



**Operating Instructions
for
Flow Indicators for Vertical Installation**

Model: DAB



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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Manufactured and sold by:

Kobold Messring GmbH
Nordring 22-24
D-65719 Hofheim
Tel.: +49(0)6192-2990
Fax: +49(0)6192-23398
E-Mail: info.de@kobold.com
Internet: www.kobold.com

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:

- Flow Indicators for Vertical Installation model: DAB

4. Regulation Use

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

Flow-through sight glasses with sight glass cylinders and flanges are designed for monitoring fluid in pipelines. It also can be equipped with a swimming ball, e.g. made of polypropylene (PP).

6. Mechanical Connection

Before installation:

- Remove all transport protections and make sure that there are no packaging parts in the device.
- Handling flow-through sight glasses with sight glass cylinders and flanges requires special care.
- Make sure that the permitted max. operating pressures and operating temperatures of the device must not be exceeded (see technical data).
- The materials of the flow-through sight glasses and flanges must be compatible with the media in contact with them.
- Install the flowmeter in the pipeline without tension.
- Protect the measuring tube from damage from the outside.
- Avoid pressure surges in the measuring tube e.g. by quickly shutting off the flow.
- After the mechanical installation it should already be checked, whether the connection fitting / pipe is tight (see chapter Commissioning), if possible.
- If fire occurs, sealing is not guaranteed.

The installation must be carried out in a pressureless state. Dangerous liquids, gases or vapors should be drained. The installation should be tension-free. The pressure and temperature limits must be observed.

When installing in pipelines, please note:

1. Connections must be parallel to each other, so that a distortion of the housing is avoided.
2. Before installation, the pipes must be thoroughly cleaned
3. Rinse and dry the instrument

During commissioning, pay attention to leaks and eliminate the leaks by retightening the fastening elements. The system should be tested with a maximum of 1.1 times the nominal pressure.

7. Maintenance

Before servicing, ensure that the unit is depressurised, that no medium is present and that the working temperature is $<40^{\circ}\text{C}$. The cleaning should be done carefully with a clean cloth. Scratches, especially on glass components, should be avoided.

The sight glasses with sight glass cylinder and flanges must be stored clean and dry at temperatures between -10°C and $+40^{\circ}\text{C}$.

8. Replacement of the sight glass

After interruption of the liquid flow, the flange connection can be released and the instrument removed. When replacing glass components always replace the associated sealing elements. Before installing the new glass and gaskets, clean the sealing surfaces from any contamination. If the glass and gaskets are correctly inserted, the instrument can be placed back in the pipeline and the flange connection made

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

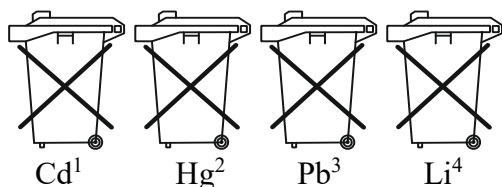
12. Disposal

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

