, data sheet, approvals and further information via the QR code on the device or via [www.koboldusa.com](http://www.koboldusa.com)

## 9. Order Codes

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Operating instructions, data sheet, approvals and further information via the QR code on the device or via [www.koboldusa.com](http://www.koboldusa.com)

## 10. Dimensions

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Operating instructions, data sheet, approvals and further information via the QR code on the device or via [www.koboldusa.com](http://www.koboldusa.com)

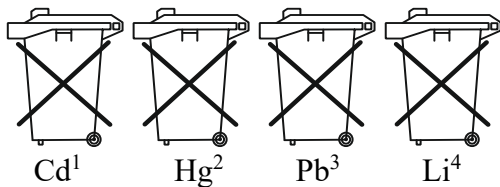
## 11. Disposal

### 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.

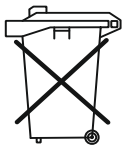
### Batteries

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

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

**Tilt Level Switch**

**Model: NAS**

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

**EN IEC 60730-2-15:2019 (Classification C47-745)**

Automatic electrical controls - Part 2-15: Particular requirements for automatic electrical air flow, water flow and water level sensing controls

Also, the following EC guidelines are fulfilled:

**2014/30/EU**

**EMC Directive**

**2014/35/EU**

**Low Voltage Directive**

**2011/65/EU**

**RoHS (category 9)**

**2015/863/EU**

**Delegated Directive (RoHS III)**

Hofheim, 16 May 2023



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