

**Operating Instructions**  
**for**  
**Bimetal temperature switch for liquids**

**Model: TBS**



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.kobold.com](http://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](mailto: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](http://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.

The minimum service life is 100,000 switching cycles at a maximum of 150 ° C if the switching capacities specified in the operating instructions are observed

**as per PED 2014/68/EU**

In acc. with Article 4 Paragraph (3), "Sound Engineering Practice", of the PED 2014/68/EU no CE mark.

## **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:

- Bimetal temperature switch for liquids model: TBS

## 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.

## 5. Operating Principle

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Bimetal temperature switches are used for temperature monitoring and control. They are characterized by a long service life and operational reliability. A particular advantage is the high repeatability, since bimetal temperature switches are largely independent of ambient conditions. The bimetal temperature switches of the type TBS are supplied in a robust housing made of brass or stainless steel with female on both sides from G 1/4 to G 1 1/2 and 1.5 m silicone armoured cable and are therefore also suitable for rough use. The temperature contacts have a fixed switching point in the range from -10 ° C to 50 ° C in steps of 5 ° C and in the range from 60 ° C to 100 ° C in steps of 10 ° C and are designed as NC contacts.

### **Application**

The TBS bimetal temperature switches can be used universally. They are used wherever temperature monitoring or control is required.

## 6. Mechanical Connection

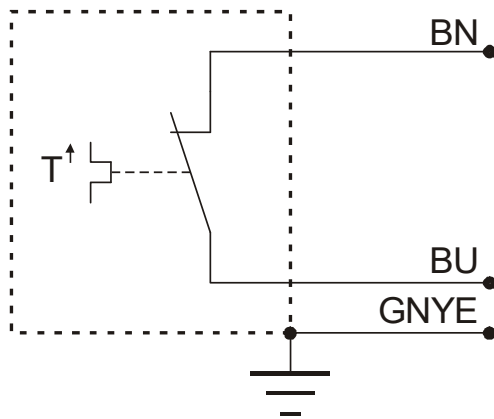
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The fitting of the bimetal temperature switch is installed with a suitable sealing material in the pipe in a thread-sealing manner. Inlet or outlet runs are not to be considered.

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## 7. Electrical Connection

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## 8. Commissioning

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After the mechanical and electrical connection, the devices are ready for operation.

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## 9. Technical Information

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

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## 10. Order Codes

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

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## 11. Dimensions

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

## 12. Disposal

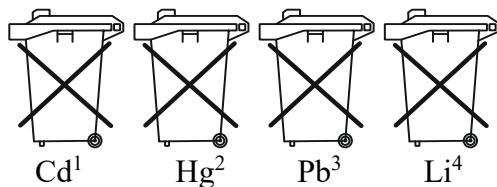
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### Note!

- 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.

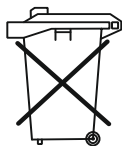
### Batteries

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



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## 13. EU Declaration of Conformance

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

**Bimetal temperature switch for liquids**

**Model: TBS**

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

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

**EN 60529:2014** Degrees of protection provided by enclosures (IP Code)

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

Also the following EC guidelines are fulfilled:

**2014/35/EU**

**Low Voltage Directive**

**2011/65/EU**

**RoHS (category 9)**

**2015/863/EU**

**Delegated Directive (RoHS III)**

Hofheim, 06 May 2024



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